Environmental and Social Impact Assessment for the Gove-Chipindo-Cuvango-Jamba Transmission Line Project, Angola

Volume 3: Appendices (Supporting data and Analysis)

Report Prepared for

RNT & PAK YATIRIM

Report Number 595657/Final Vol 3_Rev 6

Report Prepared by

srk consulting

February 2025

Project Naming Clarification:
The Gove-Chipindo-Cuvango-Jamba Transmission Line Project was referred to as the Cassinga Electrical Power Supply Project during the ESIA process and stakeholder engagement.

Environmental and Social Impact Assessment for the Gove-Chipindo-Cuvango-Jamba Transmission Line Project, Angola

RNT & PAK YATIRIM

SRK Consulting (South Africa) (Pty) Ltd
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa
e-mail: johannesburg@srk.co.za
website: www.srk.co.za

Tel: +27 (0) 11 441 1111
Fax: +27 (0) 11 880 8086

SRK Project Number 595657

February 2025

Compiled by:

Kavandren Moodley
Principal Environmental Scientist

Email: KMoodley@srk.co.za

Peer Reviewed by:

Darryll Kilian
Principal Environmental Scientist and Partner

Authors:

Kavandren Moodley; Jesse Spratt; Richard Damant; Lynette Herbst; Kenneth Mahuma; Tania Oosthuizen

Environmental and Social Impact Assessment

Volume I – ESIA Report

Volume II – Environmental and Social Management Plans

Volume III – Appendices

Volume IV – Specialist Studies

Volume V – Community Surveys

Table of Contents

Appendices 1
Appendix A: Project registration 2
Appendix B: Map sheets of DAA and DIA 3
Appendix C: Maps (Soil types, land use and land capability) 4
Appendix C1: Dominant soil types 5
Appendix C2: Land uses in study area 6
Appendix C3: Land potential in study area 7
Appendix D: Hydrology (Crossings and measured hydrology) 8
Appendix D1: River crossings 9
Appendix D2: River crossings hydrology 10
Appendix E: Floral and faunal maps 11
Appendix E1: Floral habitat units in study area 12
Appendix E2: Sensitivity maps of floral and faunal assessments 13
Appendix F: Socio-economic finds from villages 14
Appendix G: Stakeholder Engagement Plan (SEP) 15
Appendix H: Background Information Document (BID) 16
Appendix I: Reconnaissance survey (with CRR) 17
Appendix J: Stakeholder Engagement for ESIA Findings 18
Appendix J1: Comments and Responses Register 19
Appendix J2: Stakeholder Engagement Photos 20
Appendix J3: Attendance Register 21
Appendix K: Visual Methodology 22
Appendix L: Biodiversity Management Plan (BMP) and Avifauna Monitoring Programme 23
Appendix L1: Biodiversity Management Plan 24
Appendix L2: Avifauna Monitoring Programme 25
Appendix M: Waste Management Plan (WMP) 26
Appendix N: Community Health, Safety and Security (CHSS) 27
Appendix O: Land Acquisition and Resettlement Framework (LARF) 28
Appendix P: Occupational Health and Safety Plan (OHSP) 29
Appendix Q: Gender-based Violence and harassment Prevention and Response Plan 30

Appendices

Appendix A: Project registration

República de Angola

MINISTÉRIO DO AMBIENTE

Direcção Nacional de TecnologiaS Ambientais

Número do Protocolo: 5792017244

Empreendedor: 5410778197 - Rede Nacional de Transporte de Electricidade

ASSUNTO: Licença Ambiental de Instalação do projecto da Entidade Rede Nacional De Transporte De Electricidade

Os nossos respeitosos cumprimentos.

No âmbito do procedimento em epígrafe, a DNTA vem pela presente informar que após análise do **Linha de Transmissão de Electricidade de 220 Kv Gove- Chipindo- Cuvango e Subestações Associadas** conclui-se que o mesmo está modo geral conforme a legislação ambiental.

Assim sendo, esta Direcção solicita ao proponente a seguinte documentação:

- Comprovativo De Entrega Do Plano De Gestão De Resíduos
- Estudo De Impacte Ambiental
- Resumo Não Técnicos

Para que o instrumento de gestão seja analisado pelo Ministério do Ambiente é imperativo o pagamento dos emolumentos do processo de avaliação de impactos.

Sem outro assunto de momento, subscrevo-me com consideração.

Direcção Nacional de TecnologiaS Ambientais, em Luanda aos 18 de Abril de 2024.

A DIRECTORA

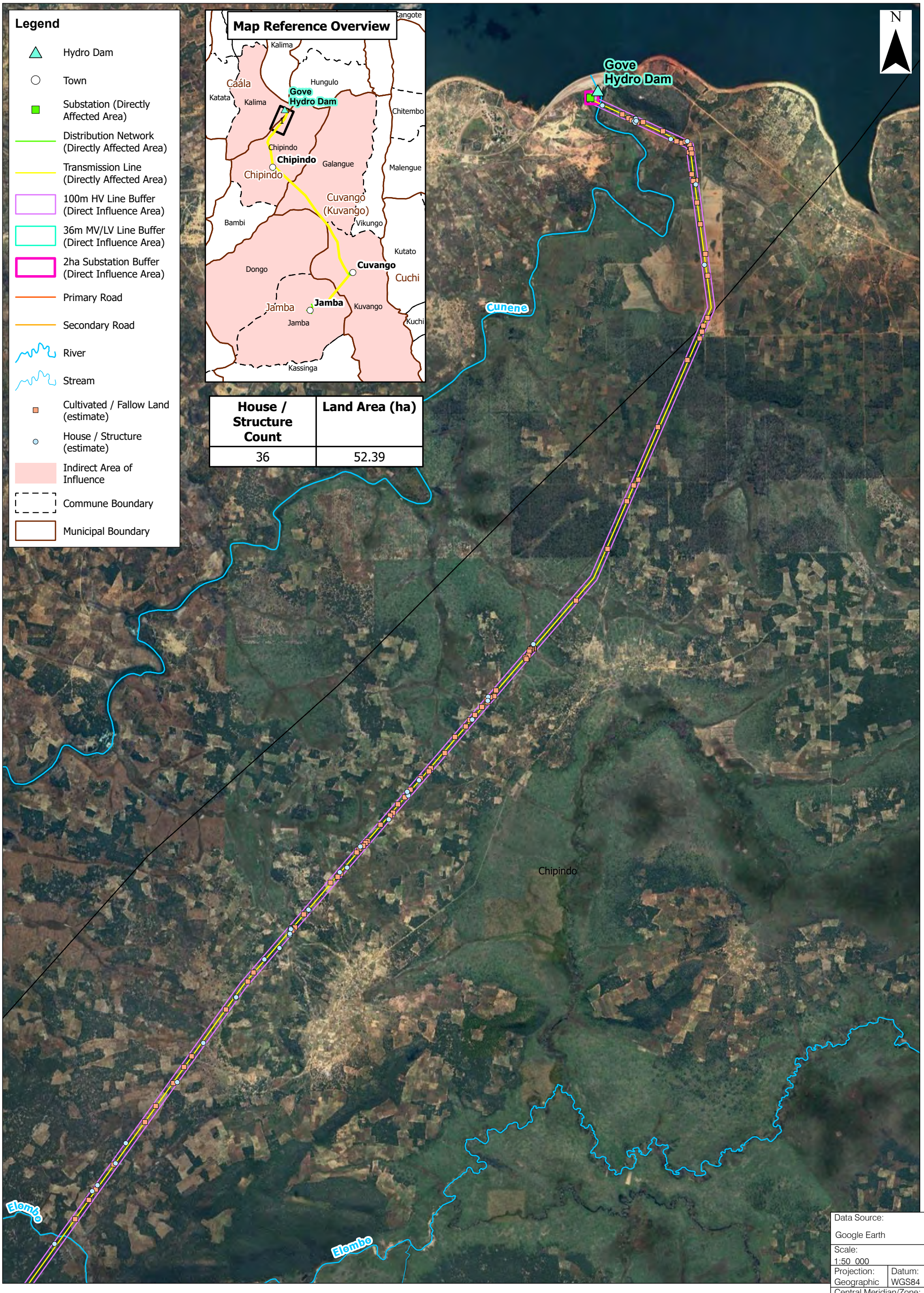
VILMA JACIRA DA SILVA PAULO M´BUMBA

Appendix B: Map sheets of DAA and DIA

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

House / Structure Count	Land Area (ha)
36	52.39



N

Data Source: Google Earth	
Scale: 1:50_000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	

srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Date:	Compiled by:
09/05/2024	LOUA
Project No. 595657	Fig No.

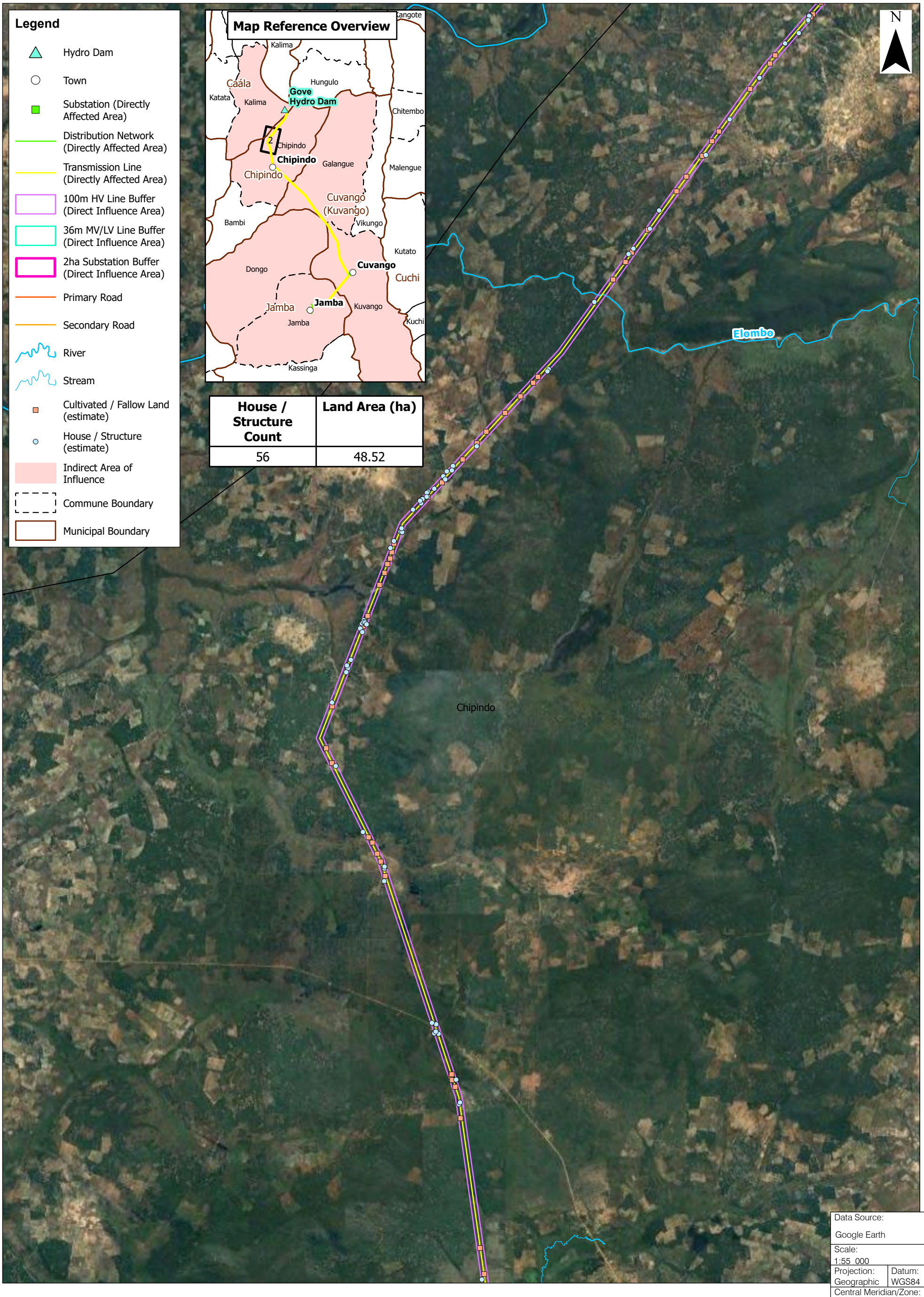
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

House / Structure Count	Land Area (ha)
56	48.52



Data Source:	Google Earth
Scale:	1:55 000
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.

srk consulting

CASSINGA POWER SUPPLY PROJECT

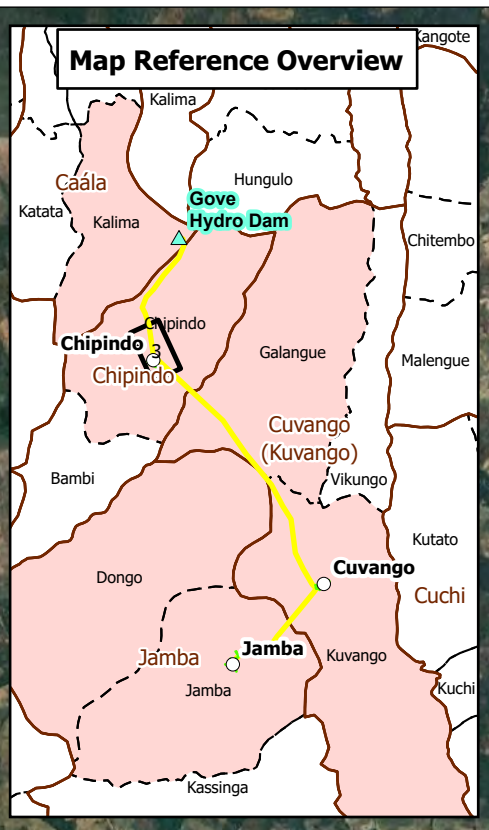
HOUSE COUNT AND LAND ESTIMATES

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:

N

Map Reference Overview



House / Structure Count	Land Area (ha)
442	36.52

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

Chissoe

Chipindo

Chipindo

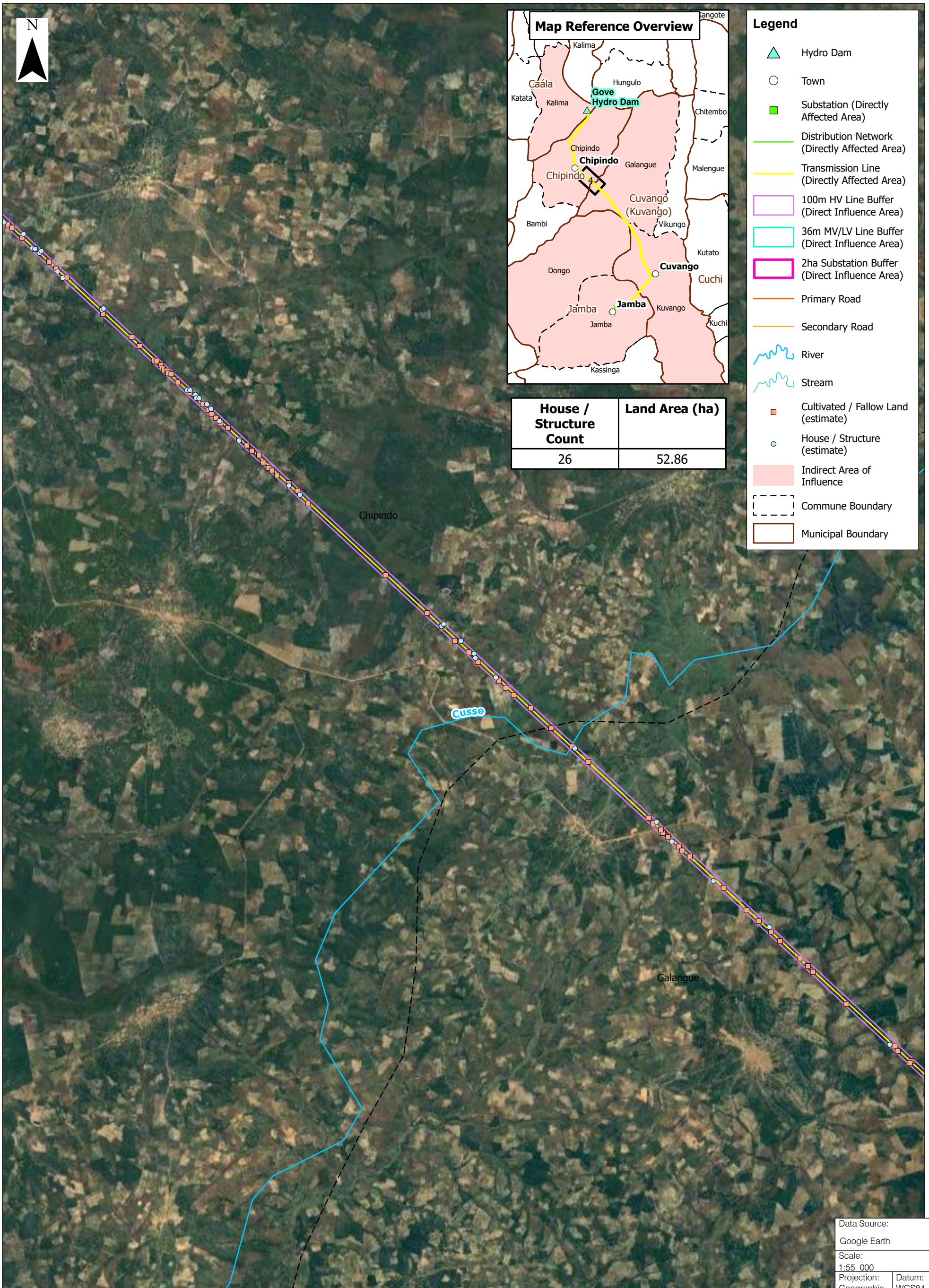
Data Source: Google Earth	
Scale: 1:50_000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.
Revision:	Date:

srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx



Map Reference Overview

House / Structure Count	Land Area (ha)
26	52.86

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

Data Source: Google Earth	
Scale: 1:55 000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	

srk consulting

CASSINGA POWER SUPPLY PROJECT

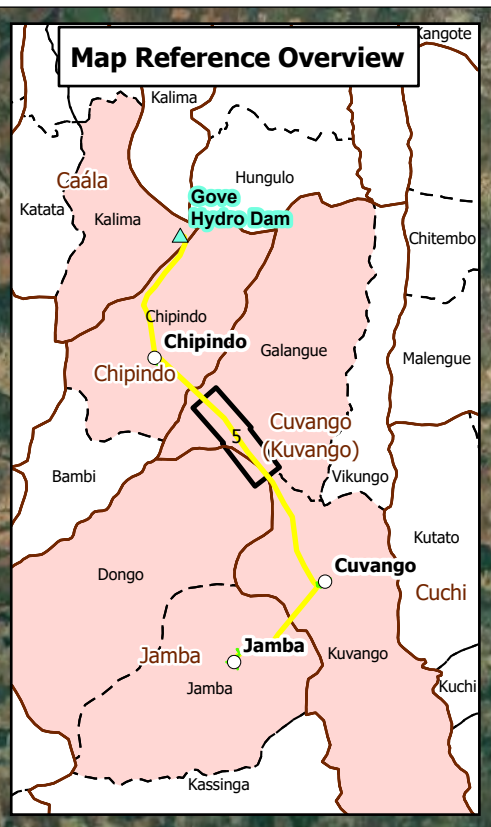
HOUSE COUNT AND LAND ESTIMATES

Date:	Compiled by:
09/05/2024	LOUA
Project No. 595657	Fig No.

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:

N



House / Structure Count	Land Area (ha)
32	138.54

Galangue

Cusso

Dongo

Colui

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

Data Source:	Google Earth
Scale:	1:85 000
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.
Revision:	Date:

srk consulting

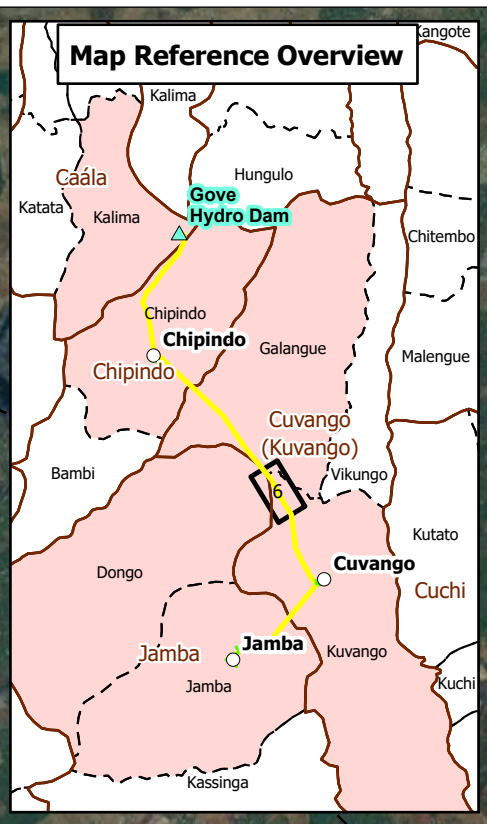
CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

N

Map Reference Overview



House / Structure Count	Land Area (ha)
9	82.05

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

Colui

Dongo

Kuvango

Vulumba

Data Source: Google Earth	
Scale: 1:50 000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.

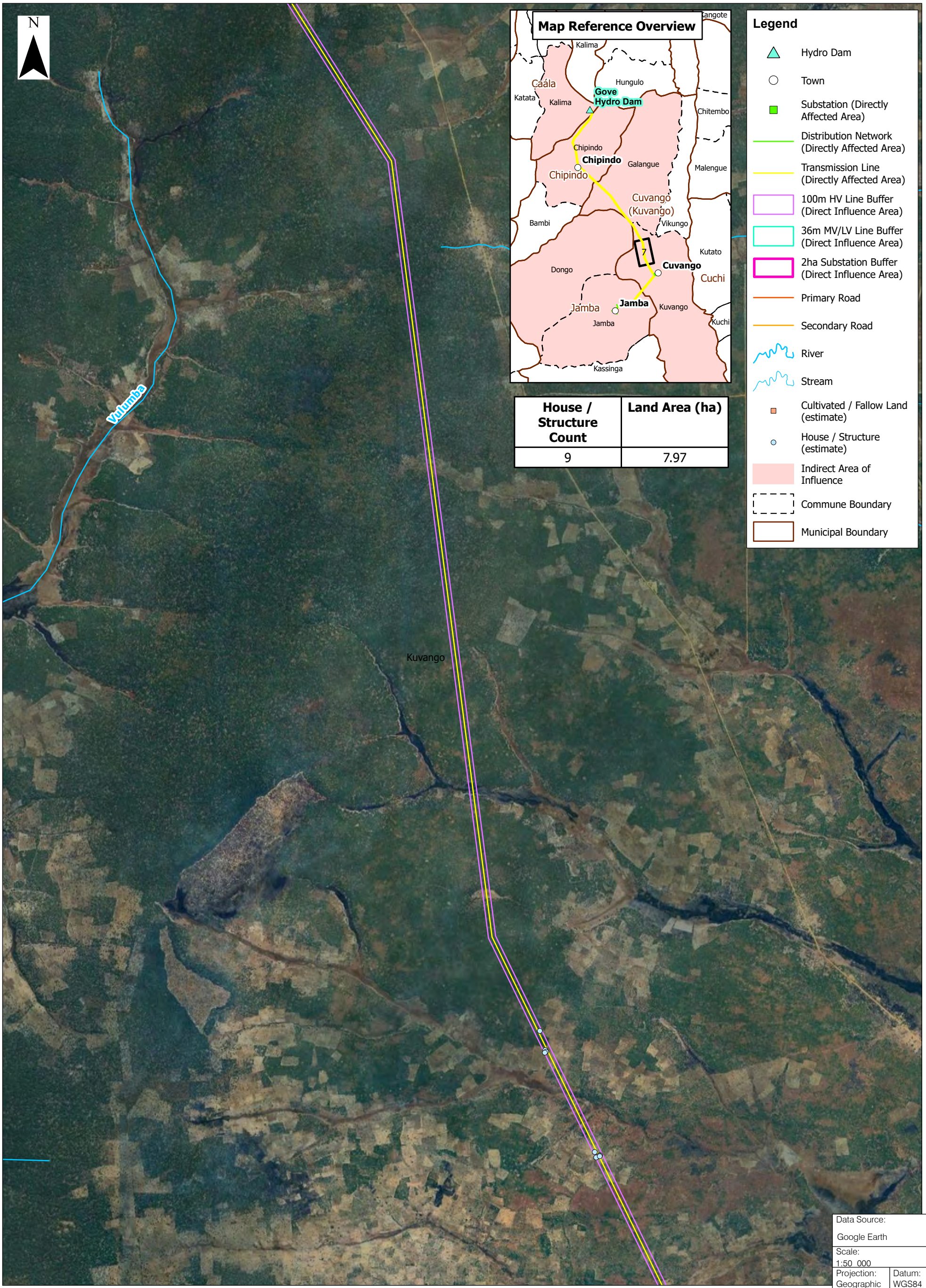
srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:



House / Structure Count	Land Area (ha)
9	7.97

Data Source: Google Earth	
Scale: 1:50 000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.

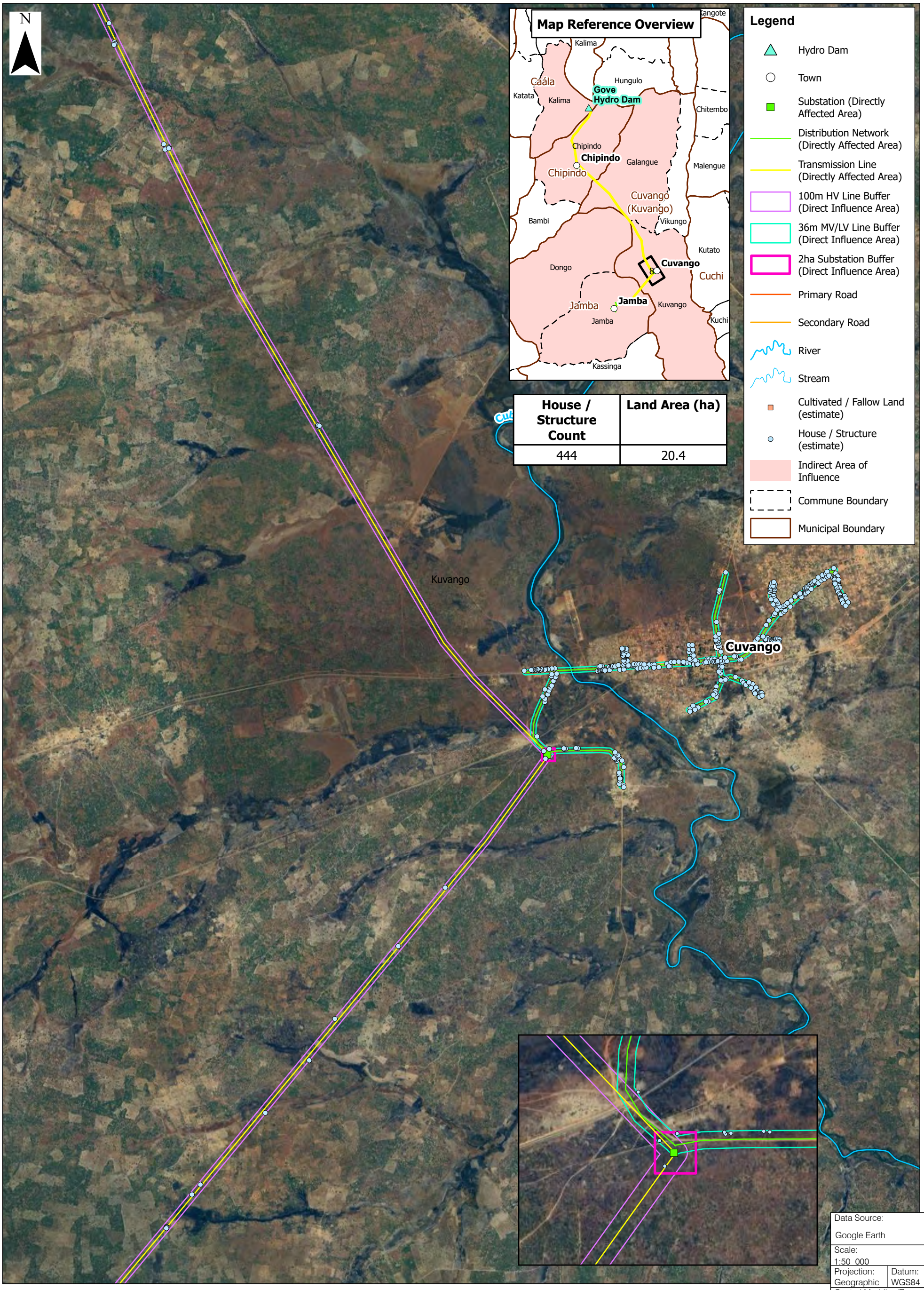
srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:



Data Source:	Google Earth
Scale:	1:50 000
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	

srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

Date: 09/05/2024	Compiled by: LOUA
Project No. 595657	Fig No.

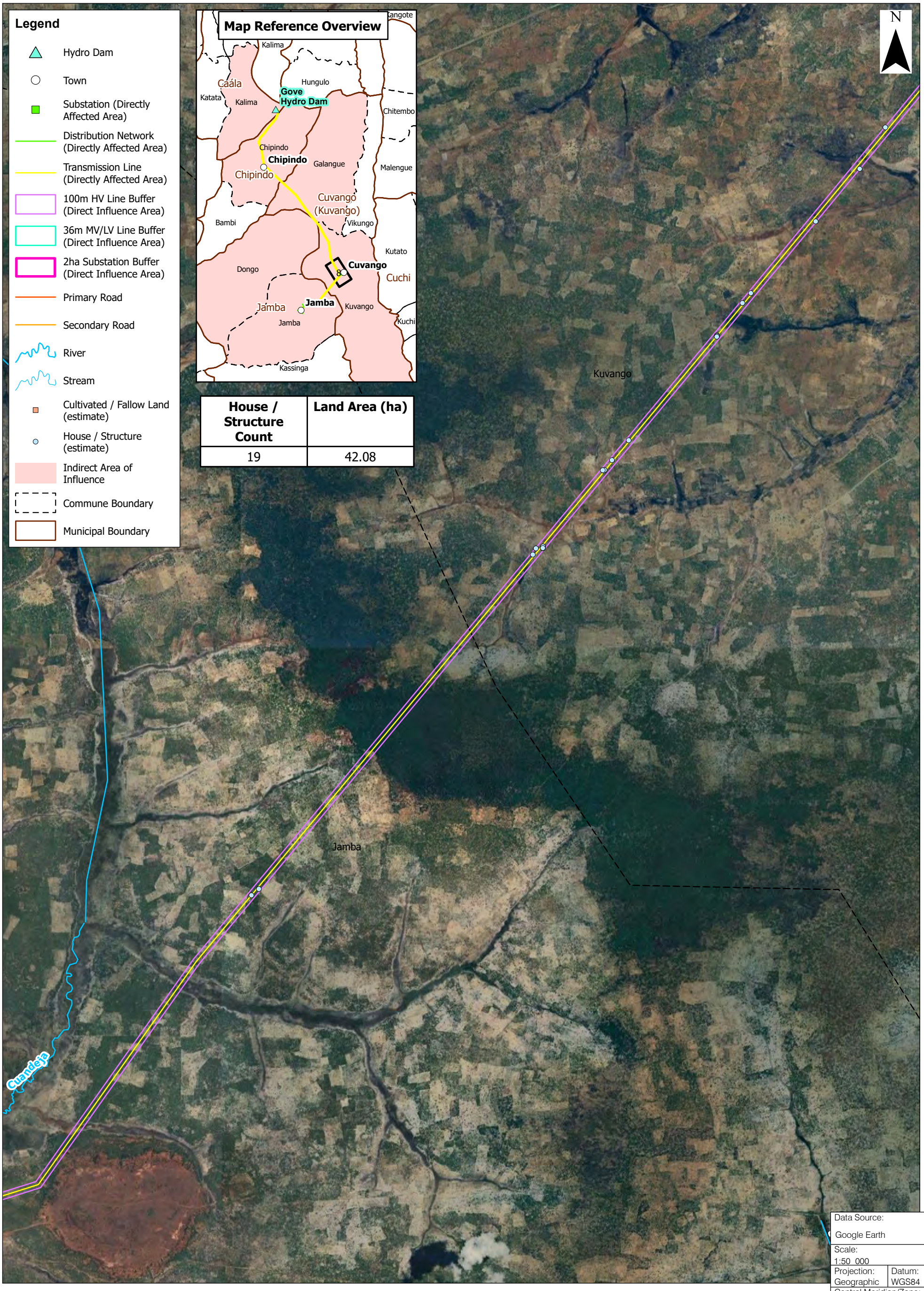
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

Revision: Date:

Legend

- Hydro Dam
- Town
- Substation (Directly Affected Area)
- Distribution Network (Directly Affected Area)
- Transmission Line (Directly Affected Area)
- 100m HV Line Buffer (Direct Influence Area)
- 36m MV/LV Line Buffer (Direct Influence Area)
- 2ha Substation Buffer (Direct Influence Area)
- Primary Road
- Secondary Road
- River
- Stream
- Cultivated / Fallow Land (estimate)
- House / Structure (estimate)
- Indirect Area of Influence
- Commune Boundary
- Municipal Boundary

House / Structure Count	Land Area (ha)
19	42.08



Data Source: Google Earth	
Scale: 1:50 000	
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	

srk consulting

CASSINGA POWER SUPPLY PROJECT

HOUSE COUNT AND LAND ESTIMATES

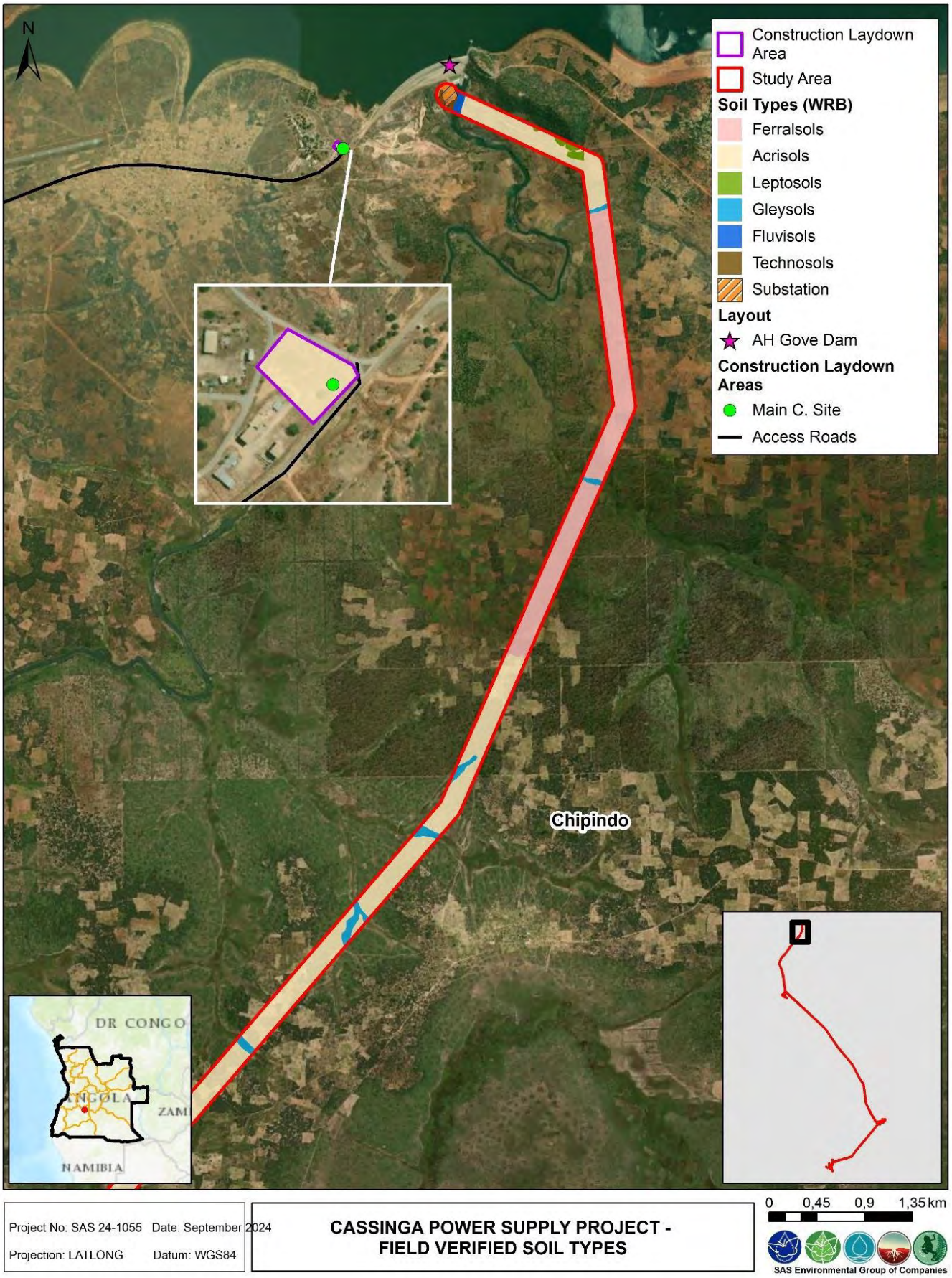
Date:	Compiled by:
09/05/2024	LOUA
Project No. 595657	Fig No.

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240517.aprx

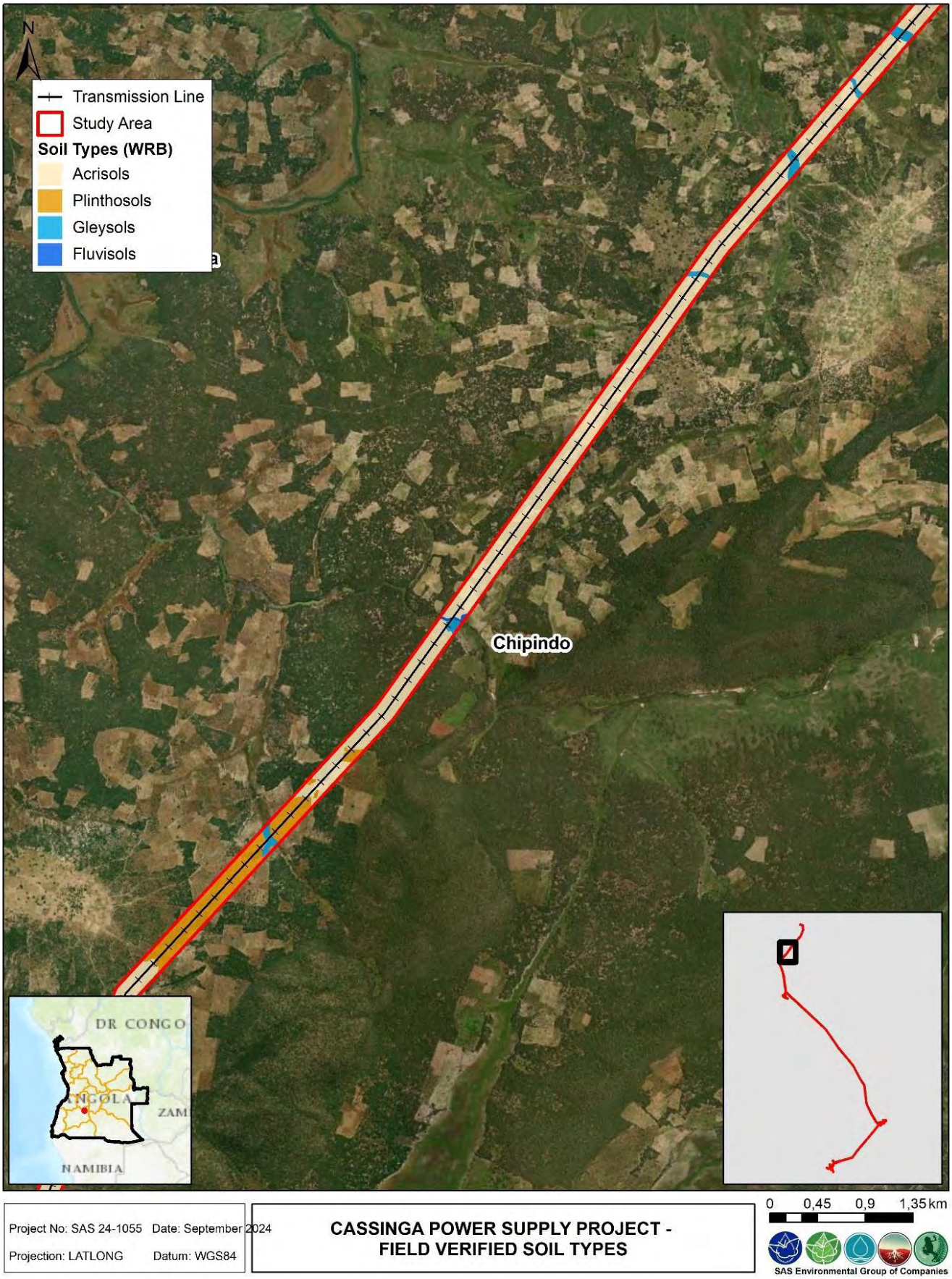
Revision: Date:

Appendix C: Maps (Soil types, land use and land capability)

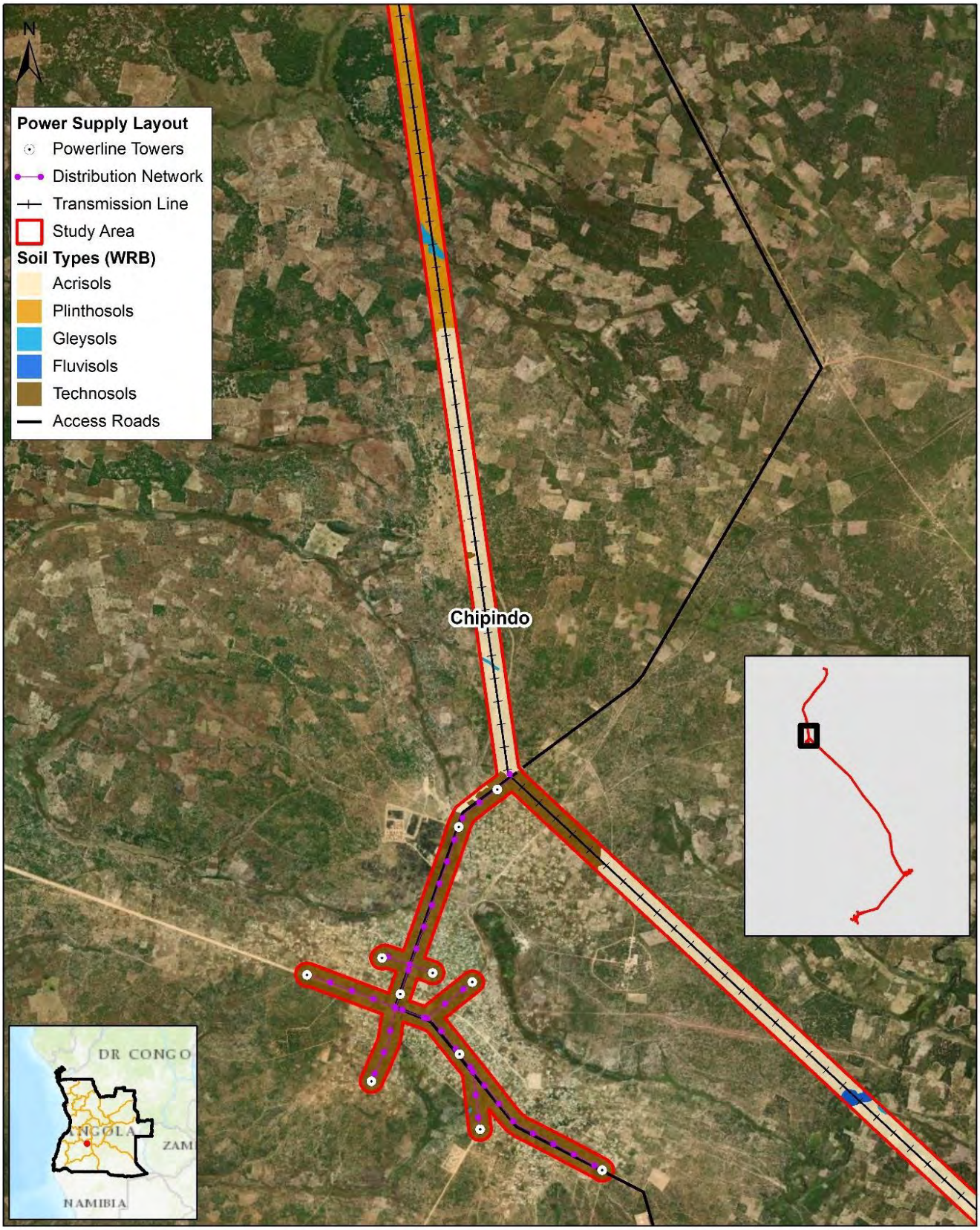
Appendix C1: Dominant soil types



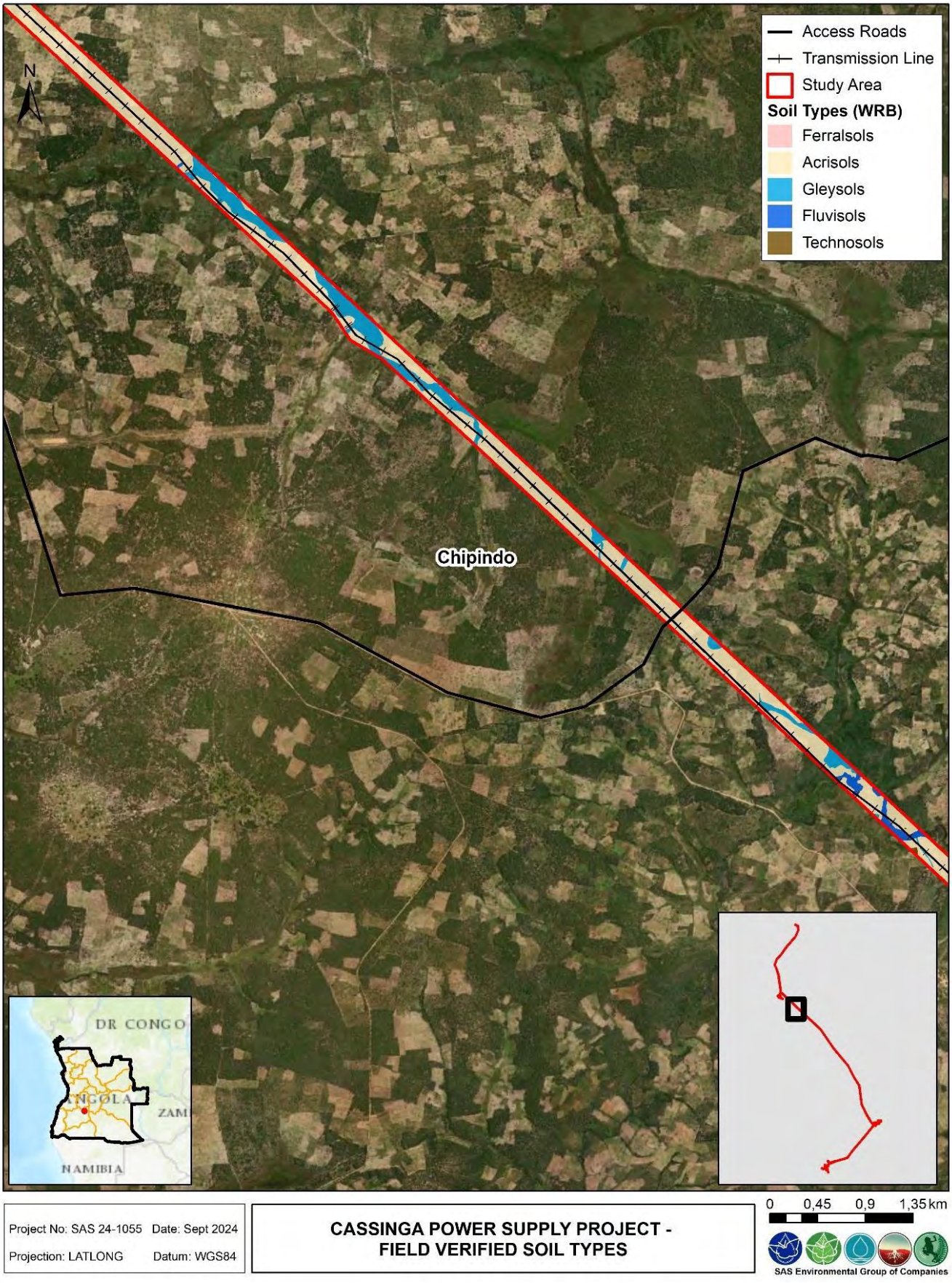
Dominant soil types associated with the study area.



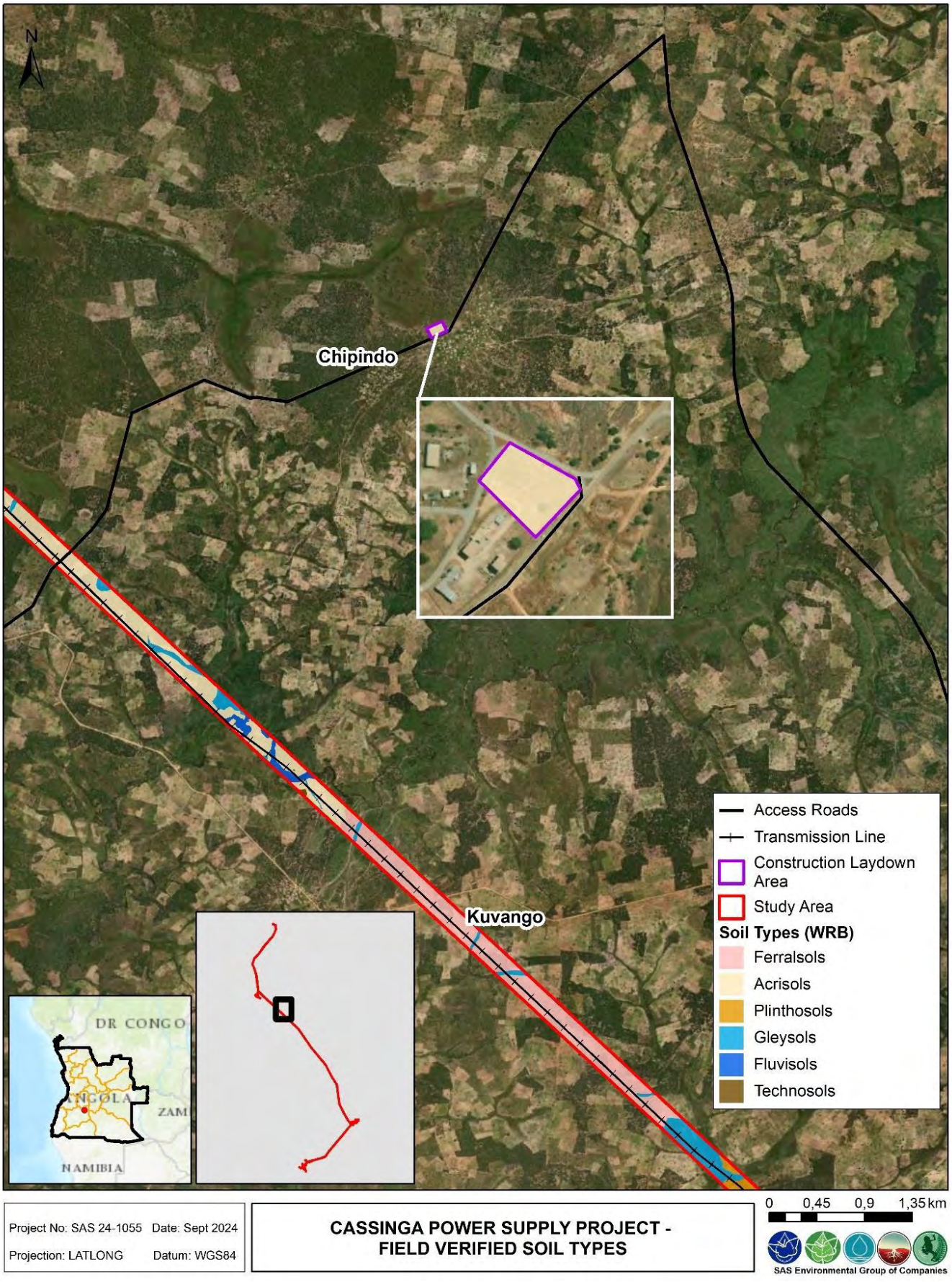
Dominant soil types associated with the study area.



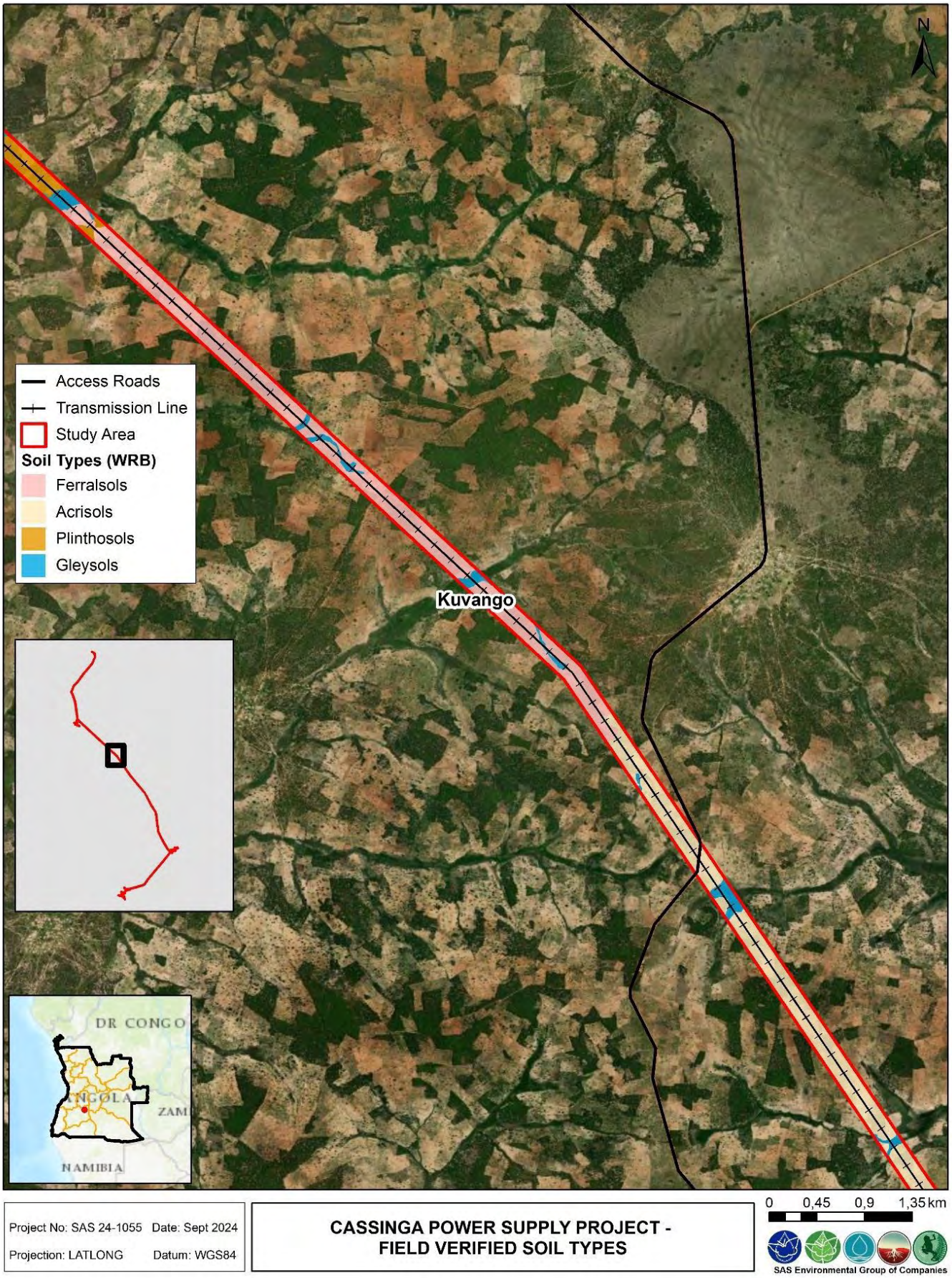
Dominant soil types associated with the study area.



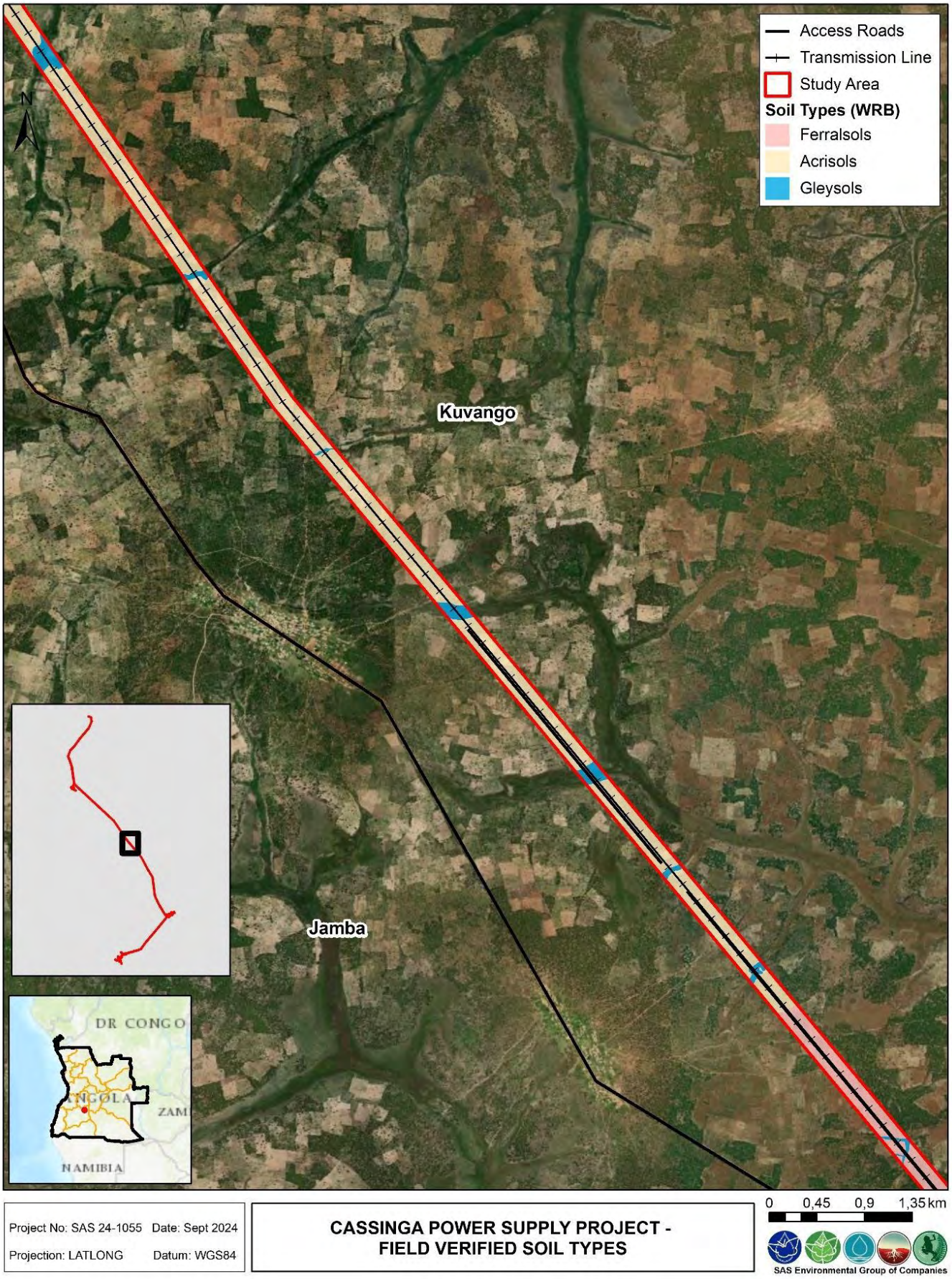
Dominant soil types associated with the study area.



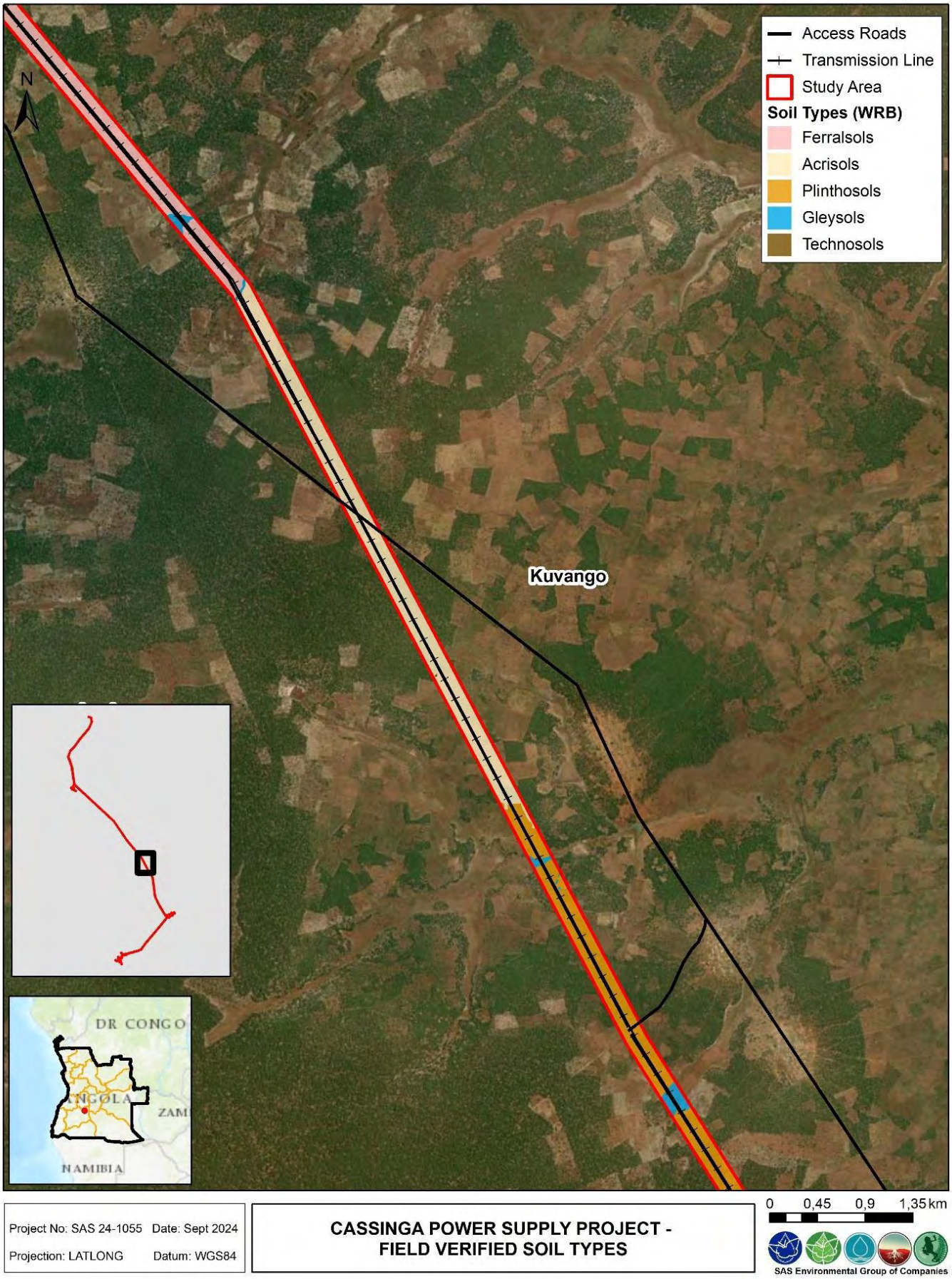
Dominant soil types associated with the study area.



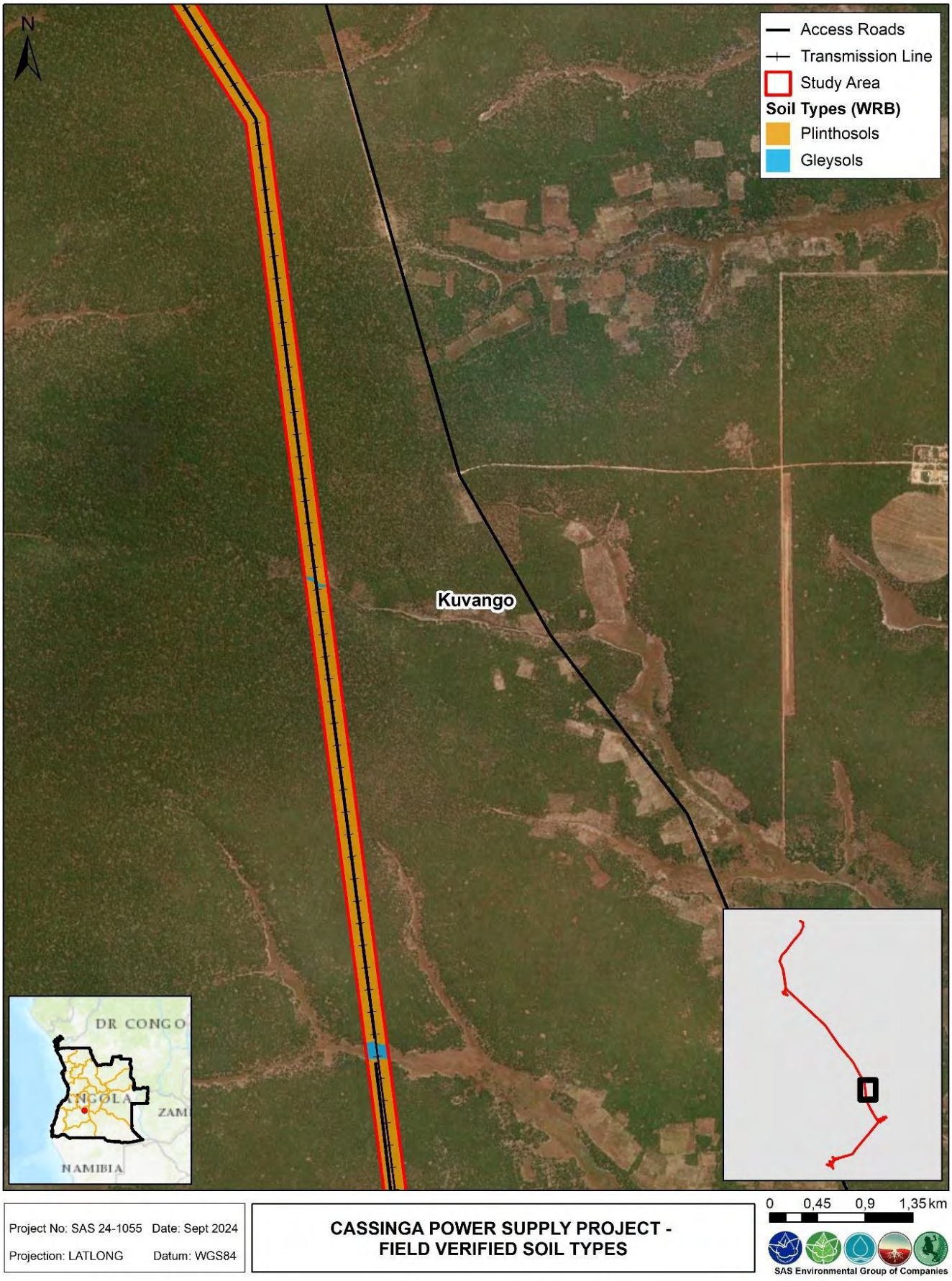
Dominant soil types associated with the study area.



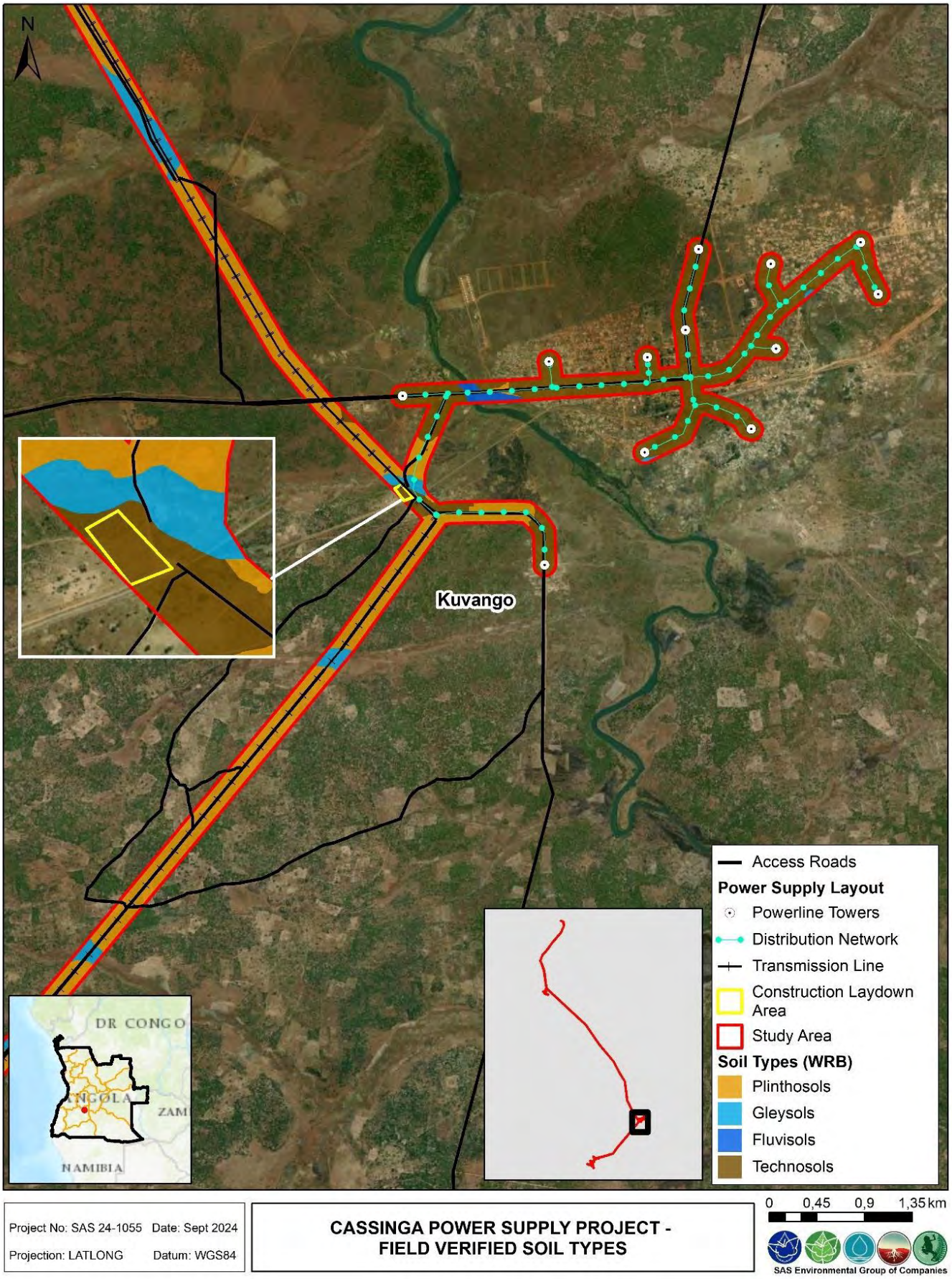
Dominant soil types associated with the study area.



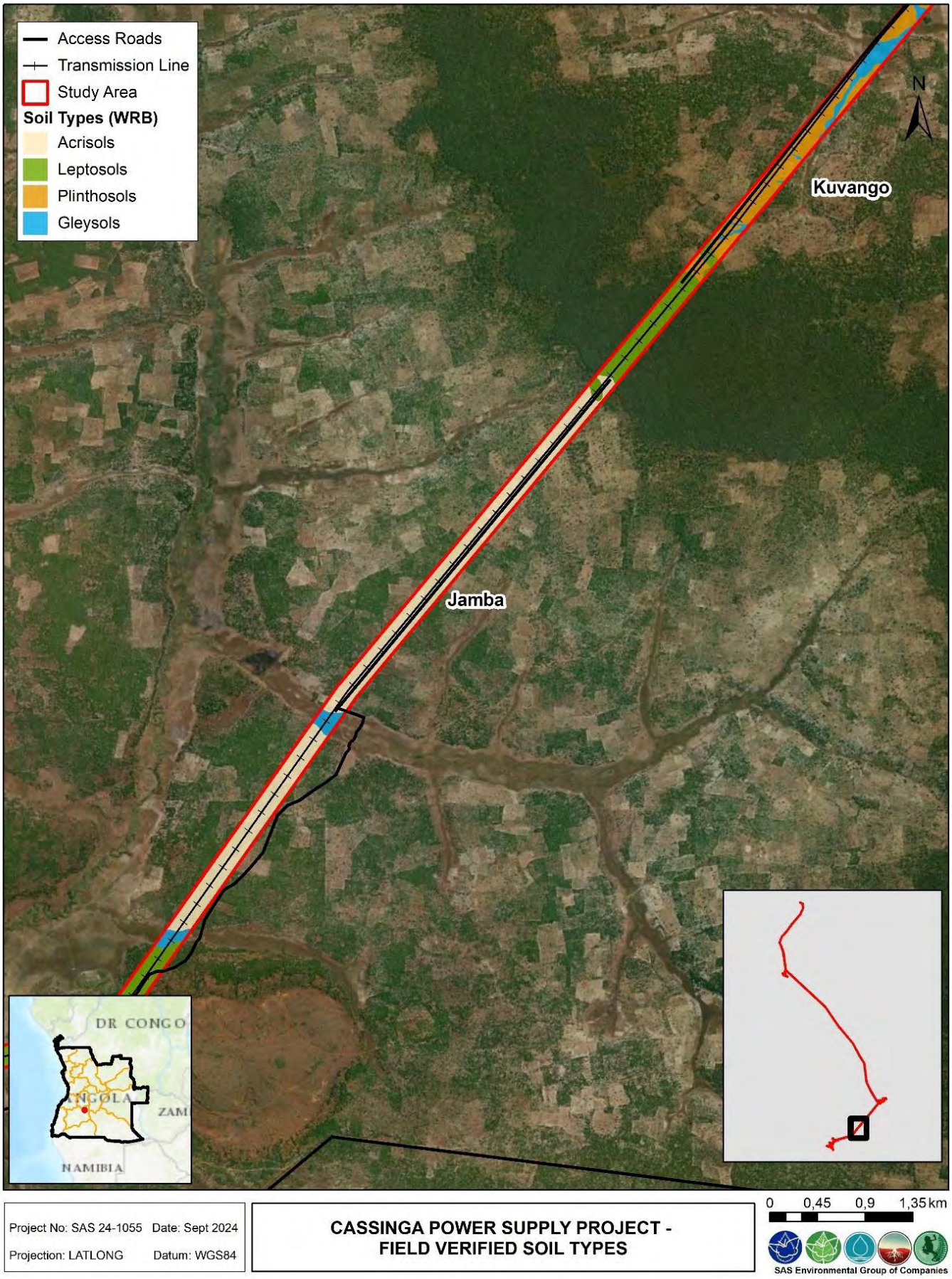
Dominant soil types associated with the study area.



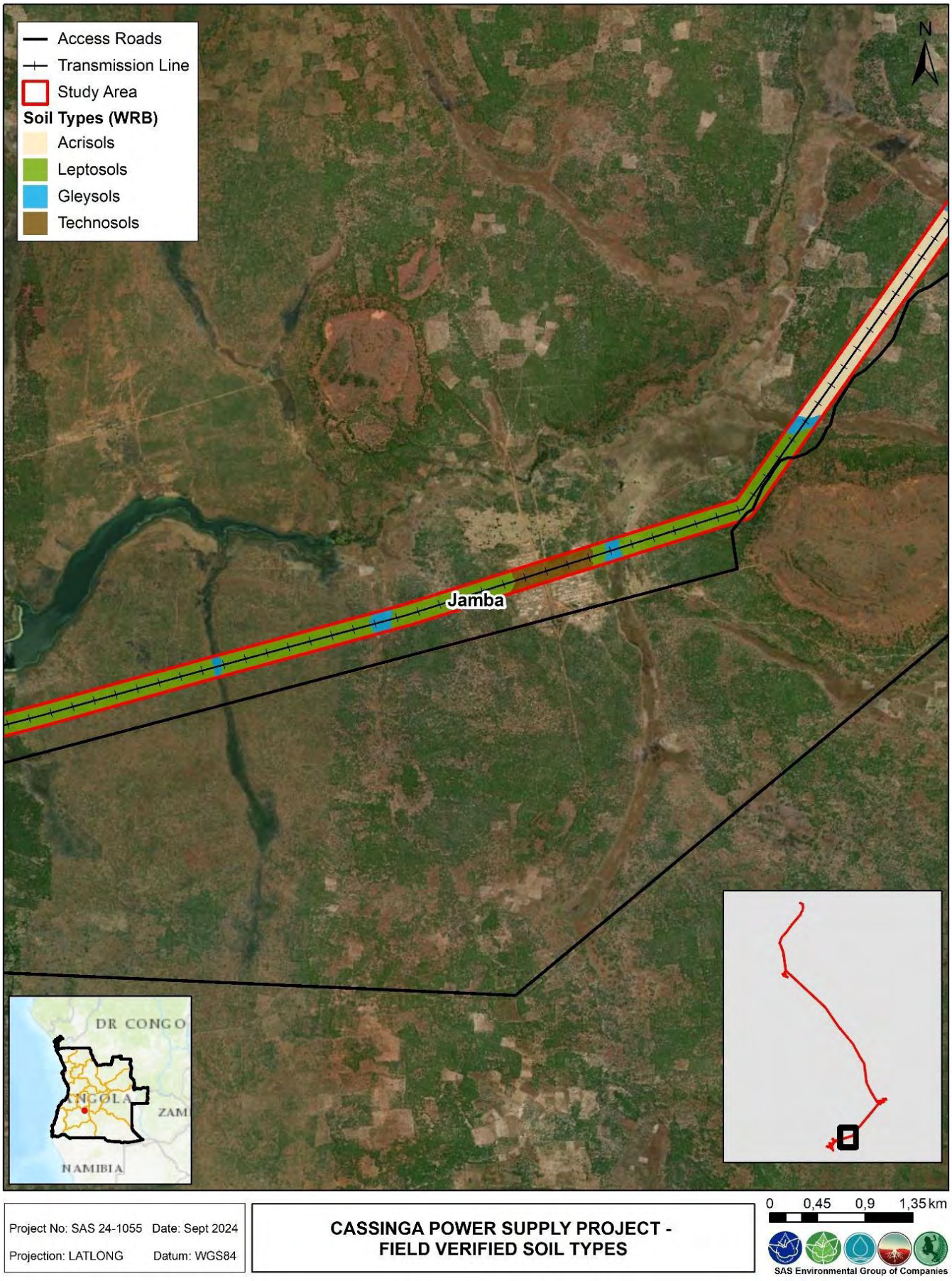
Dominant soil types associated with the study area.



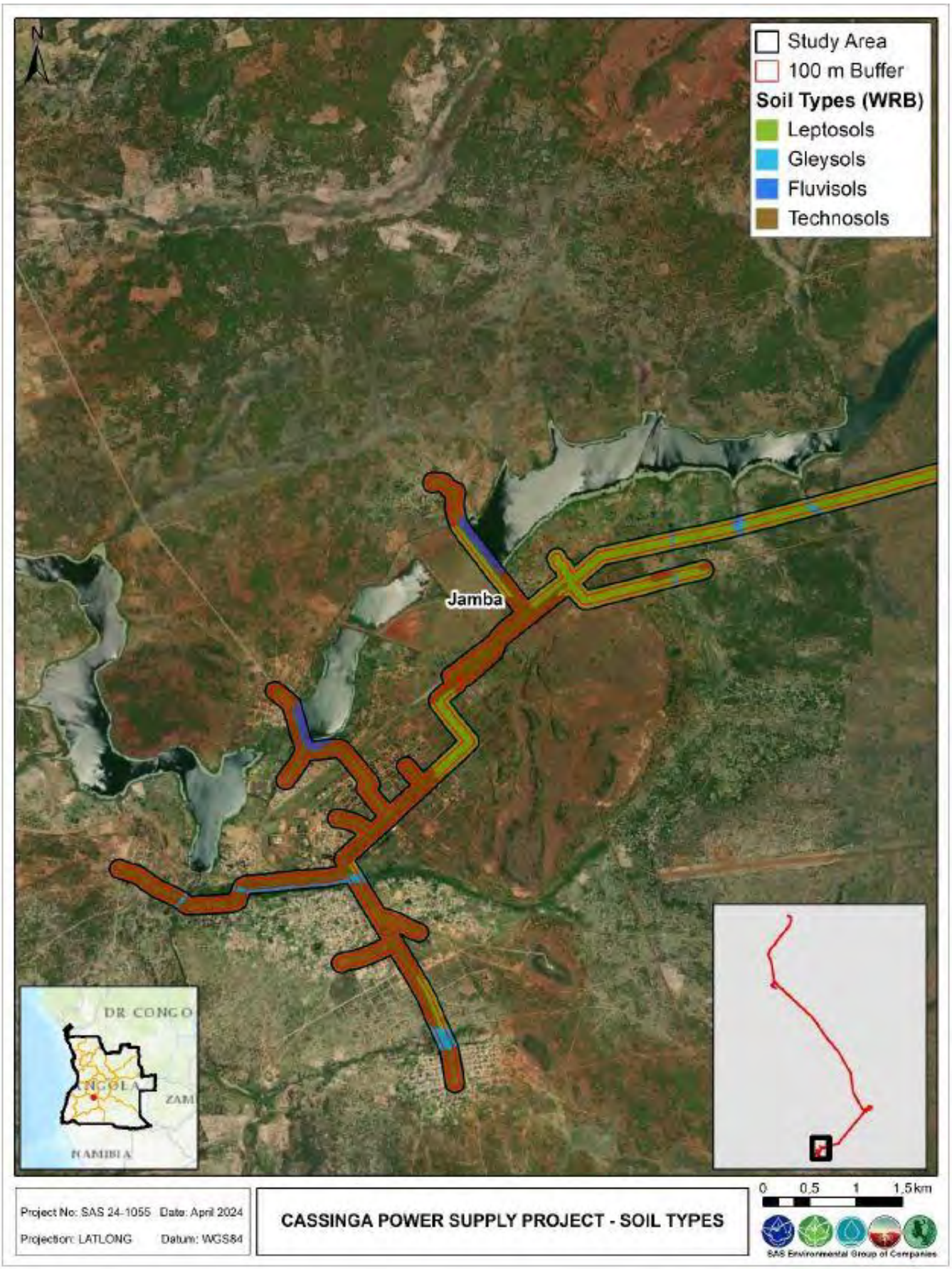
Dominant soil types associated with the study area.



Dominant soil types associated with the study area.

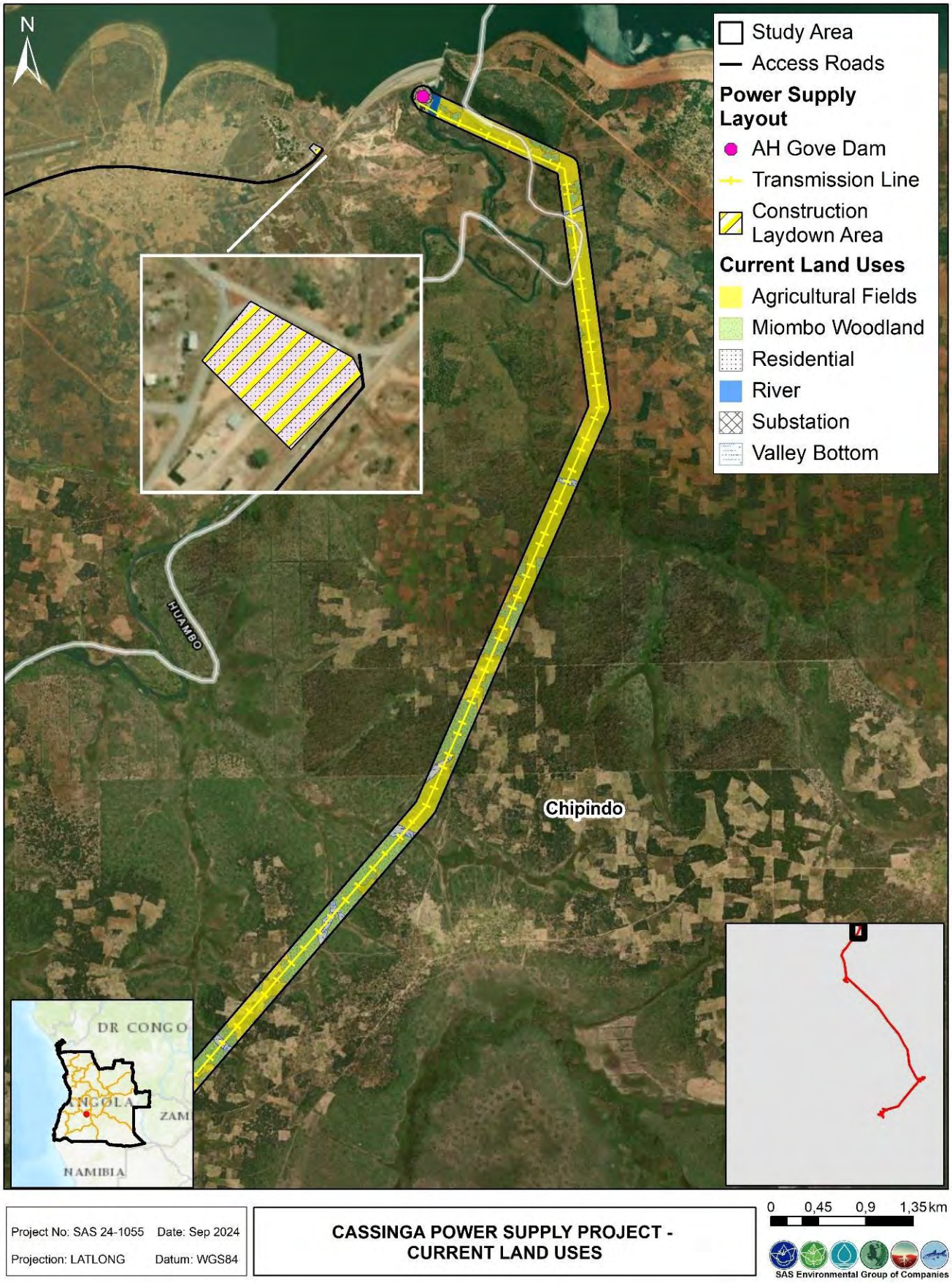


Dominant soil types associated with the study area.

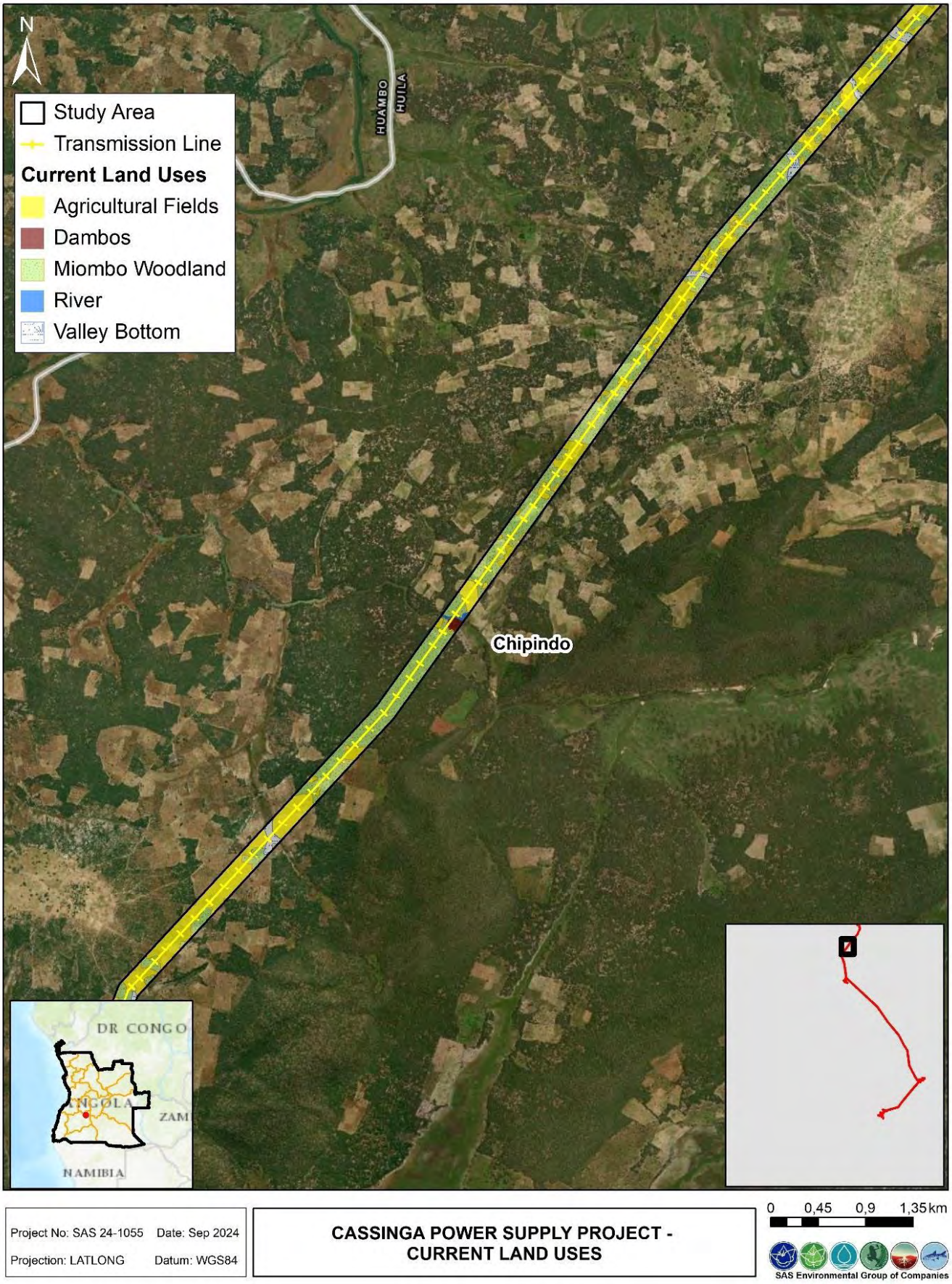


Dominant soil types associated with the study area.

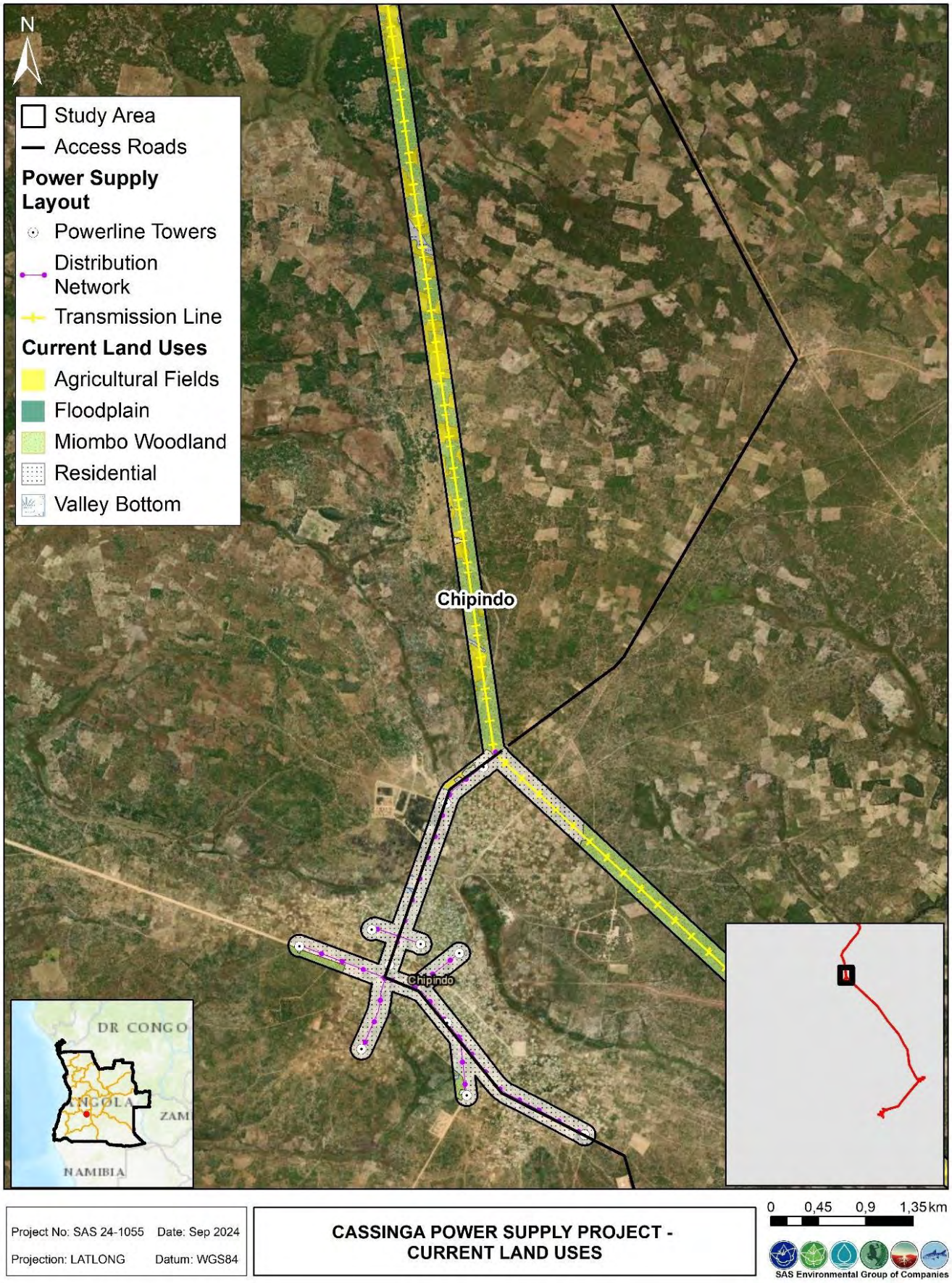
Appendix C2: Land uses in study area



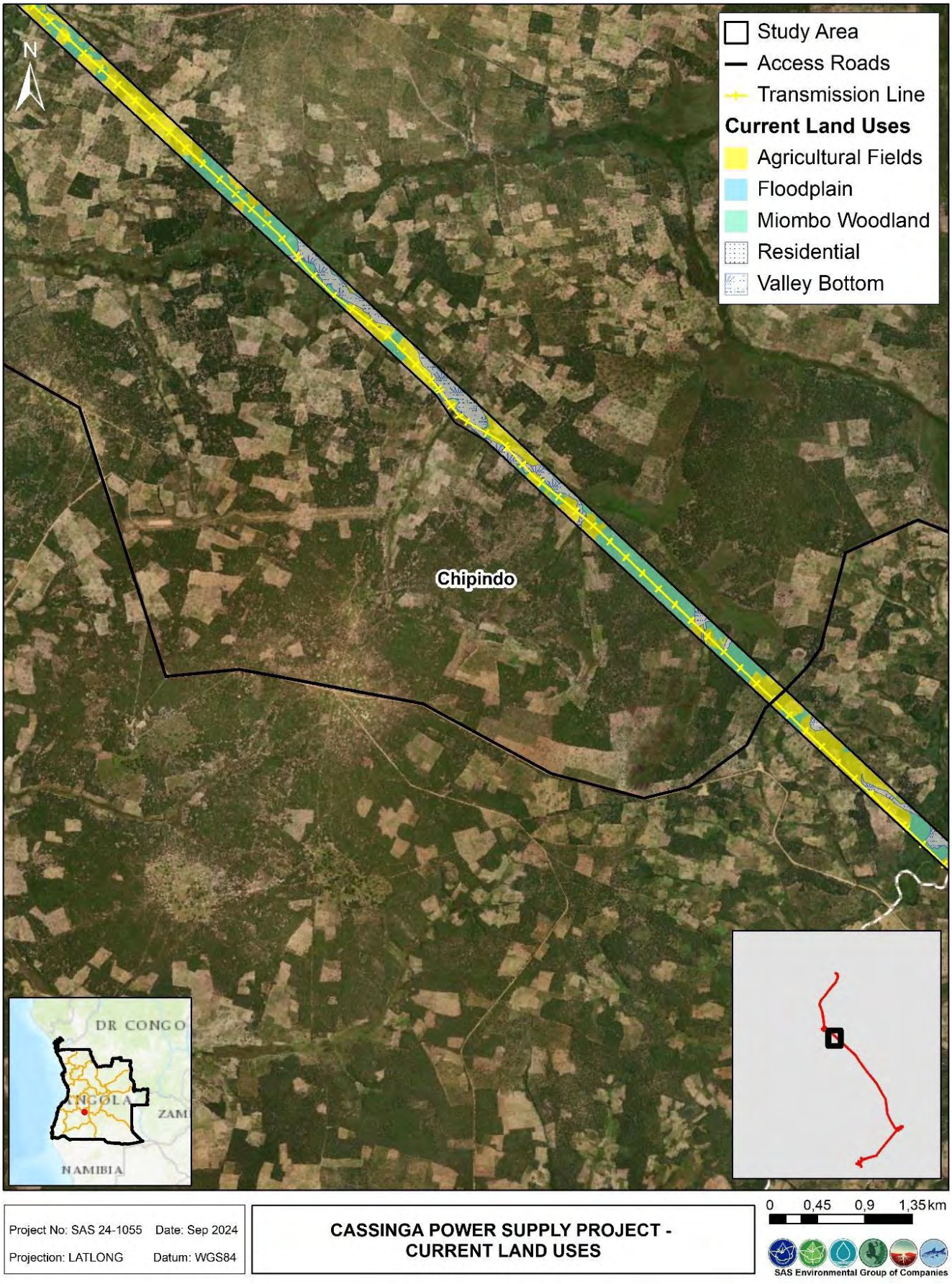
Land uses associated with the study area



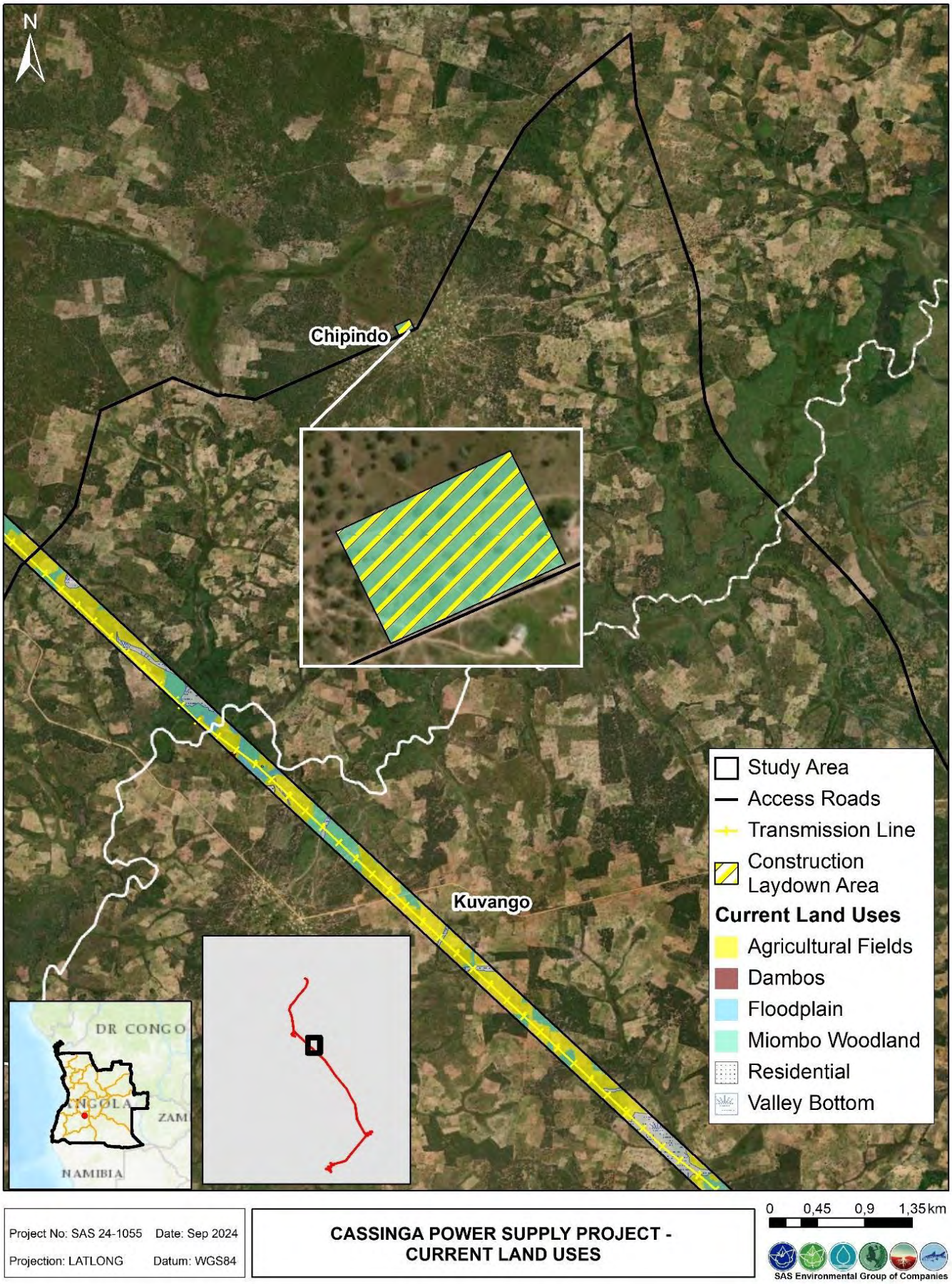
Land uses associated with the study area



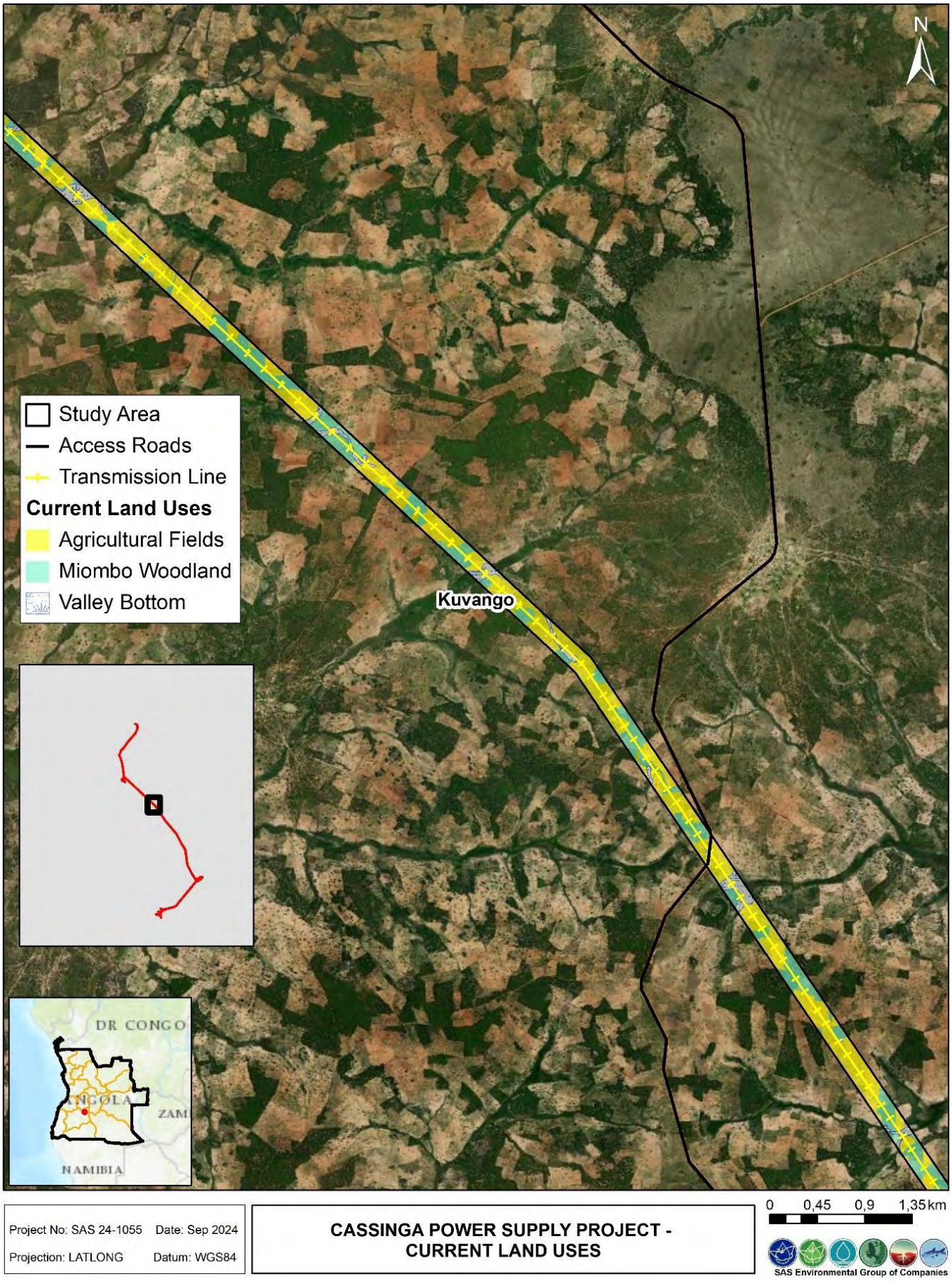
Land uses associated with the study area



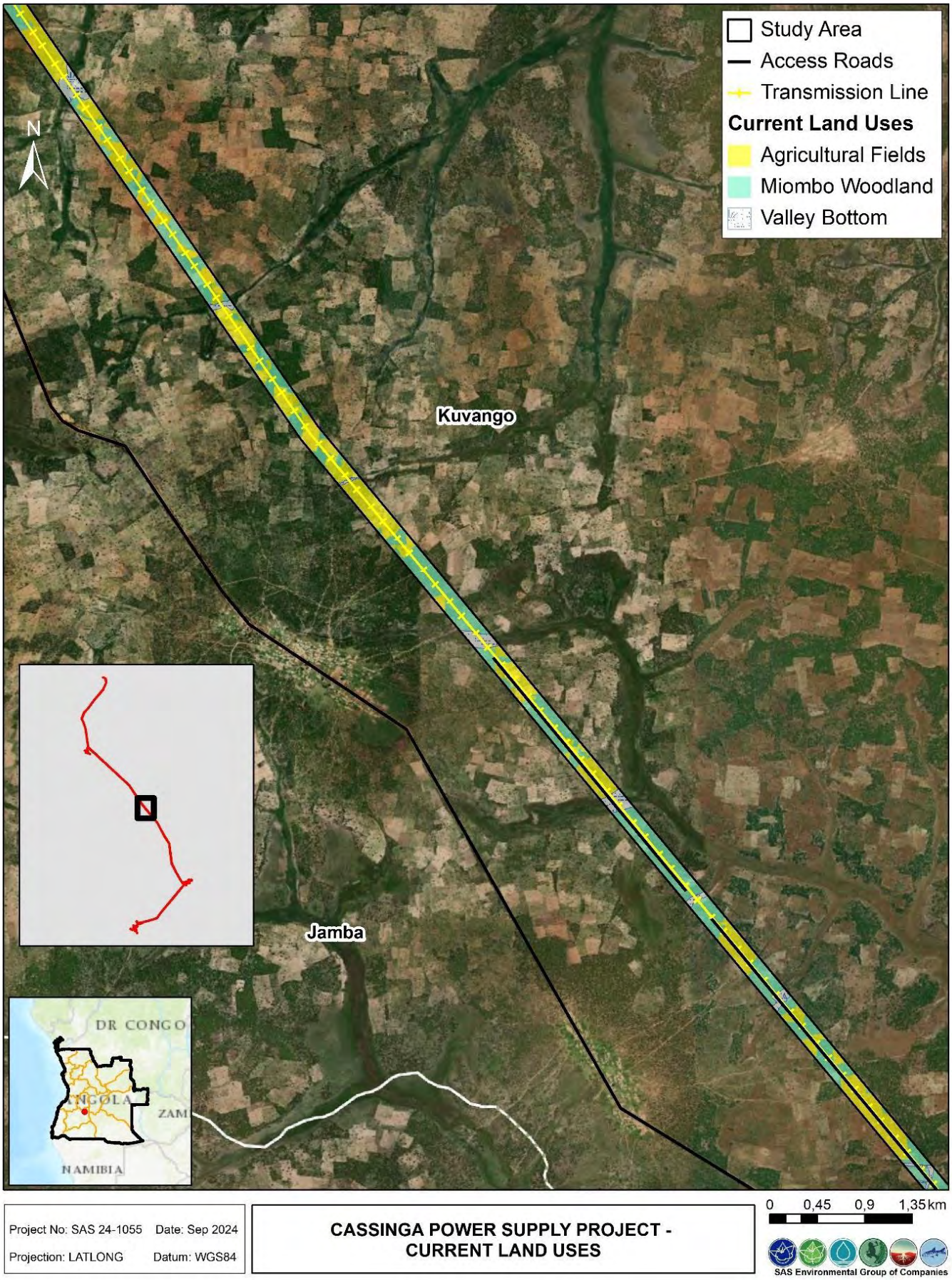
Land uses associated with the study area



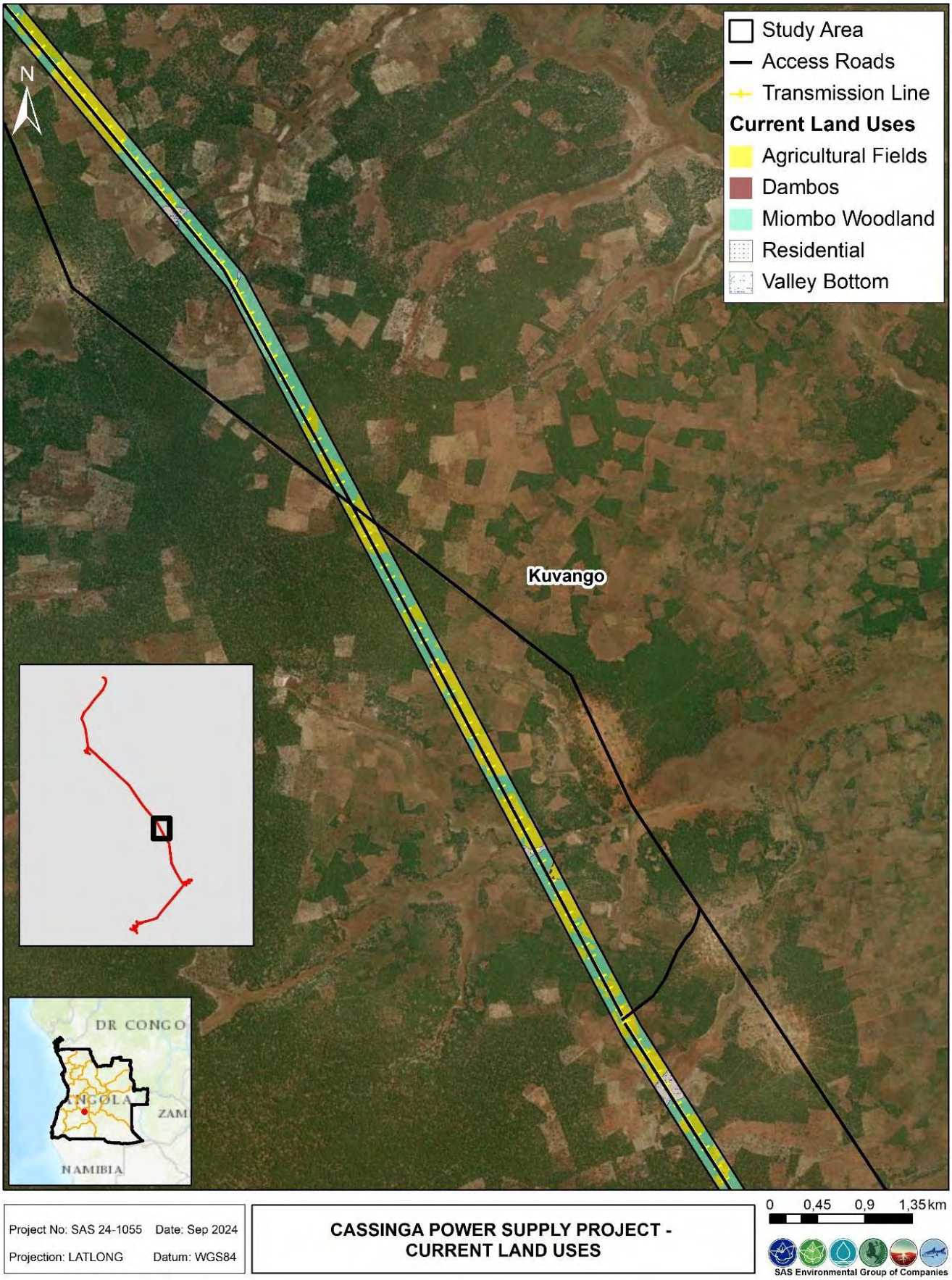
Land uses associated with the study area



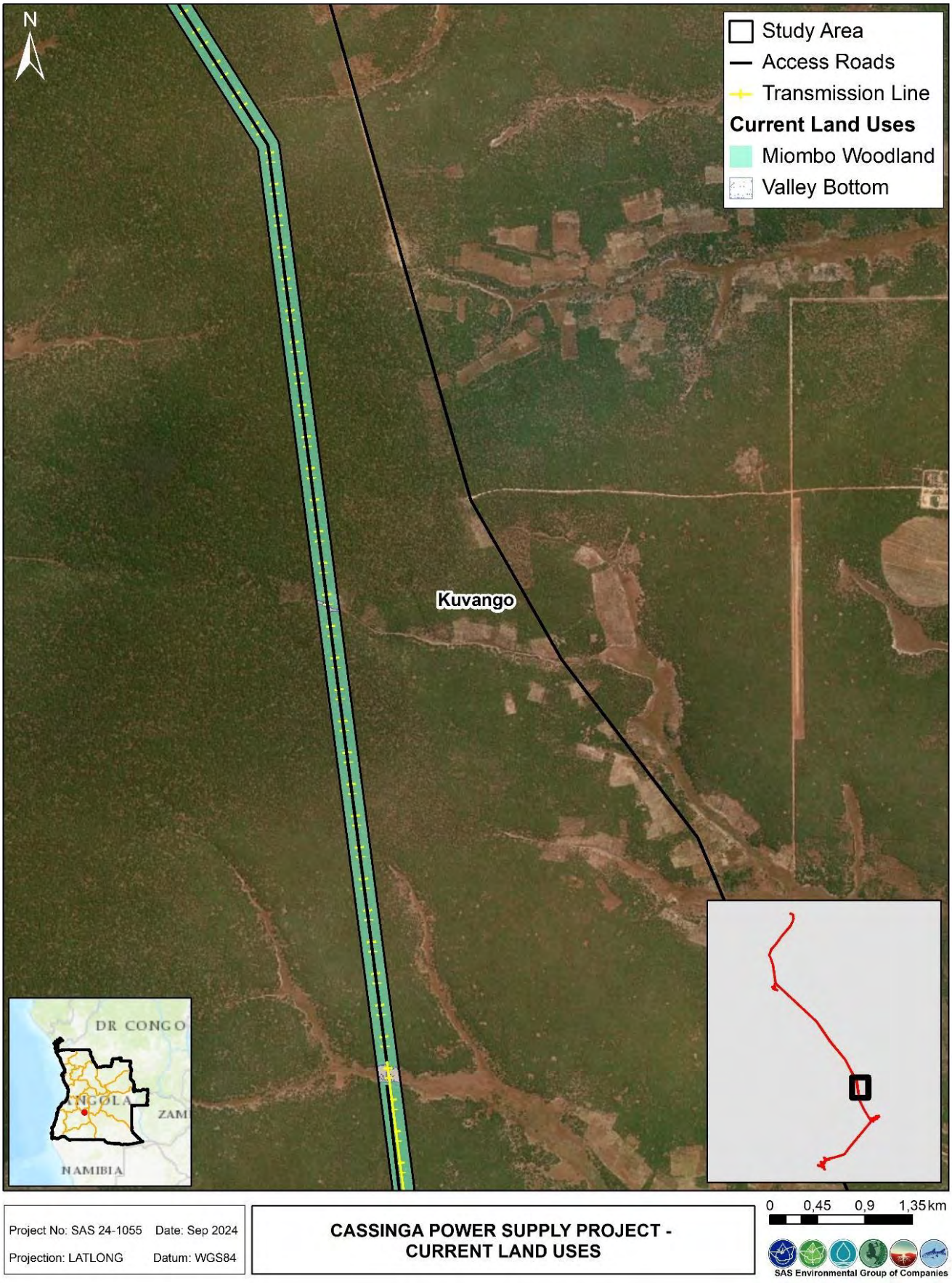
Land uses associated with the study area



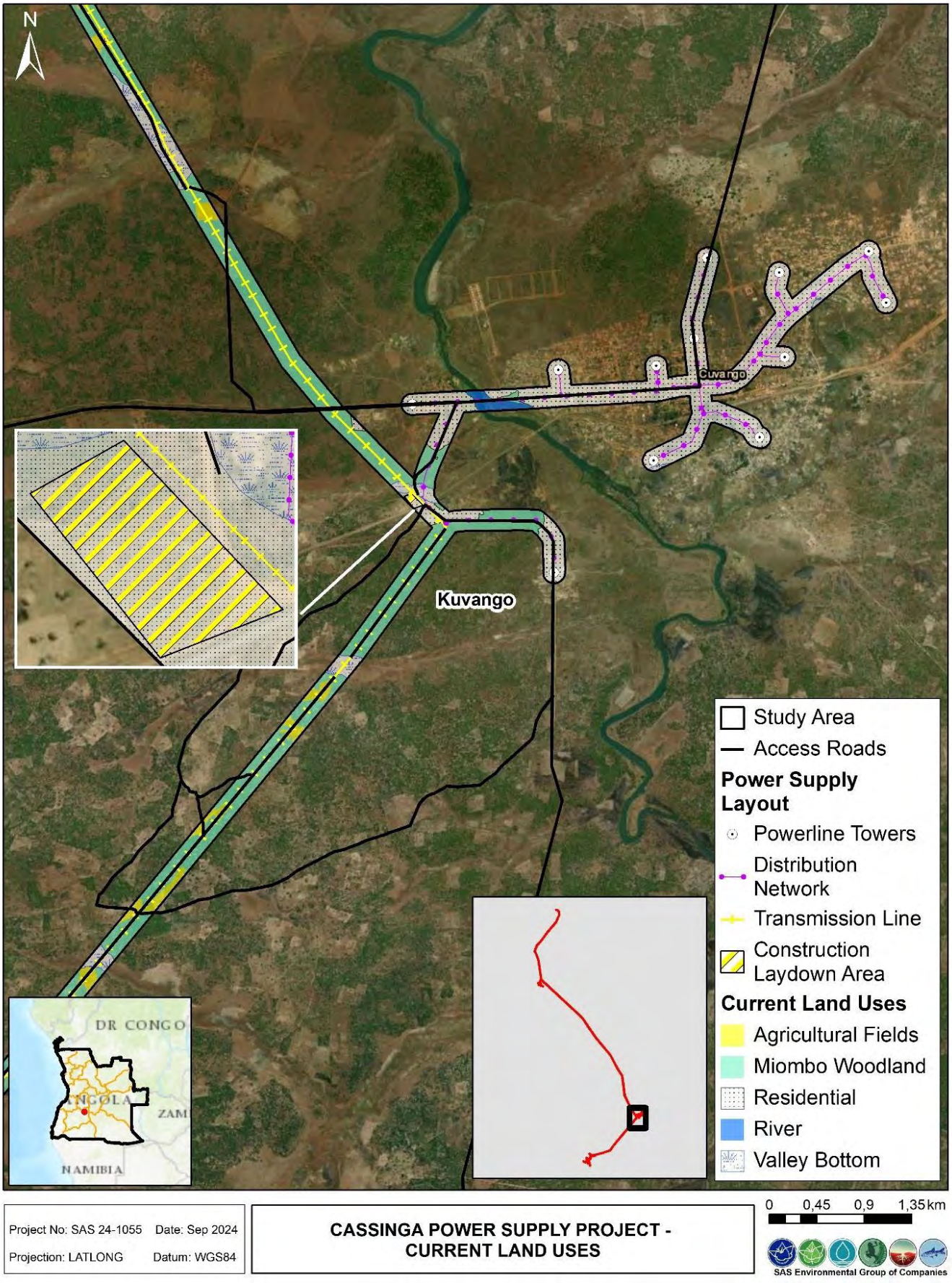
Land uses associated with the study area



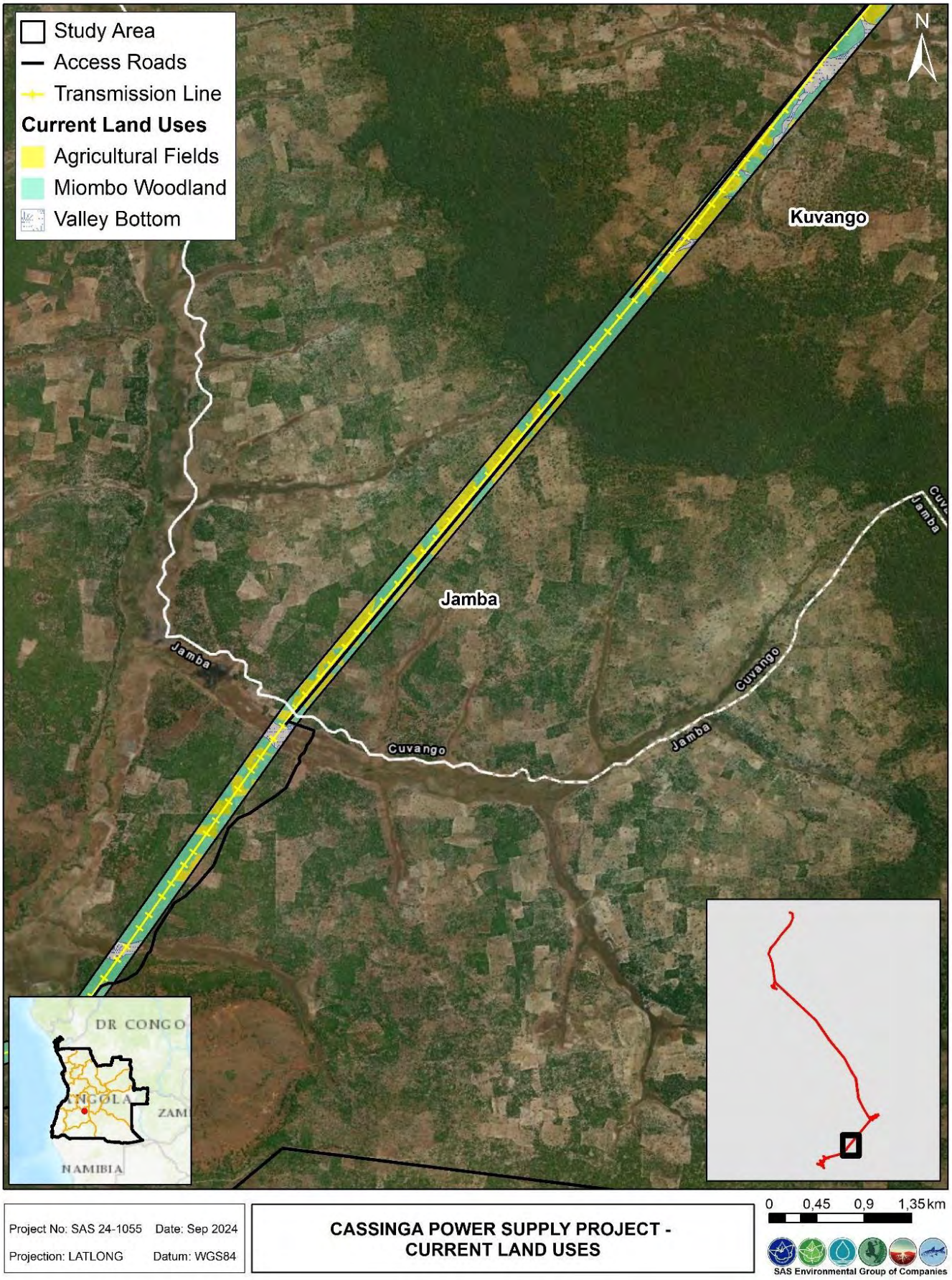
Land uses associated with the study area



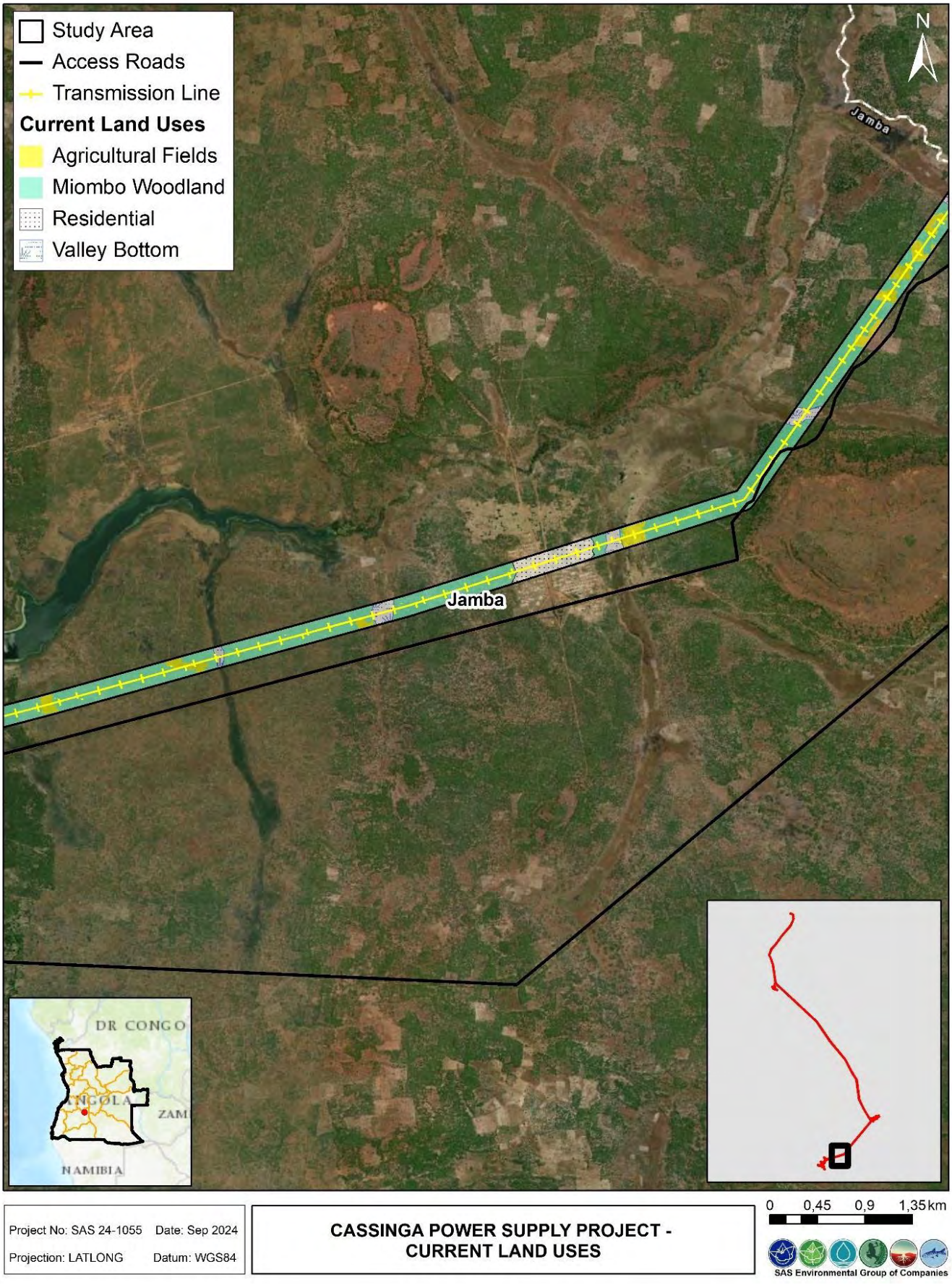
Land uses associated with the study area



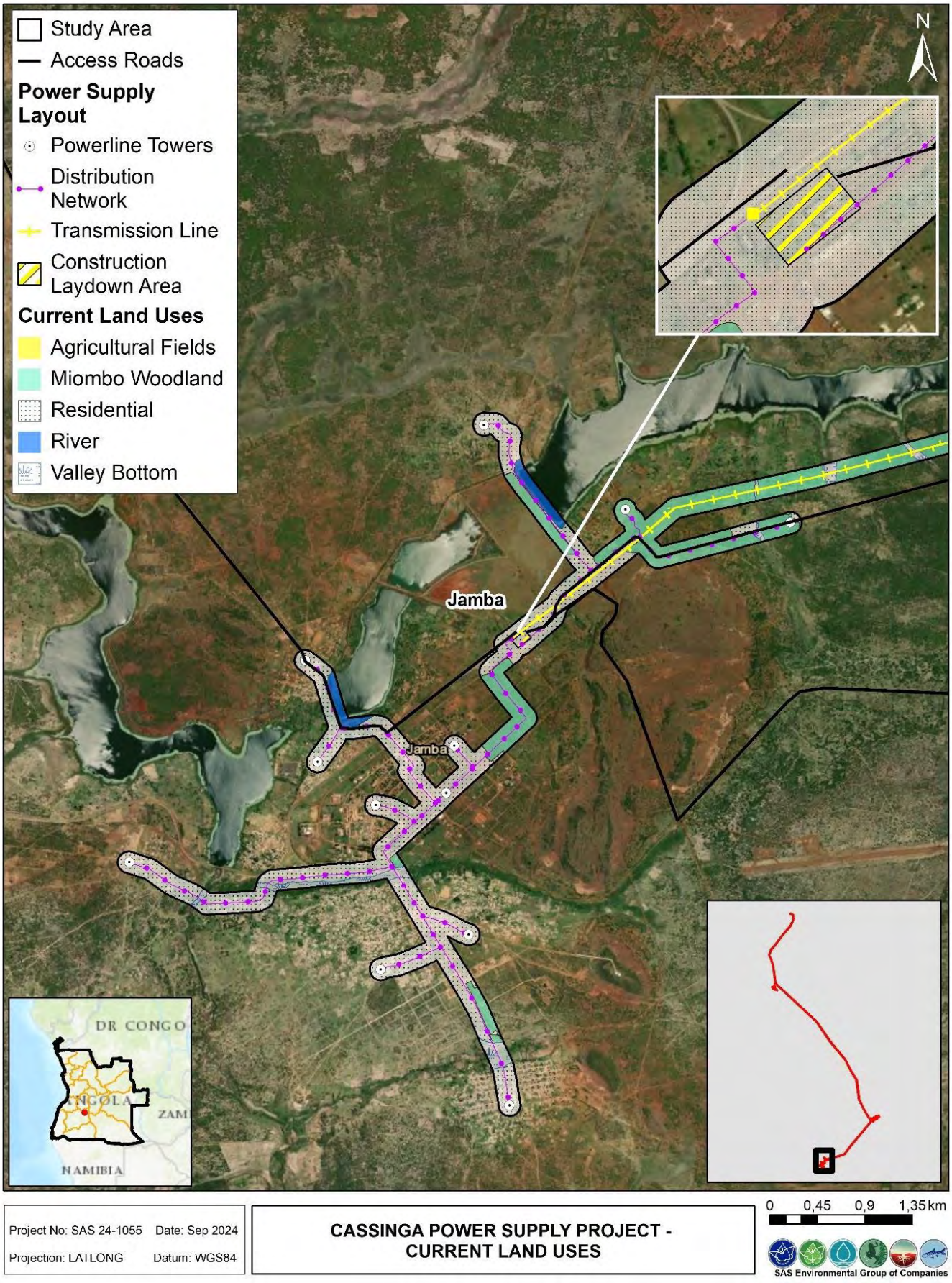
Land uses associated with the study area



Land uses associated with the study area

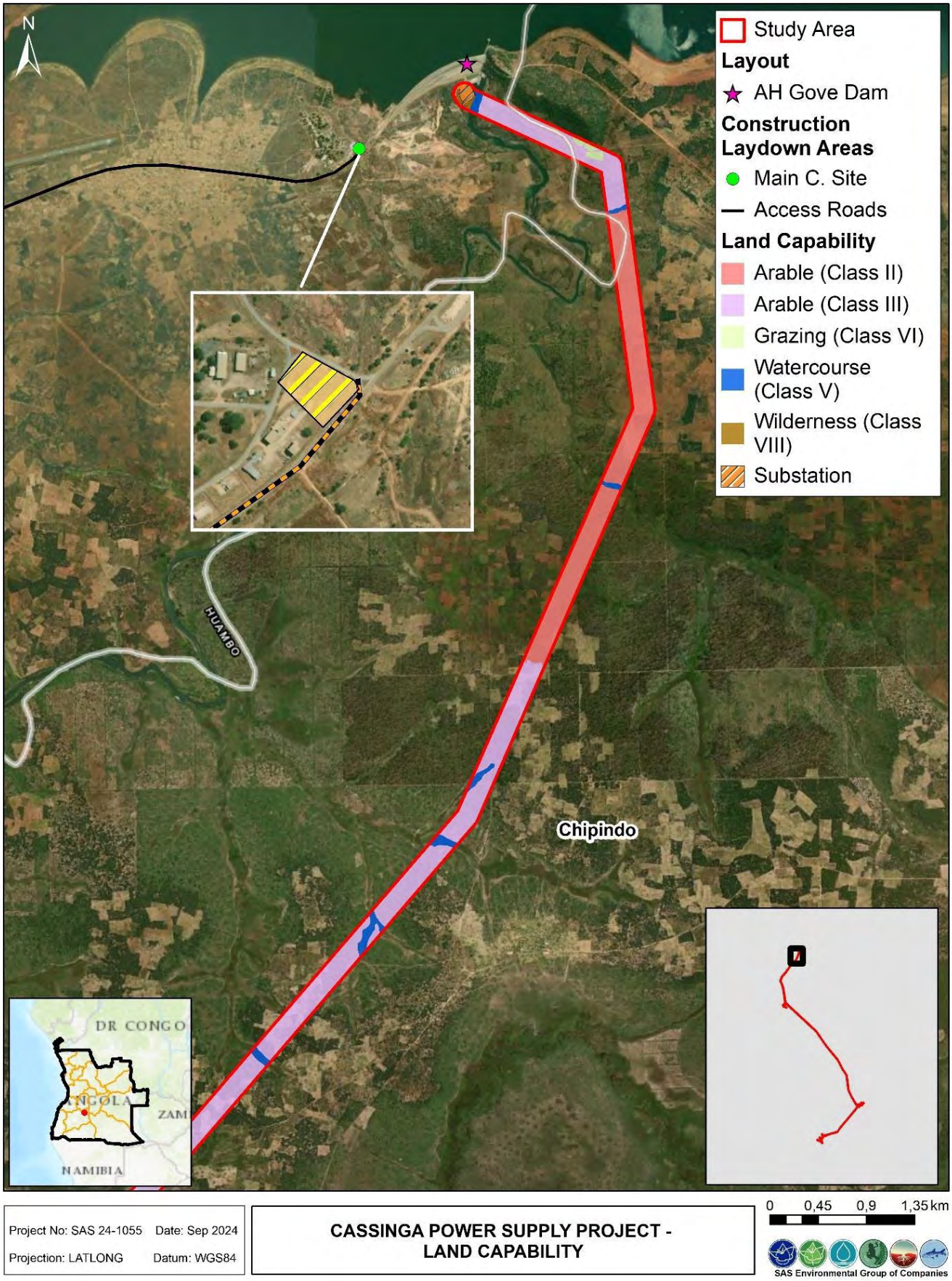


Land uses associated with the study area

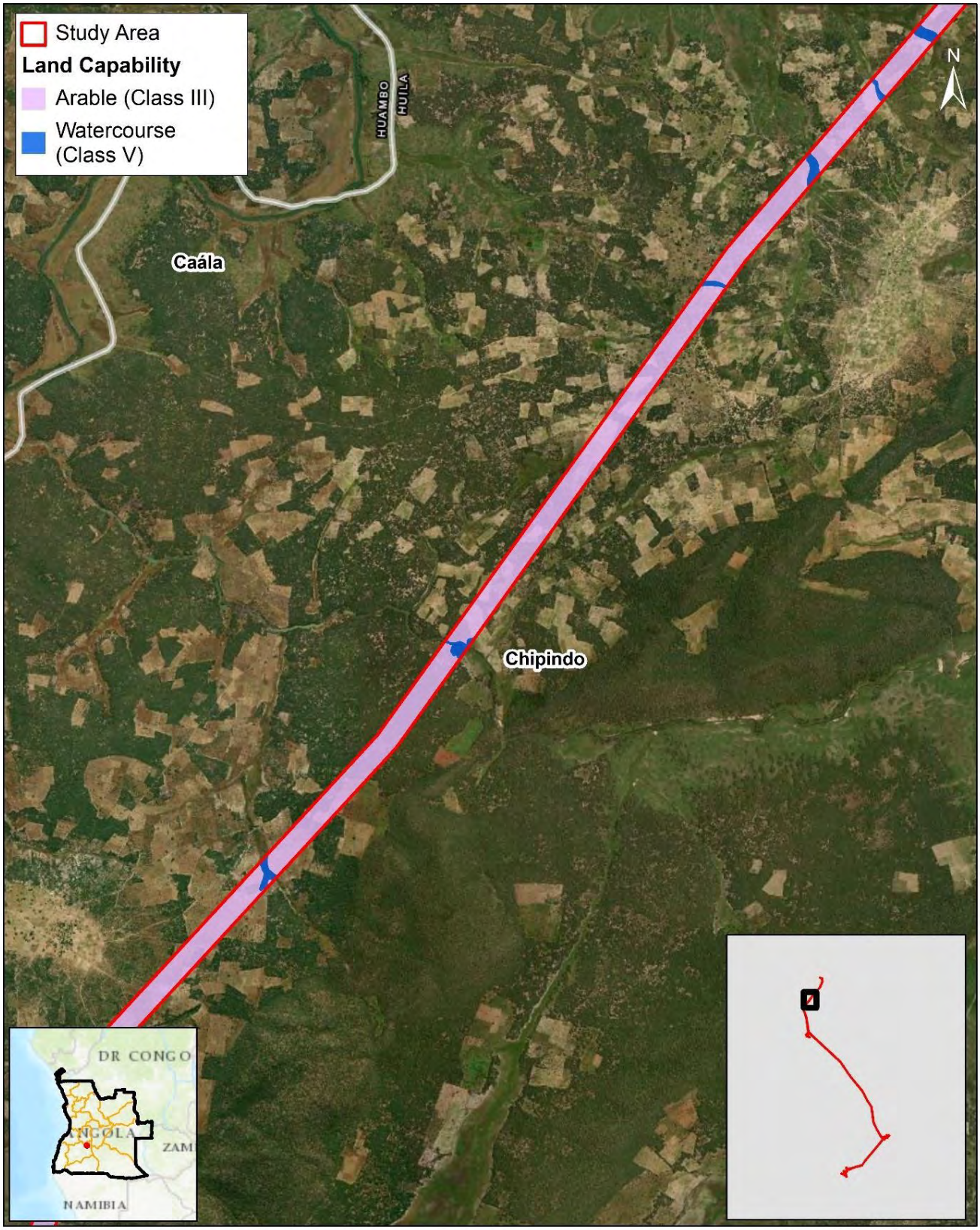


Land uses associated with the study area

Appendix C3: Land potential in study area



Land capability associated with the soils in the study area

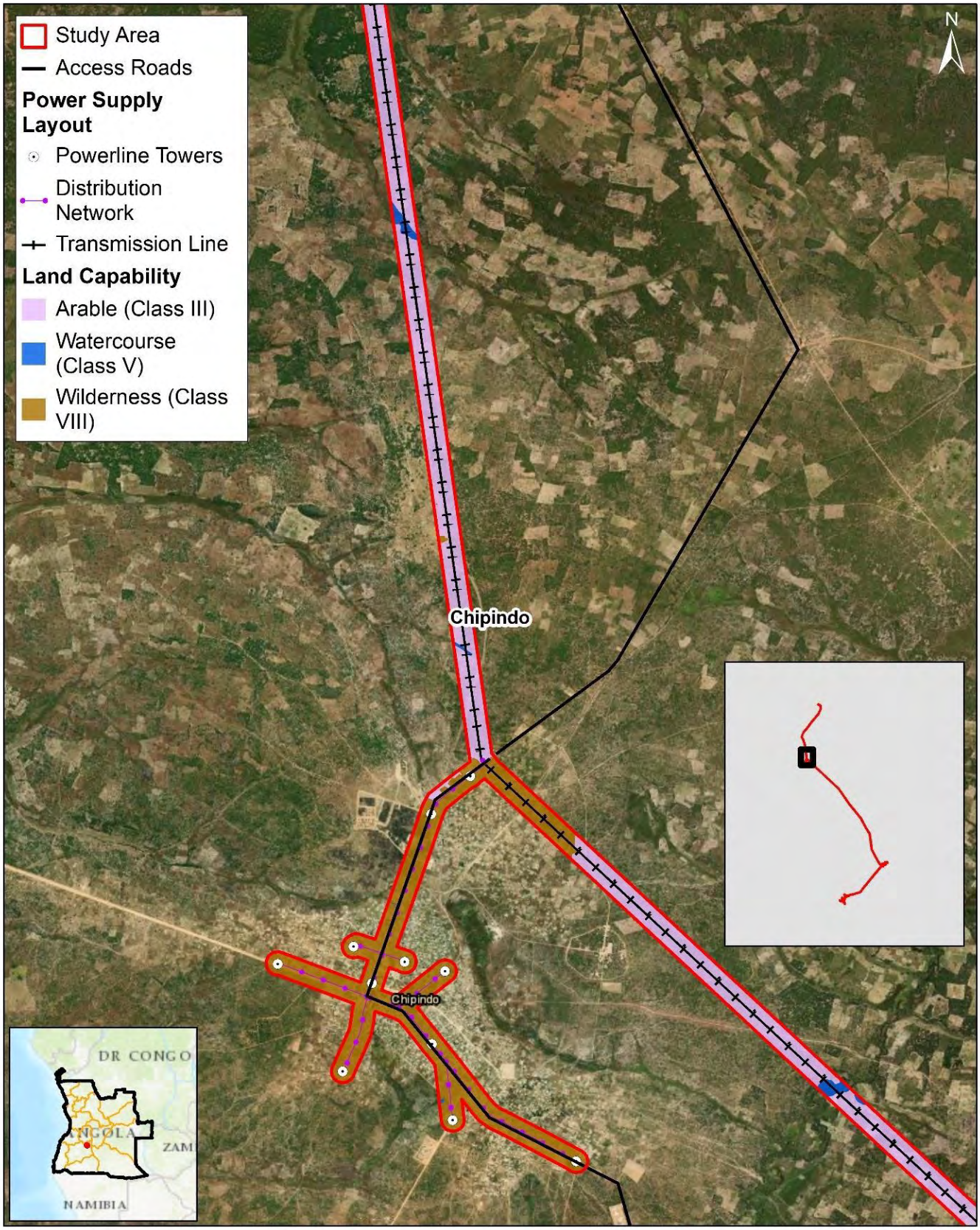


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



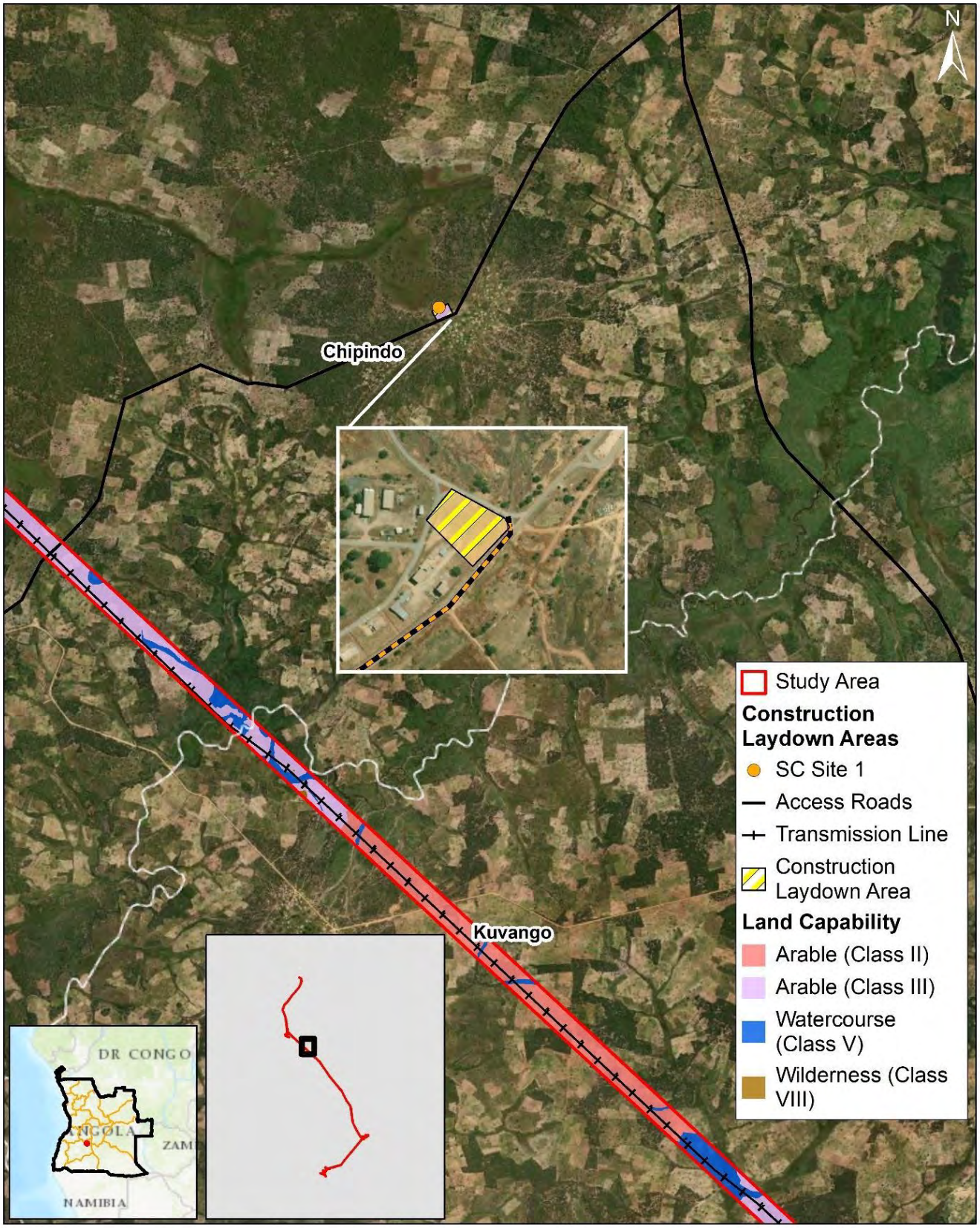
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



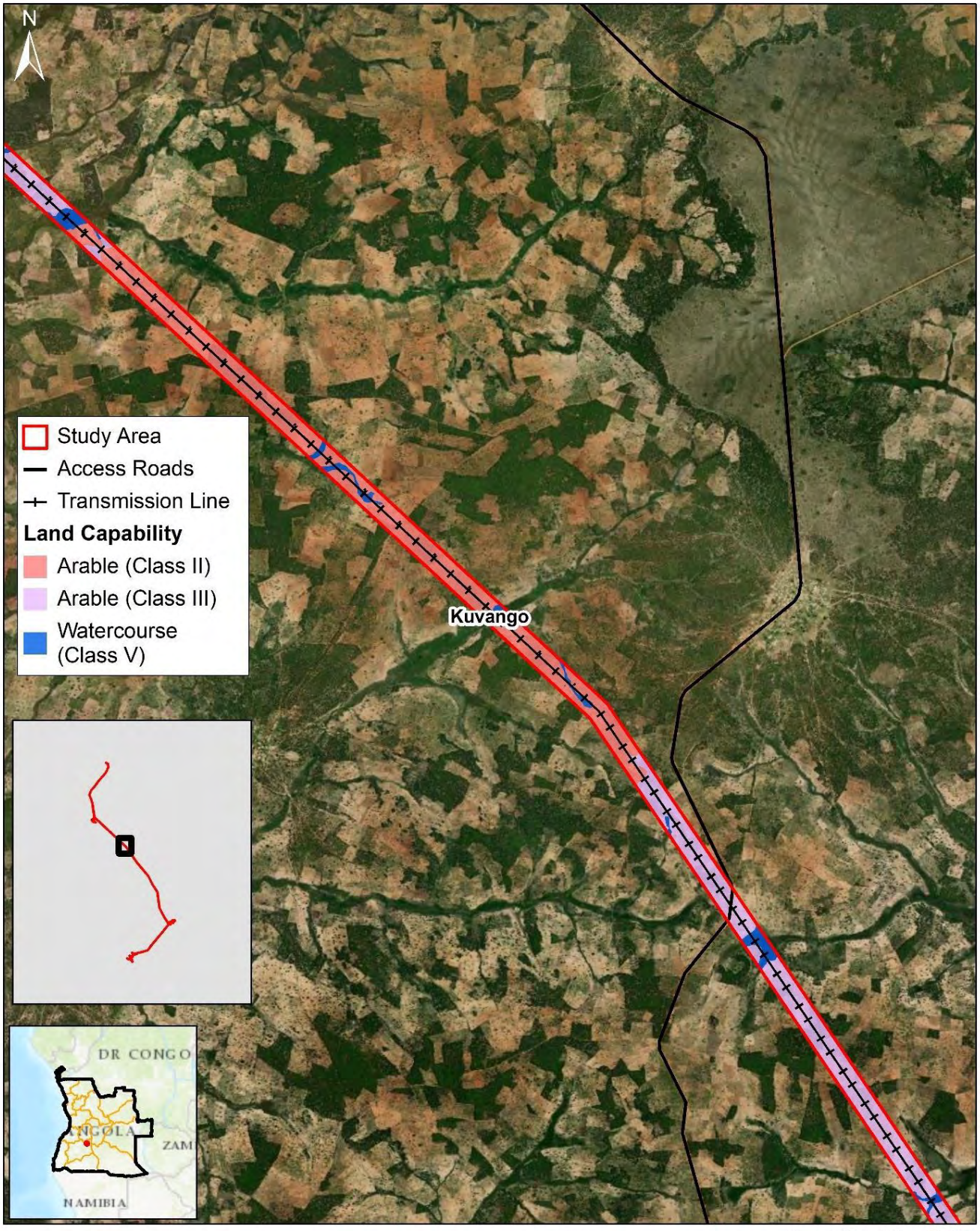
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

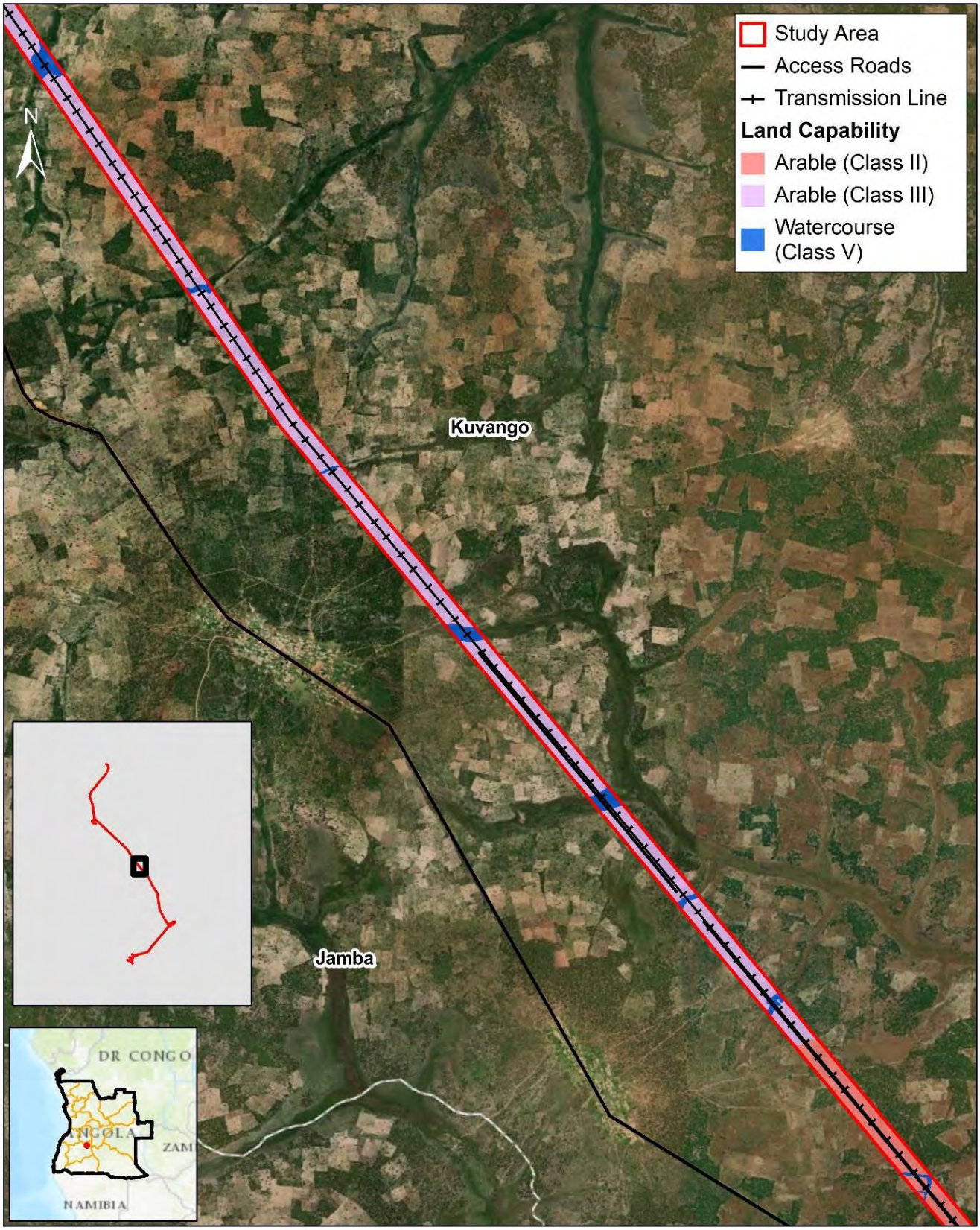


Project No: SAS 24-1055 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



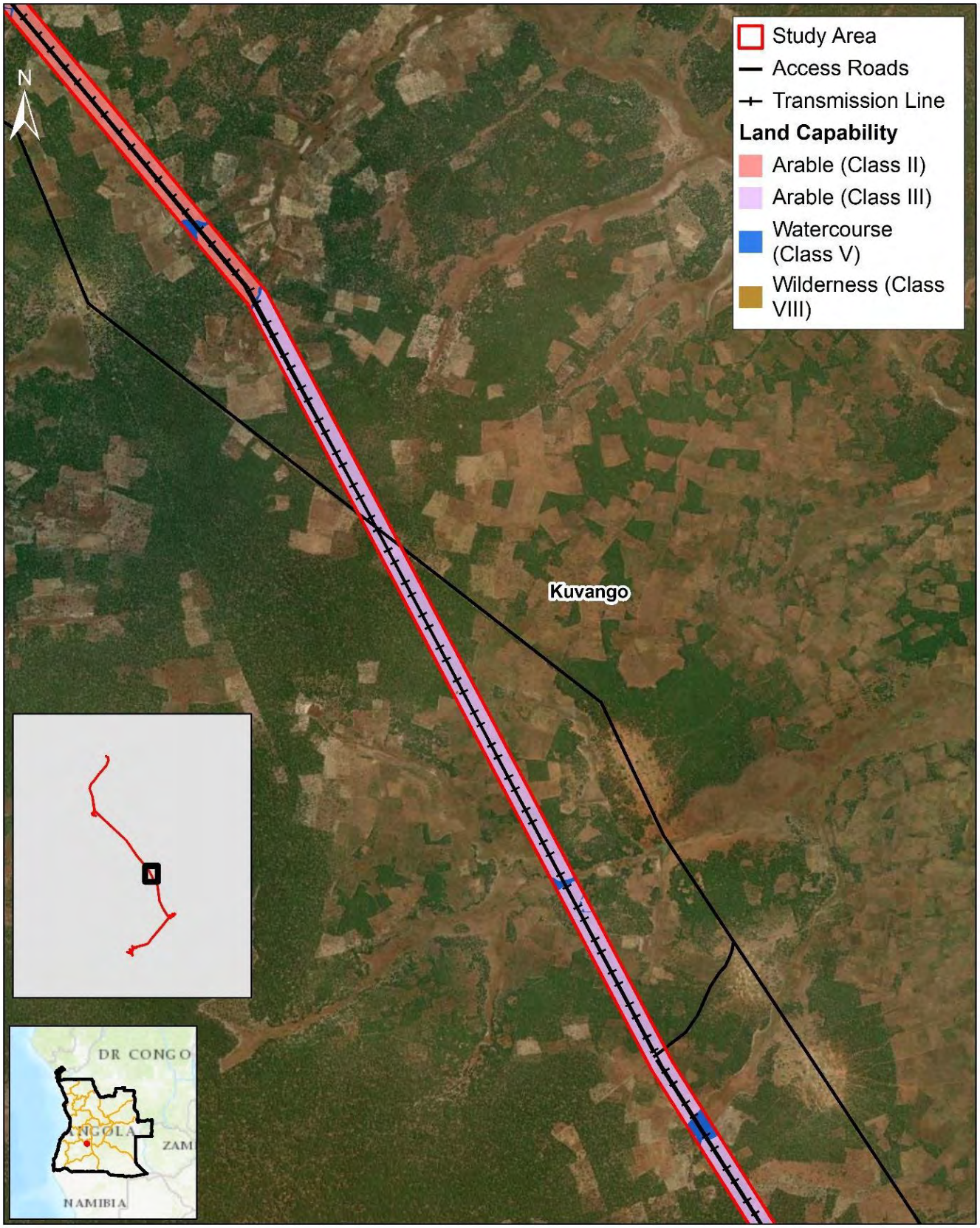
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



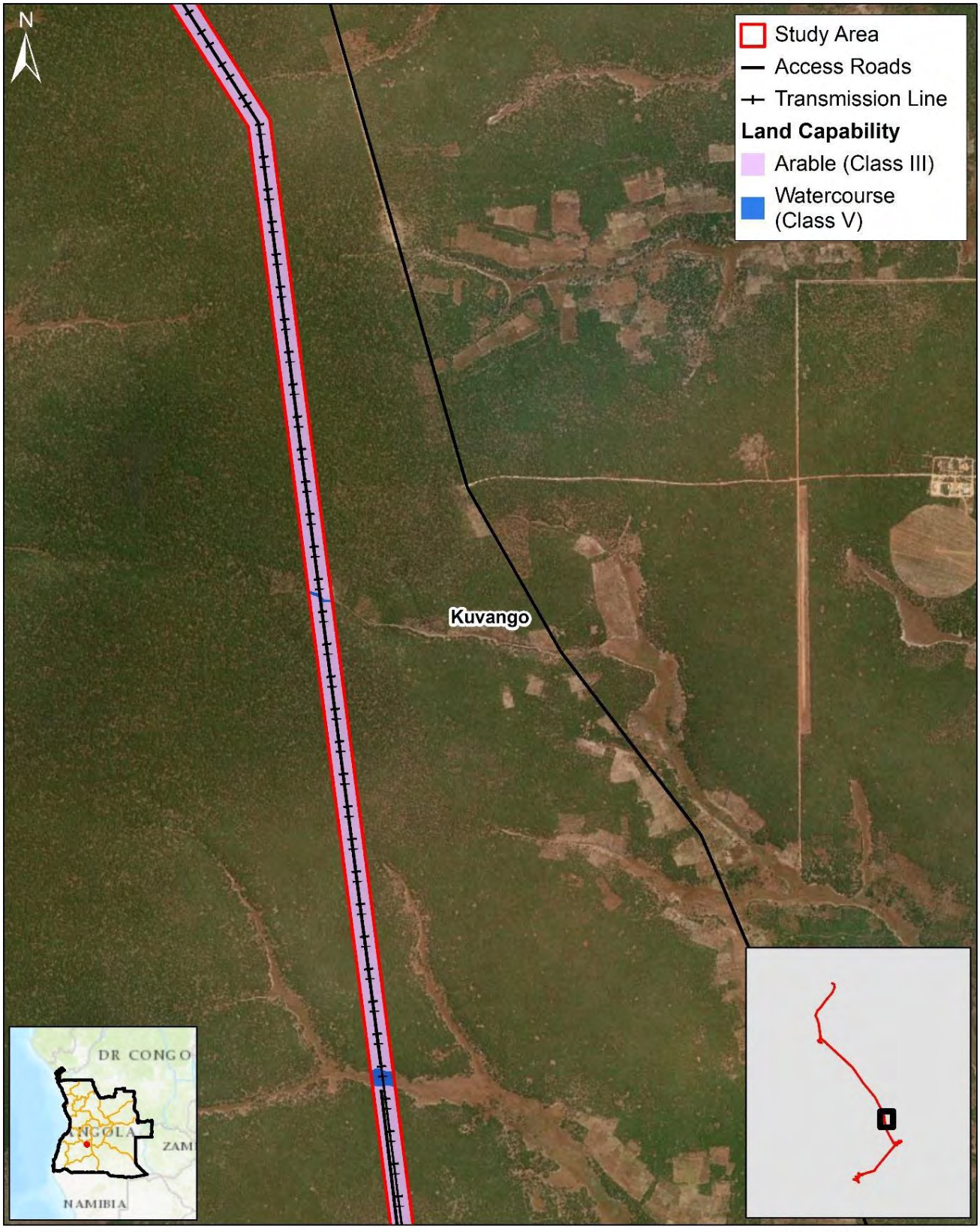
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

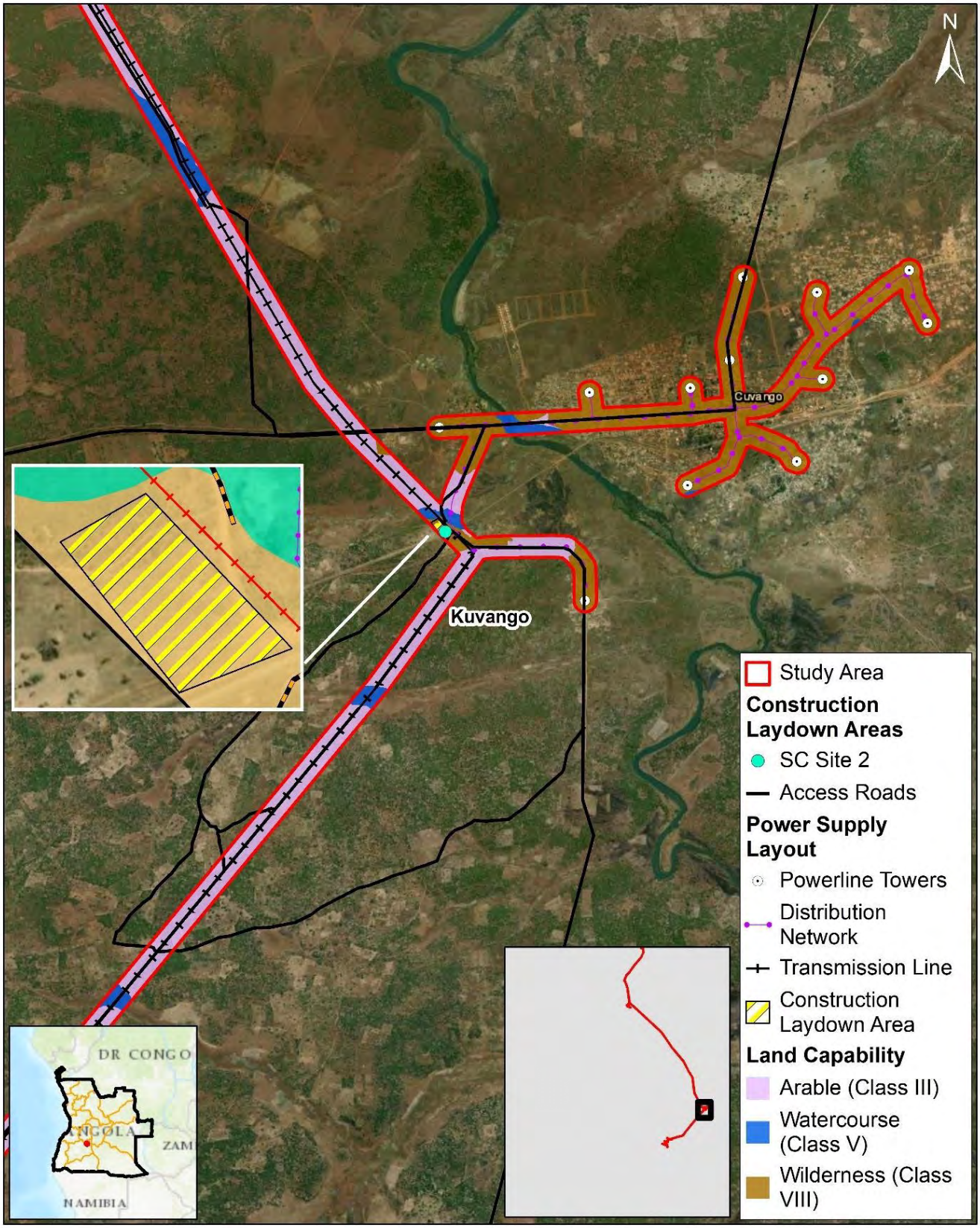


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



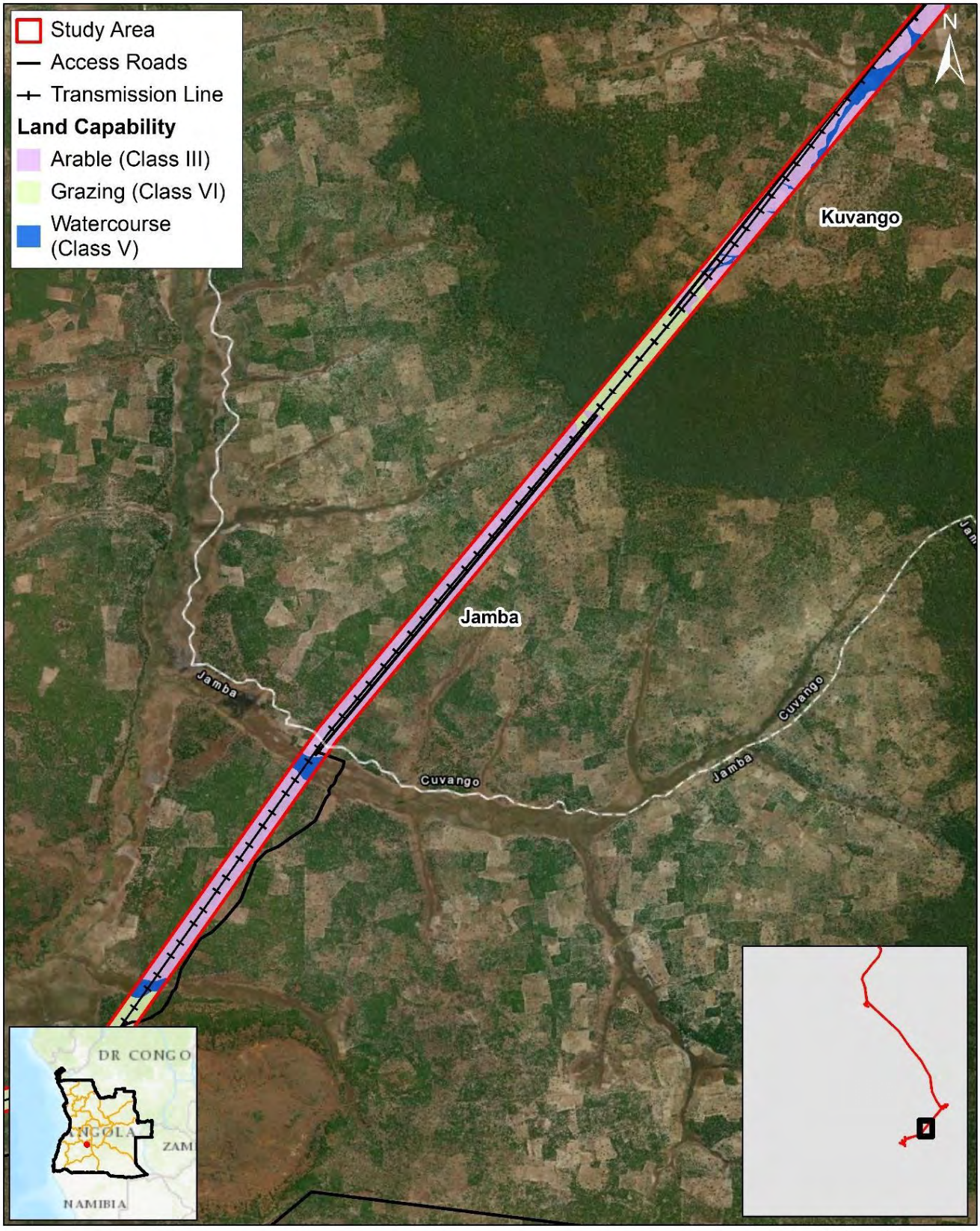
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

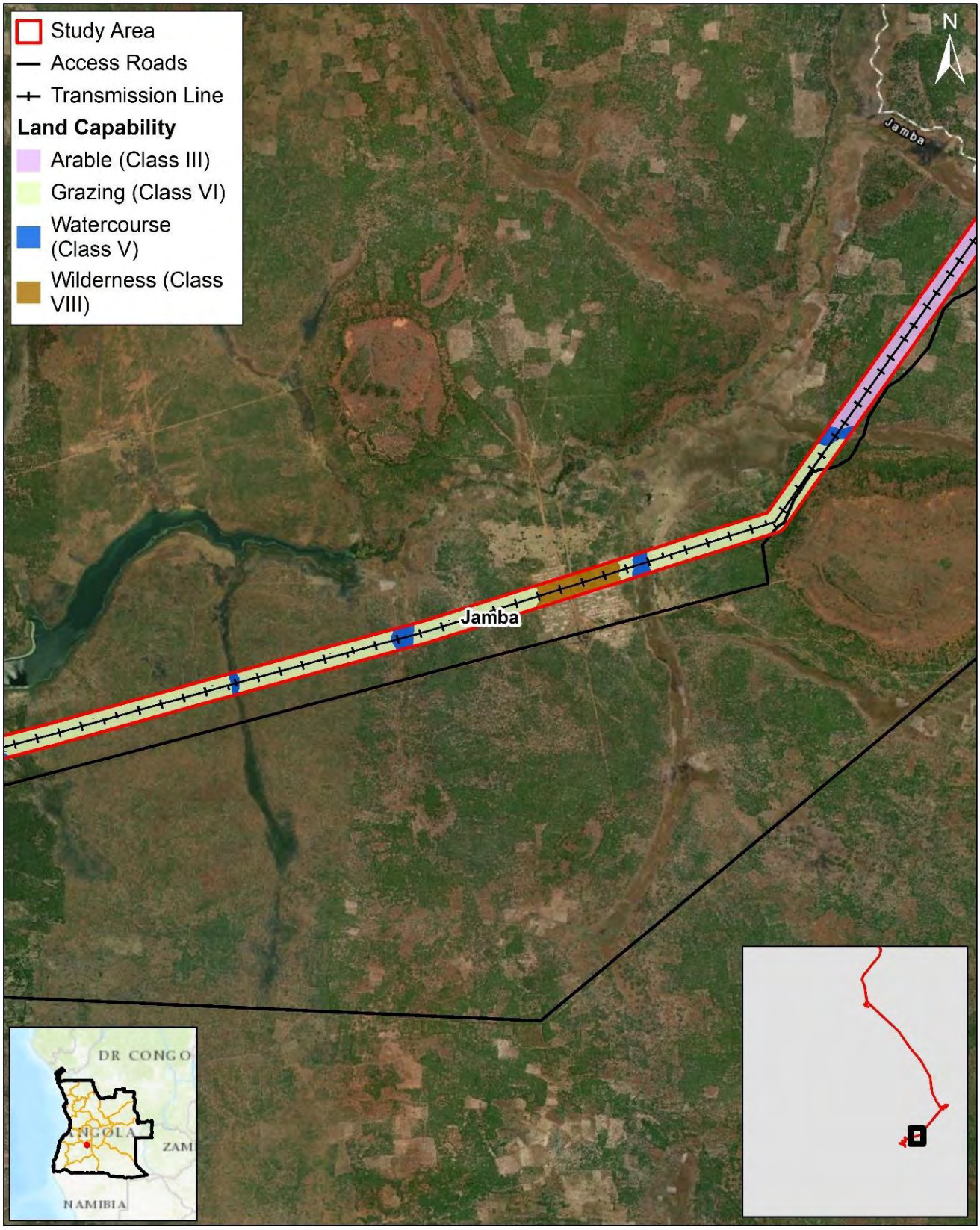


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

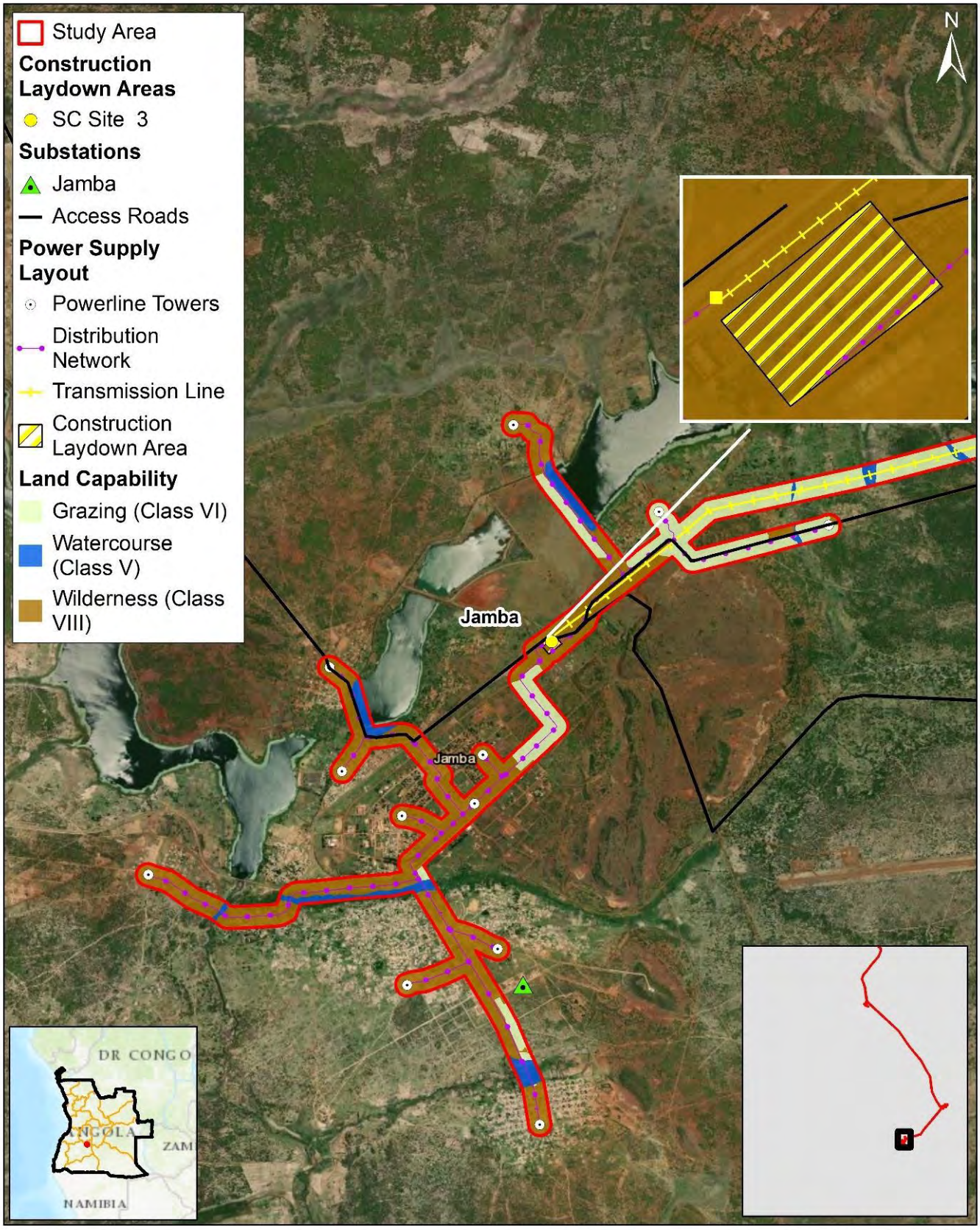


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



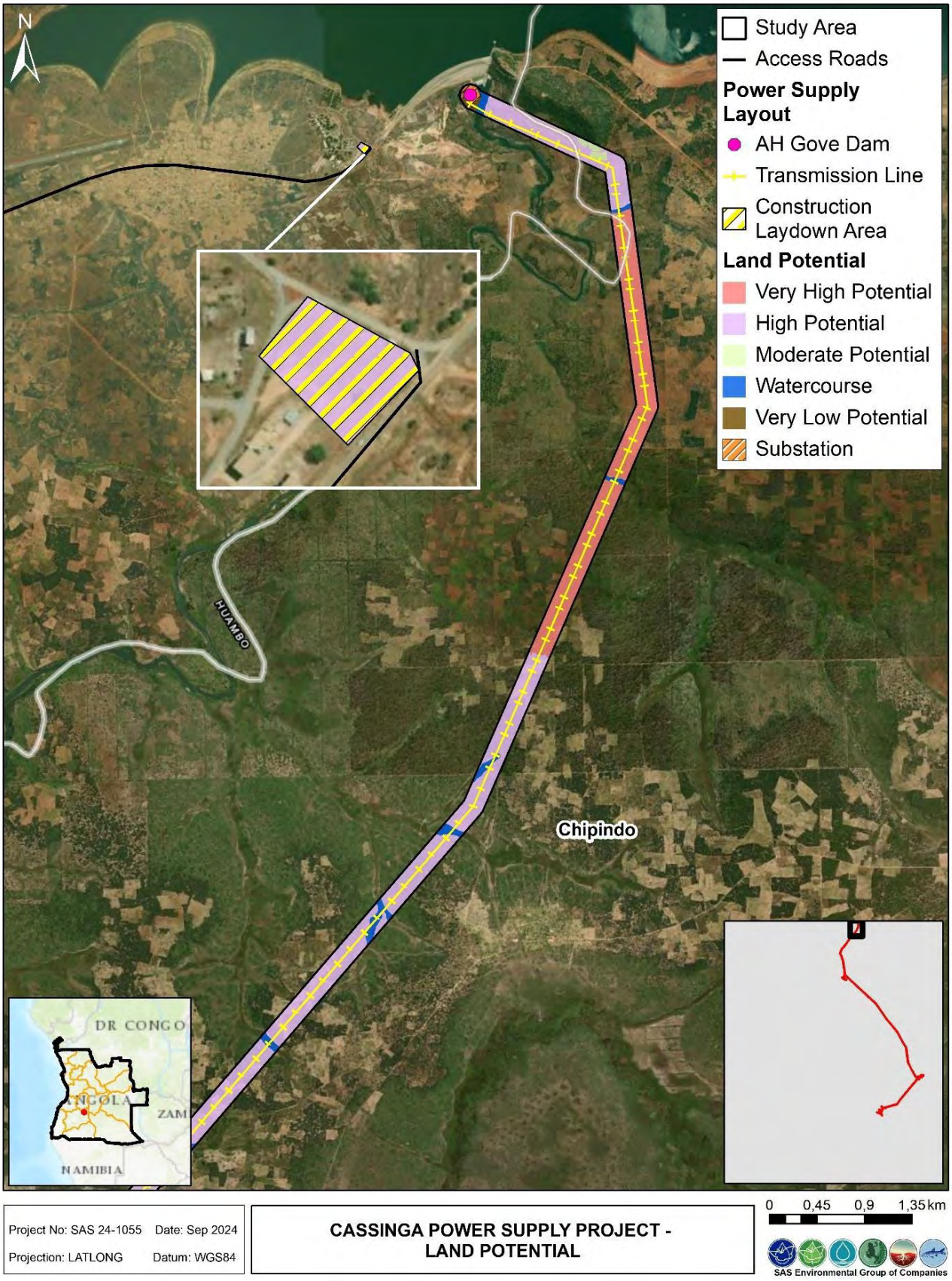
0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND CAPABILITY



Land Potential associated with soils within the study area

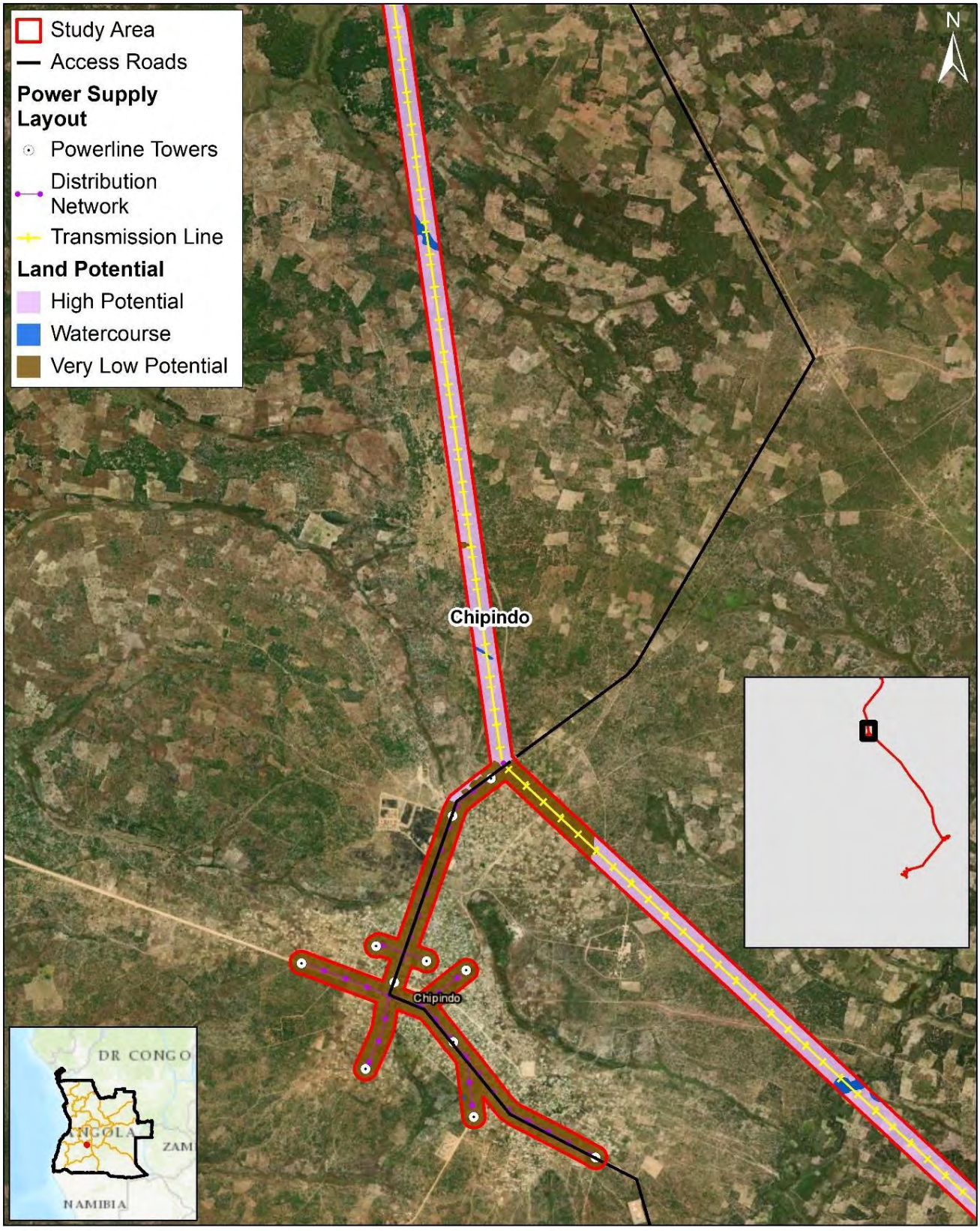
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



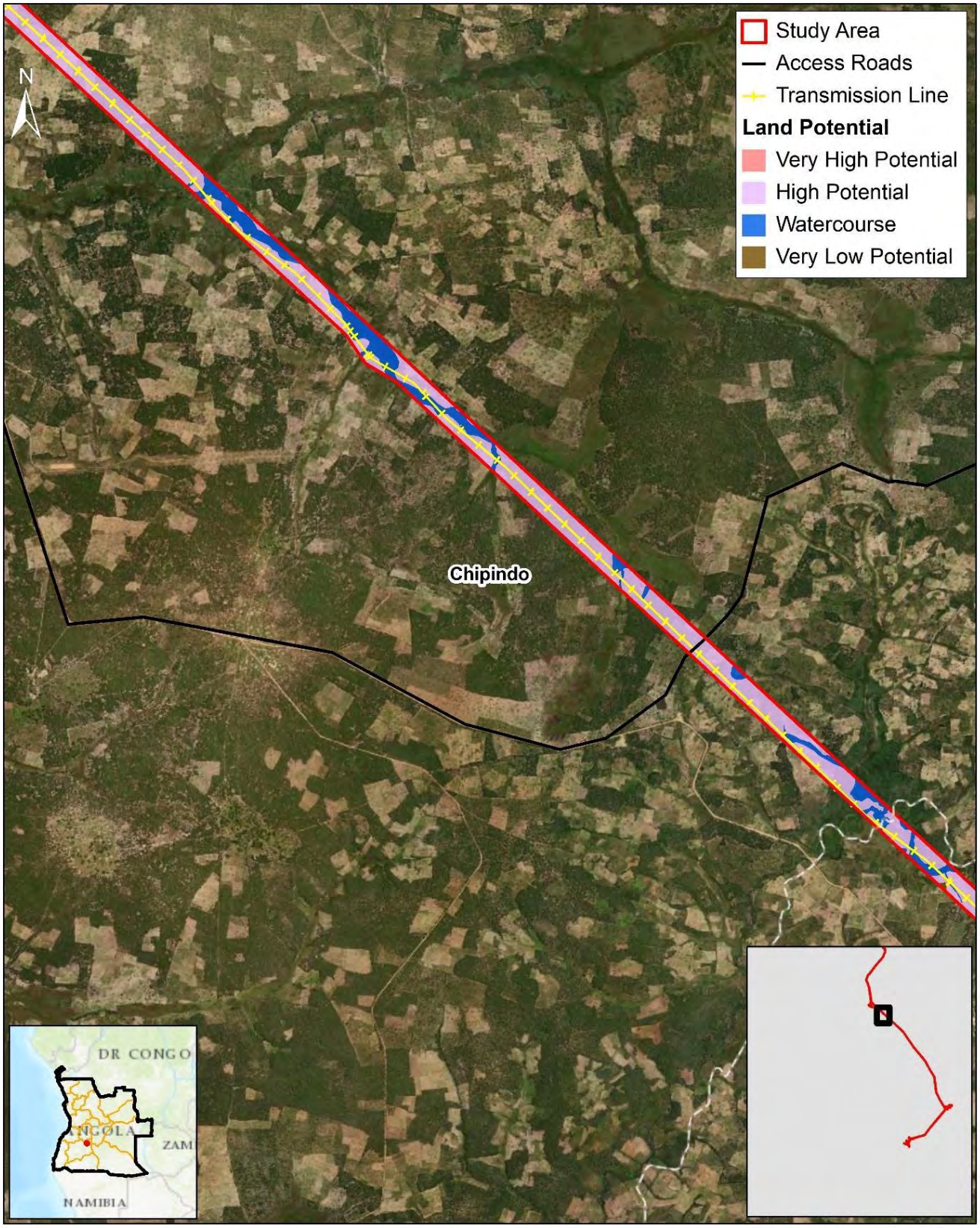
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

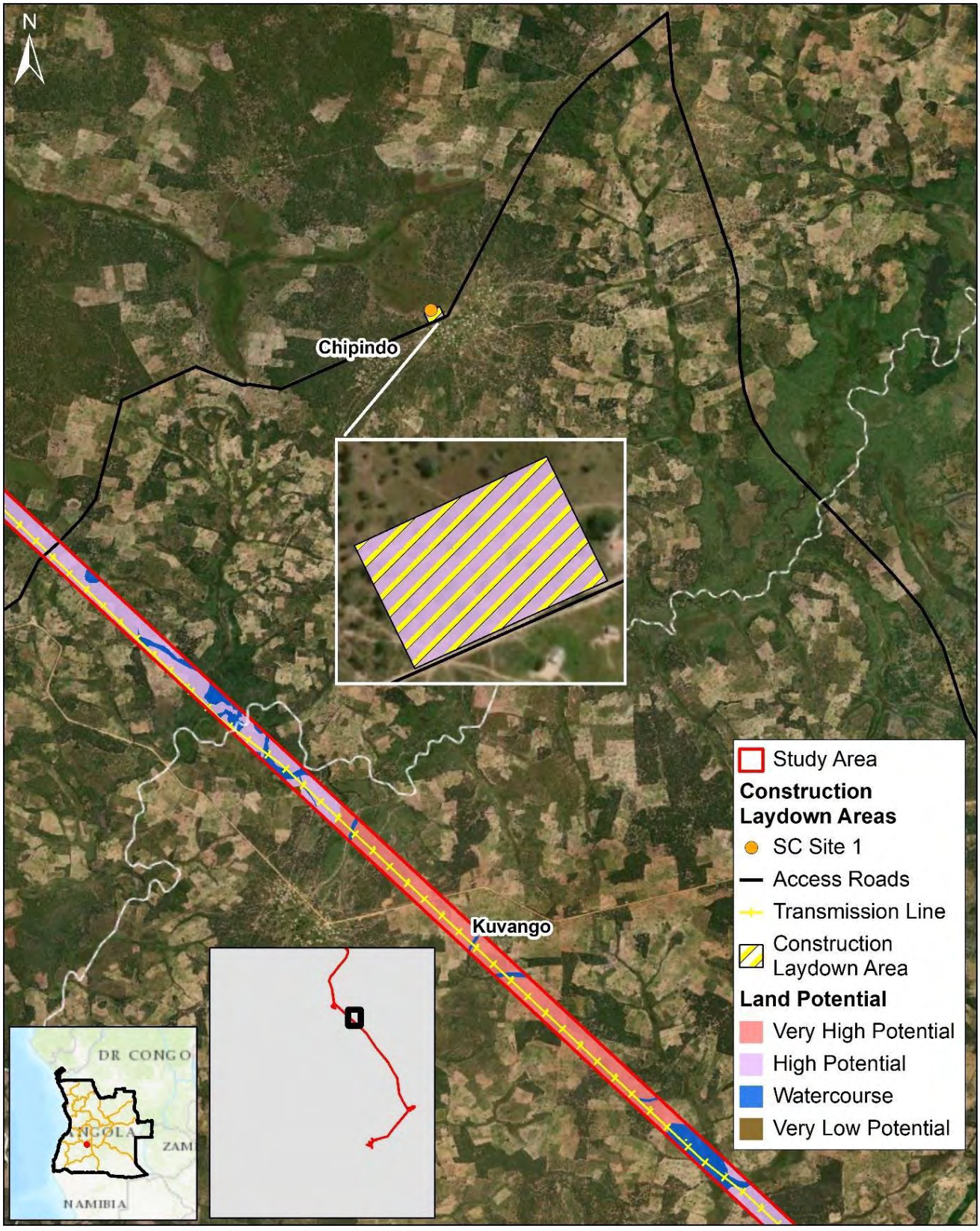


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



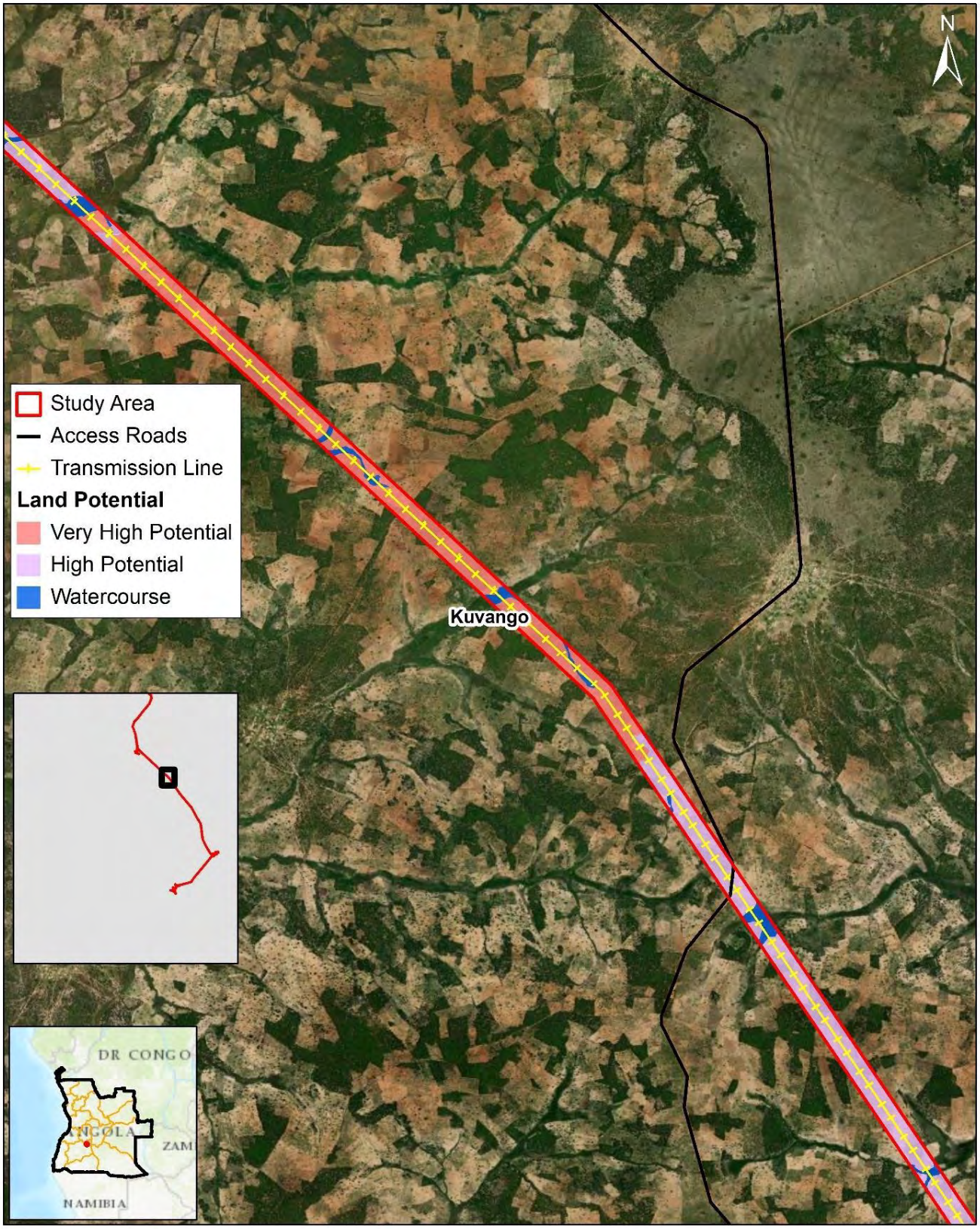
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

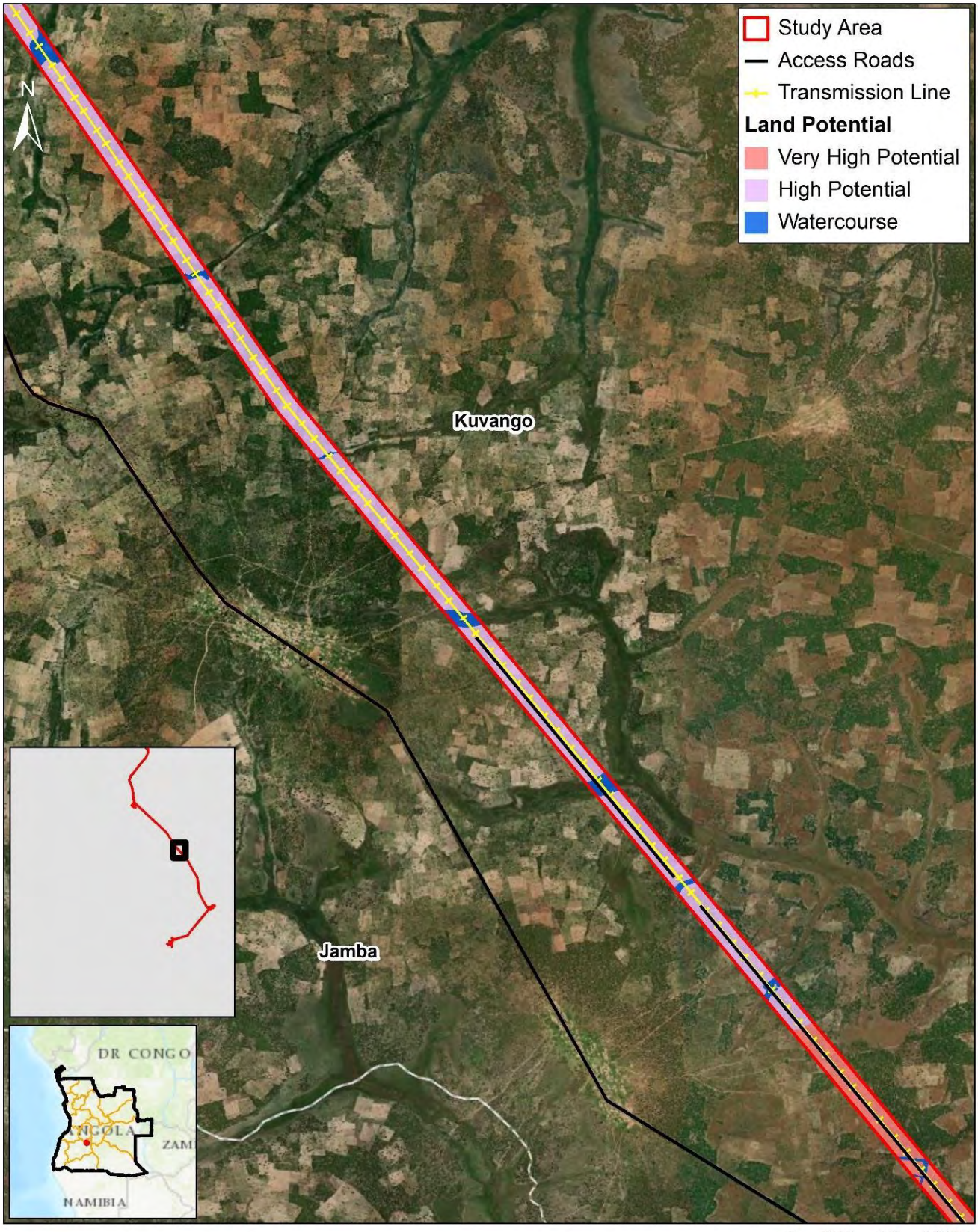


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

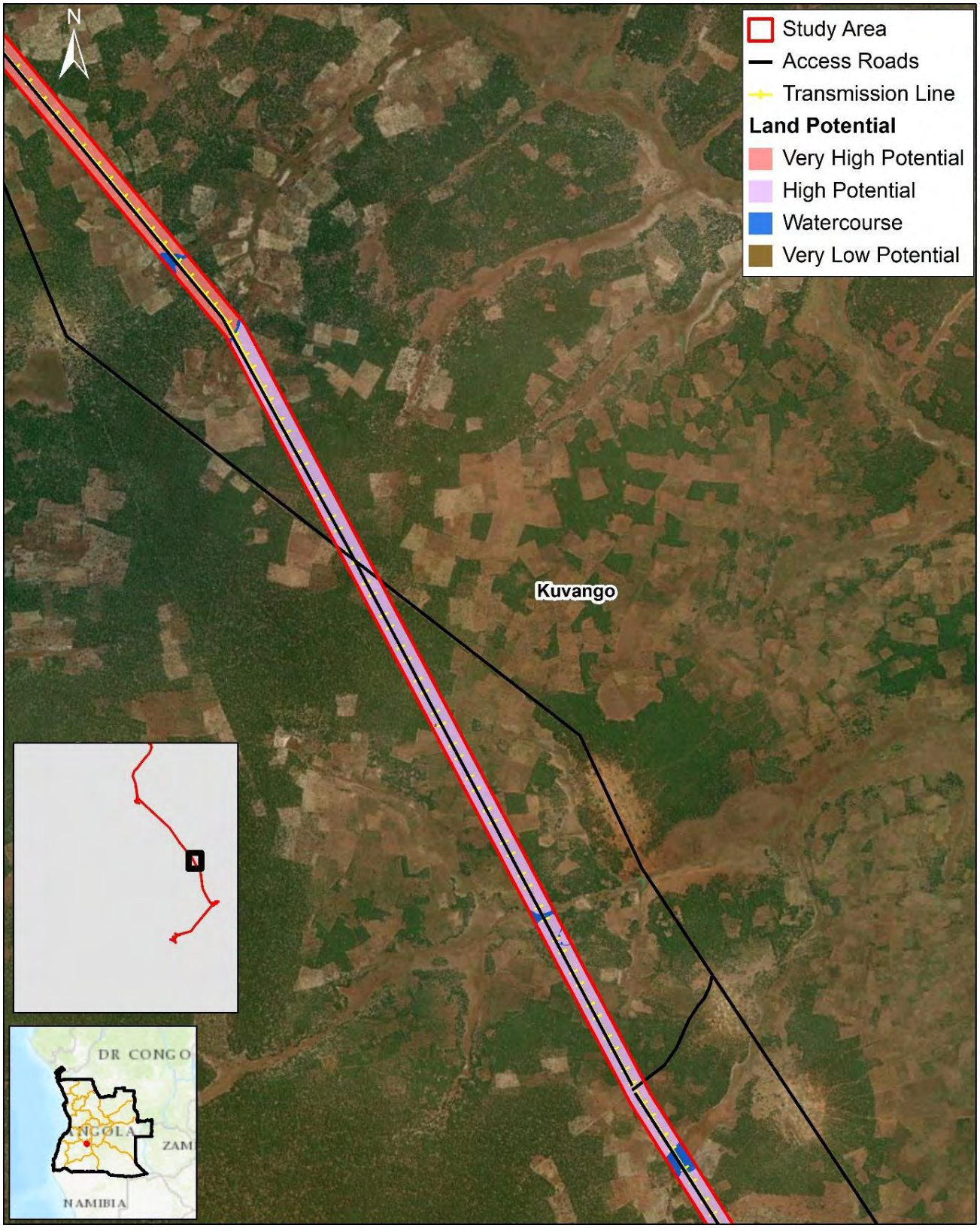


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

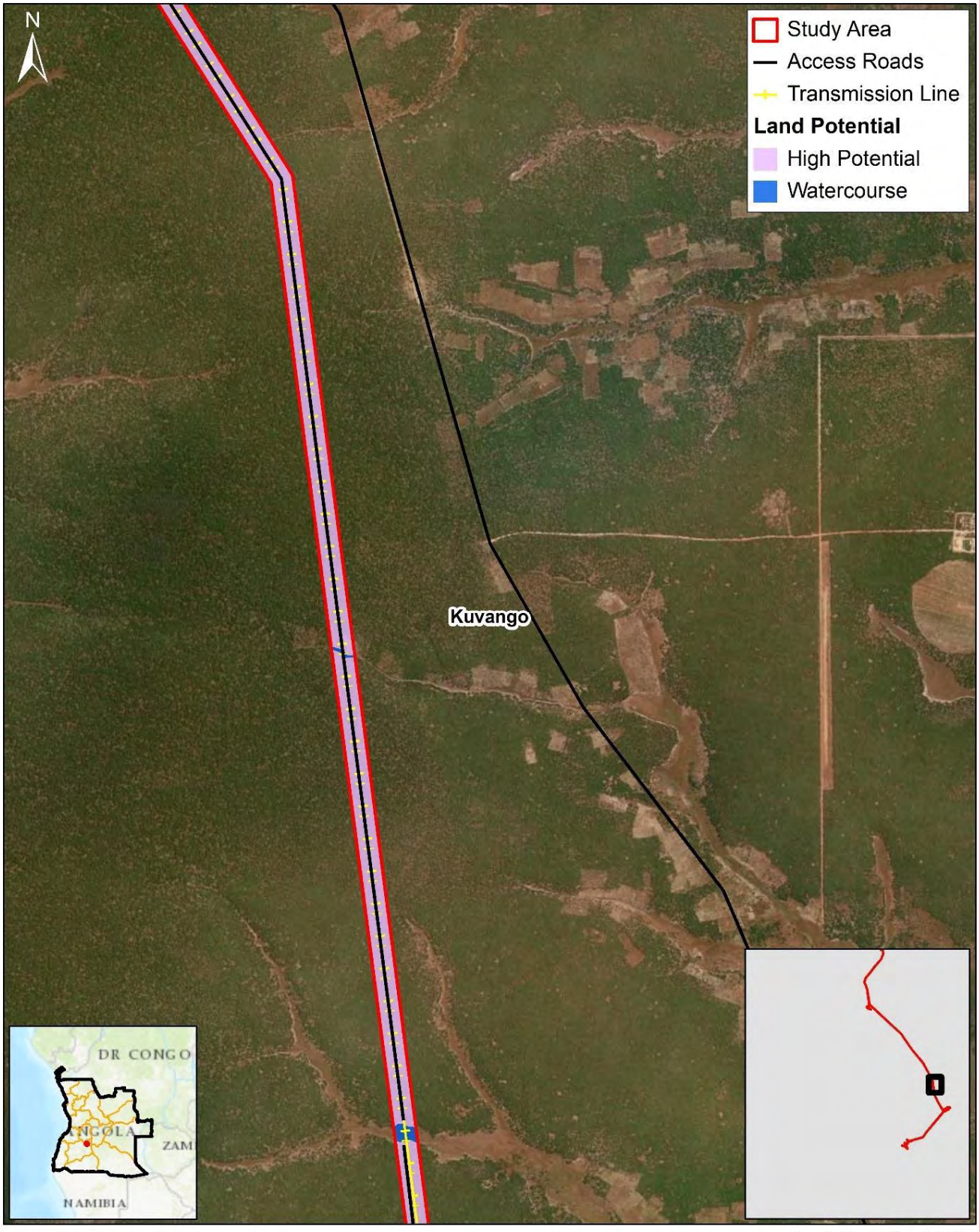


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



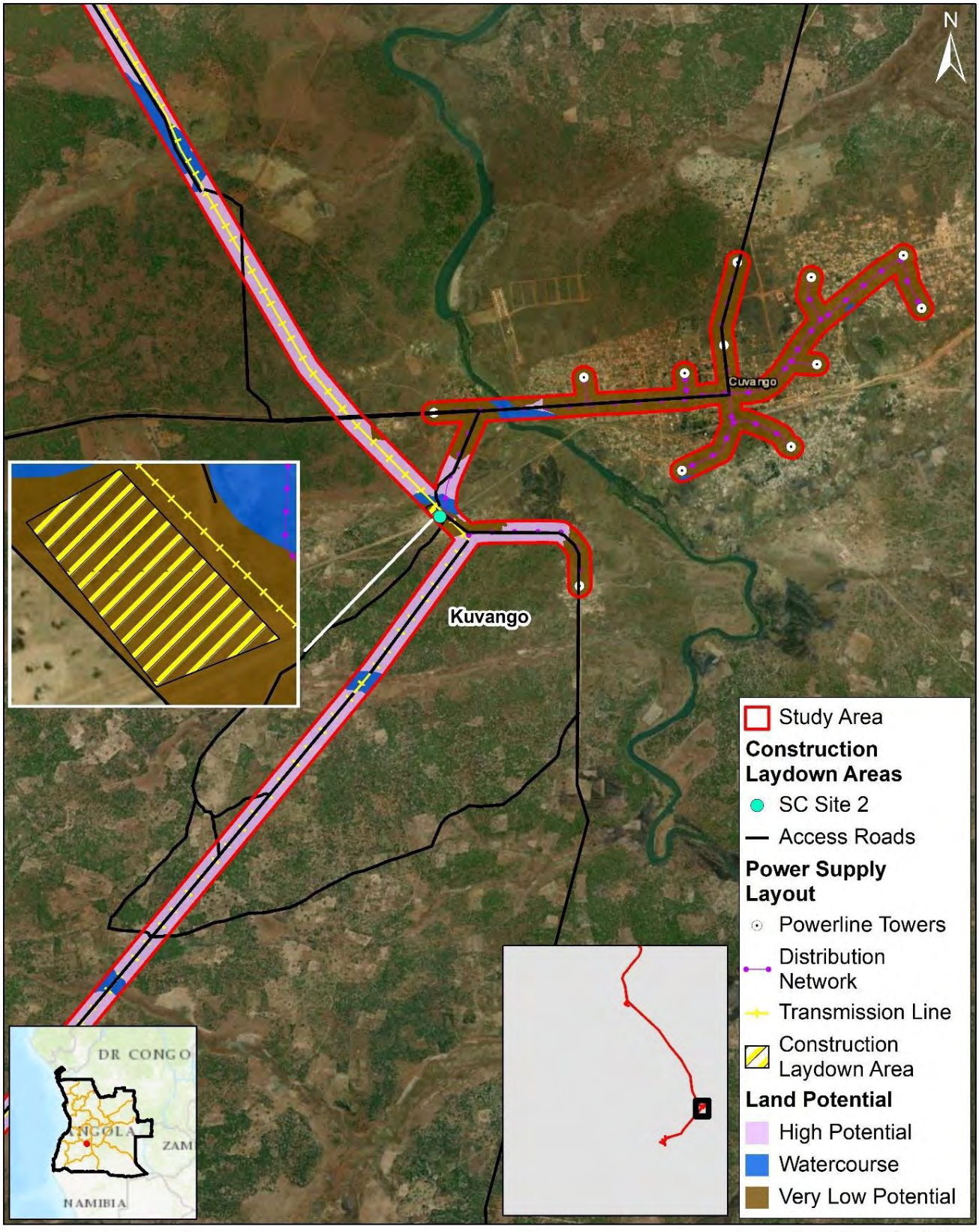
Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

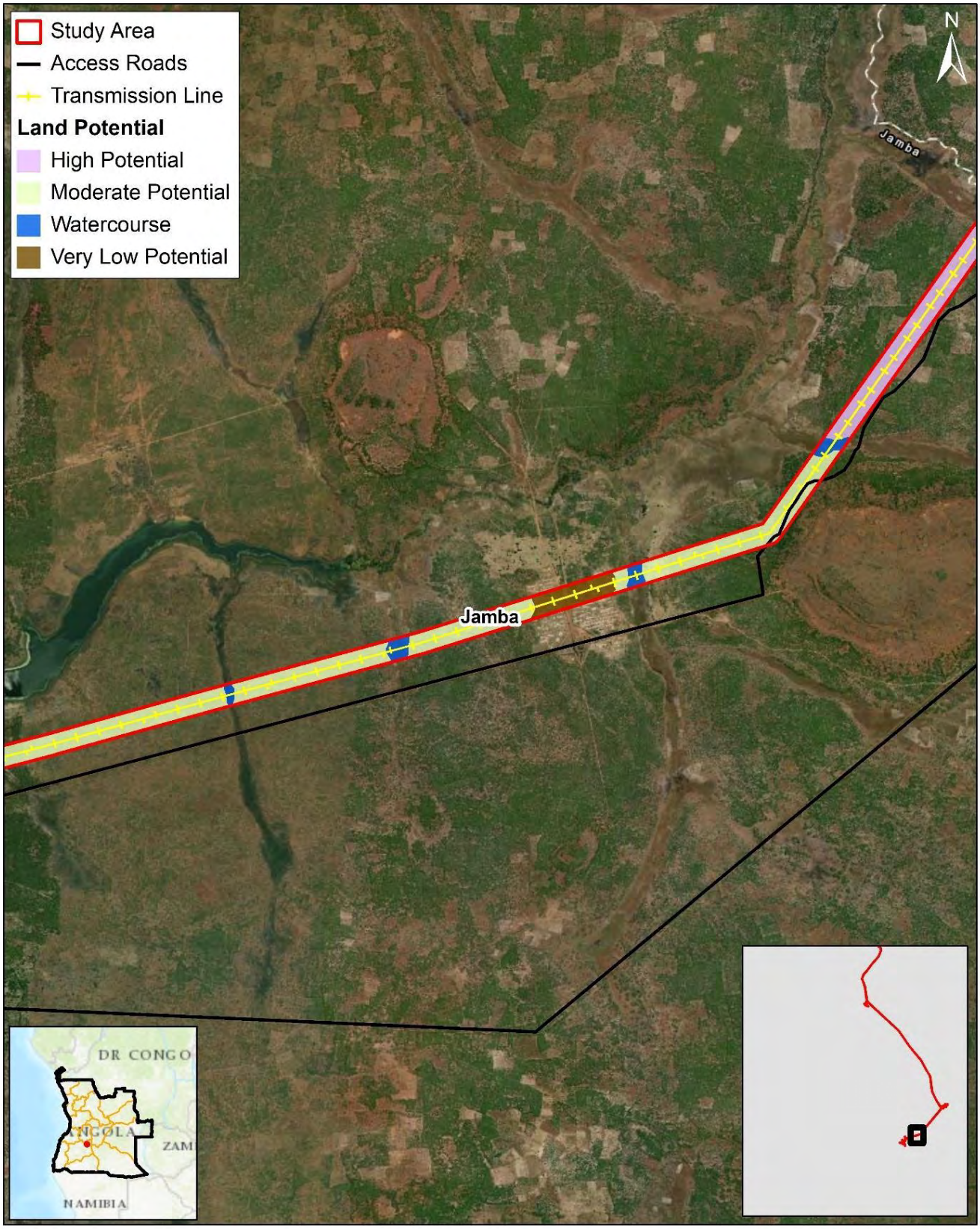
SAS Environmental Group of Companies

Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies

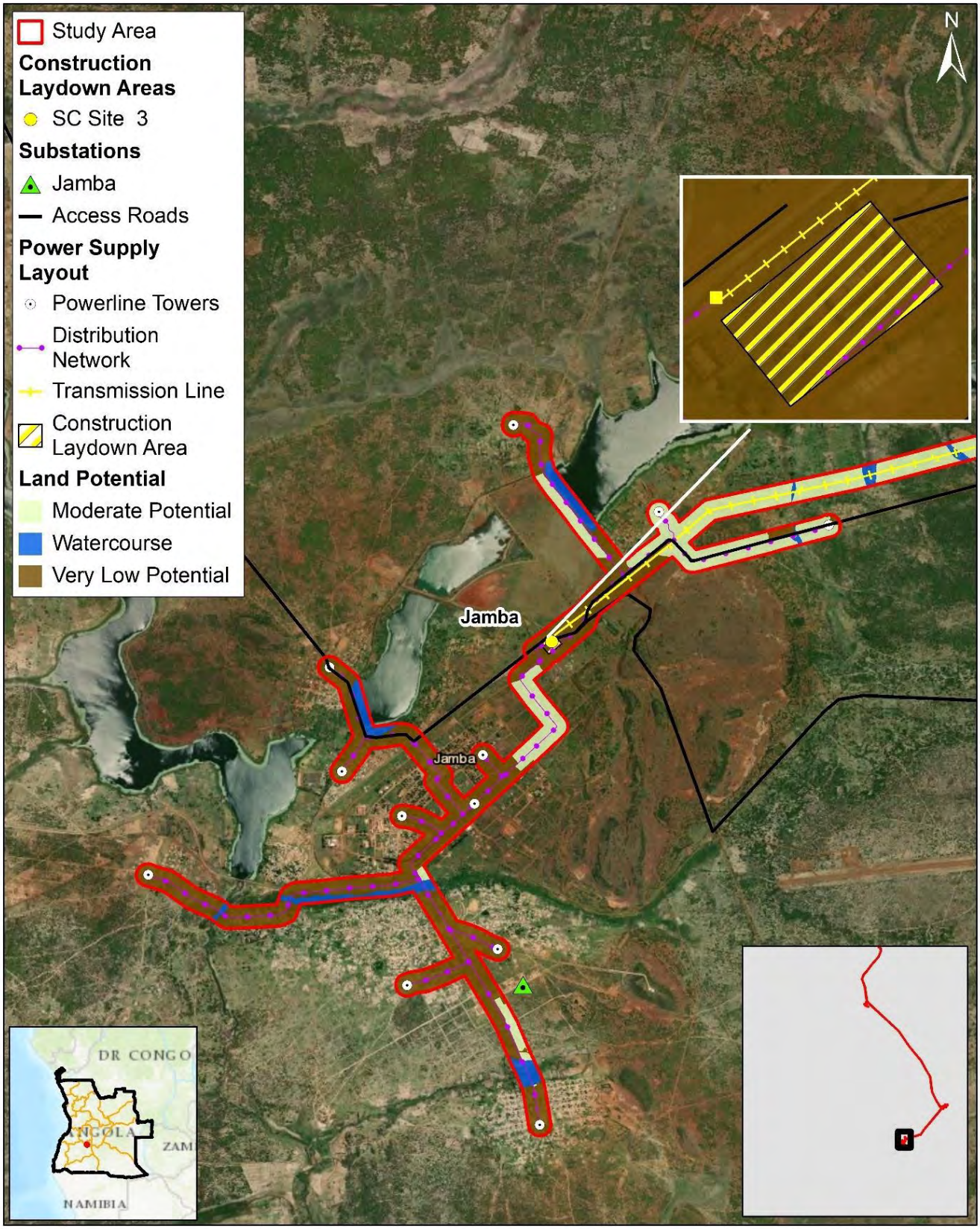


Project No: SAS 24-1055	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

0 0,45 0,9 1,35 km

SAS Environmental Group of Companies



Project No: SAS 24-1055 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - LAND POTENTIAL

Appendix D: Hydrology (Crossings and measured hydrology)

Appendix D1: River crossings

Appendix D1 – River/stream crossing locations

Point	X	Y	LATITUDE	LONGITUDE
	UTM 35S			
1	-689293.895	8345484.692	14° 42' 05.4704" S	16° 00' 44.0302" E
2	-688657.803	8345651.074	14° 42' 01.1559" S	16° 01' 05.1782" E
3	-687458.308	8345805.548	14° 41' 58.1071" S	16° 01' 44.8007" E
4	-686438.625	8344133.252	14° 42' 53.1422" S	16° 02' 15.5723" E
5	-688158.291	8347454.633	14° 41' 04.3177" S	16° 01' 24.4872" E
6	-684292.831	8349645.51	14° 40' 00.3742" S	16° 03' 34.8912" E
7	-683624.032	8349834.061	14° 39' 55.3950" S	16° 03' 57.1467" E
8	-682820.332	8350093.129	14° 39' 48.3723" S	16° 04' 23.9434" E
9	-680695.178	8350804.883	14° 39' 28.9428" S	16° 05' 34.8430" E
10	-679176.862	8351309.152	14° 39' 15.1918" S	16° 06' 25.4908" E
11	-677091.817	8352087.05	14° 38' 53.5711" S	16° 07' 35.1800" E
12	-675314.681	8353435.559	14° 38' 13.2261" S	16° 08' 35.6688" E
13	-673978.4	8355589.364	14° 37' 06.4495" S	16° 09' 22.9591" E
14	-670443.631	8360446.851	14° 34' 36.6187" S	16° 11' 26.6780" E
15	-669212.479	8362250.138	14° 33' 40.8585" S	16° 12' 09.9315" E
16	-668899.295	8362664.894	14° 33' 28.0787" S	16° 12' 20.8640" E
17	-668625.095	8363020.482	14° 33' 17.1305" S	16° 12' 30.4236" E
18	-666902.4	8365266.932	14° 32' 07.9430" S	16° 13' 30.4951" E
19	-666759.618	8365464.325	14° 32' 01.8499" S	16° 13' 35.4910" E
20	-665737.176	8366865.286	14° 31' 18.6168" S	16° 14' 11.2438" E
21	-665138.593	8367685.739	14° 30' 53.2957" S	16° 14' 32.1734" E
22	-662976.671	8370647.682	14° 29' 21.8725" S	16° 15' 47.7503" E
23	-662483.126	8372371.919	14° 28' 27.4850" S	16° 16' 06.6311" E
24	-661827.936	8373227.192	14° 28' 01.1276" S	16° 16' 29.4622" E
25	-664774.349	8375336.731	14° 26' 49.2102" S	16° 14' 56.0541" E
26	-664914.046	8375570.684	14° 26' 41.5179" S	16° 14' 51.8341" E
27	-666699.54	8378366	14° 25' 09.4351" S	16° 13' 57.5986" E
28	-668044.269	8380879.884	14° 23' 47.0228" S	16° 13' 17.3913" E
29	-668207.756	8381184.522	14° 23' 37.0353" S	16° 13' 12.5017" E
30	-669499.213	8384008.026	14° 22' 04.8090" S	16° 12' 34.5261" E
31	-669756.932	8385488.062	14° 21' 17.1010" S	16° 12' 28.3693" E
32	-670534.722	8389938.678	14° 18' 53.6369" S	16° 12' 09.7556" E
33	-673727.873	8397884.78	14° 14' 34.7966" S	16° 10' 37.3506" E
34	-675082.119	8400122.77	14° 13' 21.2174" S	16° 09' 56.4188" E
35	-678142.464	8405398.276	14° 10' 27.9841" S	16° 08' 24.2712" E
36	-678675.793	8406040.674	14° 10' 06.6494" S	16° 08' 07.7883" E
37	-680464.156	8408044.895	14° 08' 59.9024" S	16° 07' 12.2921" E
38	-680578.616	8408172.417	14° 08' 55.6546" S	16° 07' 08.7393" E
39	-681945.763	8409704.824	14° 08' 04.6229" S	16° 06' 26.3204" E

Point	X	Y	LATITUDE	LONGITUDE
	UTM 35S			
40	-682768.512	8410626.899	14° 07' 33.9169" S	16° 06' 00.7947" E
41	-683085.32	8410982.152	14° 07' 22.0871" S	16° 05' 50.9665" E
42	-683560.062	8411514.206	14° 07' 04.3696" S	16° 05' 36.2388" E
43	-684903.211	8413019.846	14° 06' 14.2332" S	16° 04' 54.5745" E
44	-686210.253	8414486.002	14° 05' 25.4144" S	16° 04' 14.0360" E
45	-687489.914	8416116.637	14° 04' 31.3824" S	16° 03' 34.6513" E
46	-689021.637	8418174.463	14° 03' 23.3228" S	16° 02' 47.6771" E
47	-689757.642	8419164.672	14° 02' 50.5759" S	16° 02' 25.1098" E
48	-691301.765	8421246.752	14° 01' 41.7274" S	16° 01' 37.7755" E
49	-692900.195	8423429.074	14° 00' 29.5978" S	16° 00' 48.8239" E
50	-692986.467	8423546.711	14° 00' 25.7096" S	16° 00' 46.1818" E
51	-694762.785	8425837.384	13° 59' 09.8549" S	15° 59' 51.5831" E
52	-695471.283	8426449.553	13° 58' 49.2327" S	15° 59' 29.3445" E
53	-696676.158	8427491.577	13° 58' 14.1323" S	15° 58' 51.5296" E
54	-696732.722	8427540.498	13° 58' 12.4844" S	15° 58' 49.7545" E
55	-696952.486	8427730.287	13° 58' 06.0910" S	15° 58' 42.8572" E
56	-697117.571	8427873.537	13° 58' 01.2666" S	15° 58' 37.6772" E
57	-699491.818	8429926.657	13° 56' 52.1097" S	15° 57' 23.1738" E
58	-700145.44	8430493.468	13° 56' 33.0206" S	15° 57' 02.6681" E
59	-700639.642	8430906.96	13° 56' 19.0690" S	15° 56' 47.1412" E
60	-700788.797	8431014.701	13° 56' 15.4031" S	15° 56' 42.4289" E
61	-701644.874	8431739.169	13° 55' 50.9739" S	15° 56' 15.5469" E
62	-702824.755	8432770.999	13° 55' 16.2402" S	15° 55' 38.5512" E
63	-703136.814	8433044.999	13° 55' 07.0188" S	15° 55' 28.7687" E
64	-704284.084	8434047.782	13° 54' 33.2629" S	15° 54' 52.7986" E
65	-704754.959	8434459.977	13° 54' 19.3888" S	15° 54' 38.0372" E
66	-704852.87	8434545.576	13° 54' 16.5074" S	15° 54' 34.9678" E
67	-705098.269	8434733.601	13° 54' 10.1326" S	15° 54' 27.2338" E
68	-705546.738	8435046.322	13° 53' 59.4695" S	15° 54' 13.0526" E
69	-707872.952	8437141.697	13° 52' 49.0451" S	15° 53' 00.2315" E
70	-709042.873	8438183.28	13° 52' 14.0188" S	15° 52' 23.5936" E
71	-709654.331	8438681.146	13° 51' 57.1981" S	15° 52' 04.3744" E
72	-710059.957	8438987.626	13° 51' 46.7996" S	15° 51' 51.5887" E
73	-710299.64	8439151.914	13° 51' 41.1920" S	15° 51' 44.0079" E
74	-710548.118	8439444.943	13° 51' 31.4598" S	15° 51' 36.3383" E
75	-711580.753	8440288.976	13° 51' 02.9505" S	15° 51' 03.8899" E
76	-711858.155	8440570.738	13° 50' 53.5348" S	15° 50' 55.2584" E
77	-714507.565	8442907.567	13° 49' 34.9215" S	15° 49' 32.2834" E
78	-717999.226	8446762.814	13° 47' 26.5617" S	15° 47' 44.1526" E
79	-718730.736	8450663.337	13° 45' 20.9264" S	15° 47' 26.2692" E

Point	X	Y	LATITUDE	LONGITUDE
	UTM 35S			
80	-719153.461	8452917.883	13° 44' 08.3098" S	15° 47' 15.9314" E
81	-719248.362	8453426.489	13° 43' 51.9291" S	15° 47' 13.6139" E
82	-719437.032	8454430.187	13° 43' 19.6008" S	15° 47' 08.9947" E
83	-719812.31	8456204.146	13° 42' 22.4011" S	15° 46' 59.4636" E
84	-720367.471	8457683.135	13° 41' 34.3499" S	15° 46' 43.6048" E
85	-720739.482	8458673.37	13° 41' 02.1780" S	15° 46' 32.9766" E
86	-721196.346	8459803.22	13° 40' 25.4223" S	15° 46' 19.7919" E
87	-721870.042	8462244.054	13° 39' 06.4897" S	15° 46' 01.5359" E
88	-721792.384	8462482.734	13° 38' 58.9861" S	15° 46' 04.4363" E
89	-721320.471	8463931.476	13° 38' 13.4406" S	15° 46' 22.0570" E
90	-721143.58	8464473.955	13° 37' 56.3859" S	15° 46' 28.6601" E
91	-719733.823	8466448.57	13° 36' 55.4468" S	15° 47' 17.6909" E
92	-718118.94	8468624.488	13° 35' 48.3770" S	15° 48' 13.7146" E
93	-715130.197	8473152.698	13° 33' 28.2179" S	15° 49' 58.1301" E
94	-714570.216	8473883.682	13° 33' 05.7031" S	15° 50' 17.5116" E
95	-714182.832	8474389.188	13° 32' 50.1326" S	15° 50' 30.9184" E
96	-713790.813	8474900.988	13° 32' 34.3673" S	15° 50' 44.4854" E
97	-712980.369	8475958.51	13° 32' 01.7907" S	15° 51' 12.5305" E
98	-712064.118	8477154.894	13° 31' 24.9325" S	15° 51' 44.2352" E
99	-711964.15	8477285.621	13° 31' 20.9046" S	15° 51' 47.6945" E
100	-711360.173	8478072.364	13° 30' 56.6668" S	15° 52' 08.5889" E
101	-710981.237	8478835.056	13° 30' 32.8653" S	15° 52' 22.1010" E
102	-709987.795	8481499.748	13° 29' 09.2182" S	15° 52' 58.5151" E
103	-710070.879	8484084.261	13° 27' 46.5524" S	15° 52' 59.6663" E
104	-711413.353	8485001.629	13° 27' 15.2917" S	15° 52' 17.2297" E

Appendix D2: River crossings hydrology

Appendix D2 – Hydrology at river/stream crossings

Stream crossing location	Catchment area (km^2)	Daily average stream flow (l/s)	Mean annual runoff (Mm^3/annum)	100-yr flood peak (m^3/s)	100-yr flood elevation (approx. mamsl)	Conservative estimated floodline offsets (m from centre)*
1	1 622	8270	261	838	1 436.68	35
2	8.3	42	1.3	35	1 465.77	85
3	6.7	34	1.1	30	1 451.46	120
4	1.6	8	0.3	11	1 477.79	55
5	417	2125	67.1	286	Weir structure	N/A
6	2.6	13	0.4	15	1 485.58	40
7	2.0	10	0.3	12	1 484.41	25
8	3.2	16	0.5	17	1 480.95	20
9	5.9	30	1.0	27	1 491.28	35
10	3.0	15	0.5	17	1 488.12	25
11	17.9	91	2.9	61	1 488.07	40
12	5.6	28	0.9	26	1 493.04	25
13	41.6	212	6.7	129	1 491.91	90
14	1.1	6	0.2	7.6	1 539.96	15
15	16.3	83	2.6	52	1 506.75	65
16	1.1	6	0.2	7.4	1 509.19	20
17	1.8	9	0.3	11	1 510.85	20
18	0.2	1	0.0	1.9	1 519.87	15
19	0.1	0	0.0	1.0	1 520.07	15
20	5.2	27	0.8	23	1 491.90	40
21	2.1	10	0.3	12	1 493.38	20
22	4.8	25	0.8	22	1 470.14	25
23	82.9	423	13.3	163	1 451.52	35
24	7 549	53 599	1 691	2 109	1 426.58	105

Stream crossing location	Catchment area (km^2)	Daily average stream flow (l/s)	Mean annual runoff (Mm^3/annum)	100-yr flood peak (m^3/s)	100-yr flood elevation (approx. mamsl)	Conservative estimated floodline offsets (m from centre)*
25	8.4	43	1.3	33	1 476.84	60
26	7.9	40	1.3	31	1 479.19	65
27	24.8	127	4.0	71	1 480.17	40
28	1.0	5	0.2	7.1	1 522.13	30
29	27.2	139	4.4	76	1 517.39	25
30	1.2	6	0.2	7.9	1 564.86	30
31	11.0	56	1.8	40	1 556.03	70
32	3.2	16	0.5	16	1 593.50	15
33	1.9	10	0.3	11	1 604.55	65
34	17.1	87	2.8	54	1 574.53	30
35	1.0	5	0.2	7.0	1 608.39	15
36	0.8	4	0.1	6.2	1 607.84	15
37	0.9	5	0.1	6.6	1 609.03	15
38	1.4	7	0.2	9.1	1 609.50	15
39	1.9	10	0.3	11	1 610.70	15
40	1.2	6	0.2	7.9	1 610.63	15
41	0.3	2	0.0	2.9	1 614.08	15
42	2.7	14	0.4	14	1 610.94	15
43	3.7	19	0.6	18	1 633.86	25
44	1.1	6	0.2	7.0	1 670.39	15
45	2.8	14	0.4	14	1 647.31	15
46	4.6	23	0.7	20	1 632.31	35
47	1.0	5	0.2	6.4	1 631.35	15
48	4.9	30	1.0	21	1 631.00	35
49	0.7	4	0.1	5.1	1 654.29	15

Stream crossing location	Catchment area (km^2)	Daily average stream flow (l/s)	Mean annual runoff (Mm^3/annum)	100-yr flood peak (m^3/s)	100-yr flood elevation (approx. mamsl)	Conservative estimated floodline offsets (m from centre)*
50	0.8	5	0.2	5.5	1 655.23	15
51	0.5	3	0.1	4.1	1 656.28	15
52	6.7	41	1.3	26	1 628.78	50
53	0.2	1	0.0	2.0	1 647.65	15
54	0.2	1	0.0	2.2	1 644.41	15
55	0.6	3	0.1	4.3	1 634.81	15
56	0.5	3	0.1	3.8	1 630.77	15
57	24.7	150	4.7	66	1 594.39	60
58	1.7	11	0.3	10	1 591.29	20
59	8.1	49	1.6	29	1 588.38	35
60	3.7	23	0.7	17	1 589.31	35
61	0.3	2	0.1	2.7	1 622.55	15
62	0.3	2	0.1	2.7	1 630.85	15
63	0.5	3	0.1	4.0	1 626.31	15
64	0.8	5	0.1	5.4	1 597.80	15
65	0.1	1	0.0	1.7	1 592.65	15
66	260	1 586	50.0	179	Weir structure	N/A
67	261	1 592	50.2	179	1 586.73	30
68	267	1 630	51.5	184	1 585.33	45
69	2.5	15	0.5	13	1 644.07	15
70	3.6	22	0.7	16	1 626.60	35
71	11.8	72	2.3	39	1 619.57	30
72	12.5	76	2.4	40	1 614.90	50
73	3.6	22	0.7	16	1 614.47	15
74	0.0	0	0.0	0.2	1 612.73	15

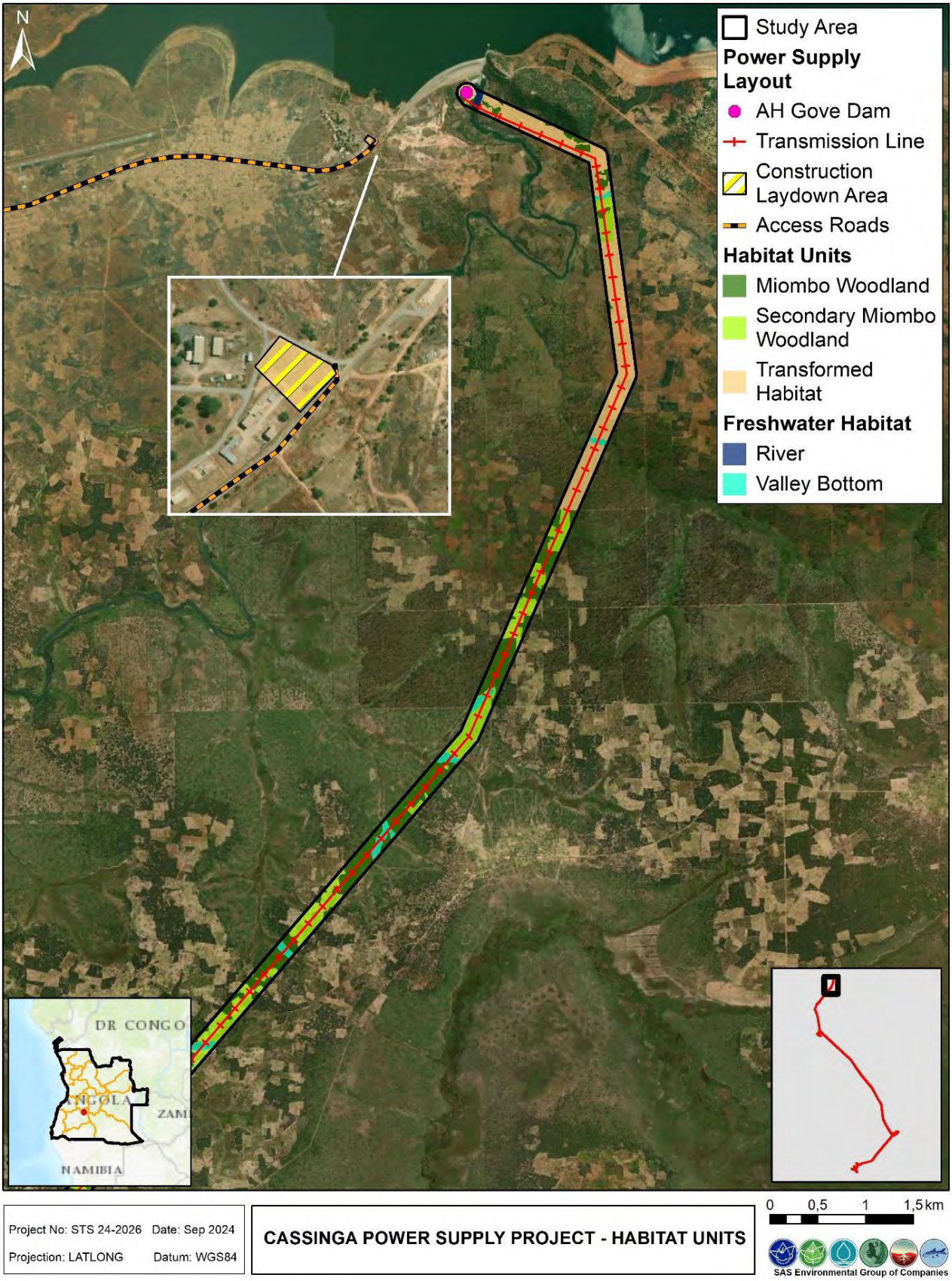
Stream crossing location	Catchment area (km^2)	Daily average stream flow (l/s)	Mean annual runoff (Mm^3/annum)	100-yr flood peak (m^3/s)	100-yr flood elevation (approx. mamsl)	Conservative estimated floodline offsets (m from centre)*
75	20.4	125	3.9	57	1 601.72	45
76	66.0	403	12.7	194	1 597.31	60
77	211	1 287	40.6	226	1 591.16	85
78	0.7	4	0.1	5.2	1 640.62	15
79	8.6	53	1.7	31	1 594.64	25
80	54.3	331	10.4	119	1 567.98	55
81	2.3	14	0.4	12	1 574.27	15
82	1.5	9	0.3	8.7	1 604.61	15
83	2.7	16	0.5	13	1 634.50	40
84	2.7	16	0.5	13	1 618.59	15
85	4.2	30	0.9	18	1 634.58	45
86	22.8	162	5.1	62	1 587.49	25
87	0.5	3	0.1	3.9	1 595.36	15
88	0.7	5	0.2	4.9	1 589.74	15
89	2.1	15	0.5	11	1 582.28	15
90	2.5	17	0.6	13	1 585.30	20
91	2.4	17	0.5	12	1 607.07	15
92	560	3 976	125	438	1 572.68	15
93	3.5	25	0.8	17	1 583.14	15
94	0.9	6	0.2	6.3	1 586.96	15
95	1.5	11	0.3	9.1	1 580.35	30
96	0.8	6	0.2	5.8	1 588.85	25
97	0.5	4	0.1	4.3	1 602.39	15
98	1.2	8	0.3	7.6	1 586.90	30
99	0.5	4	0.1	4.3	1 585.12	25

Stream crossing location	Catchment area (km^2)	Daily average stream flow (l/s)	Mean annual runoff (Mm^3/annum)	100-yr flood peak (m^3/s)	100-yr flood elevation (approx. mamsl)	Conservative estimated floodline offsets (m from centre)*
100	3.7	26	0.8	17	1 583.59	30
101	0.3	2	0.1	3.0	1 607.77	15
102	43.2	306	9.7	79	1 580.39	20
103	5.1	36	1.1	22	1 569.56	15
104	4 667	0	0.0	0.0	Dam outlet controlled	N/A

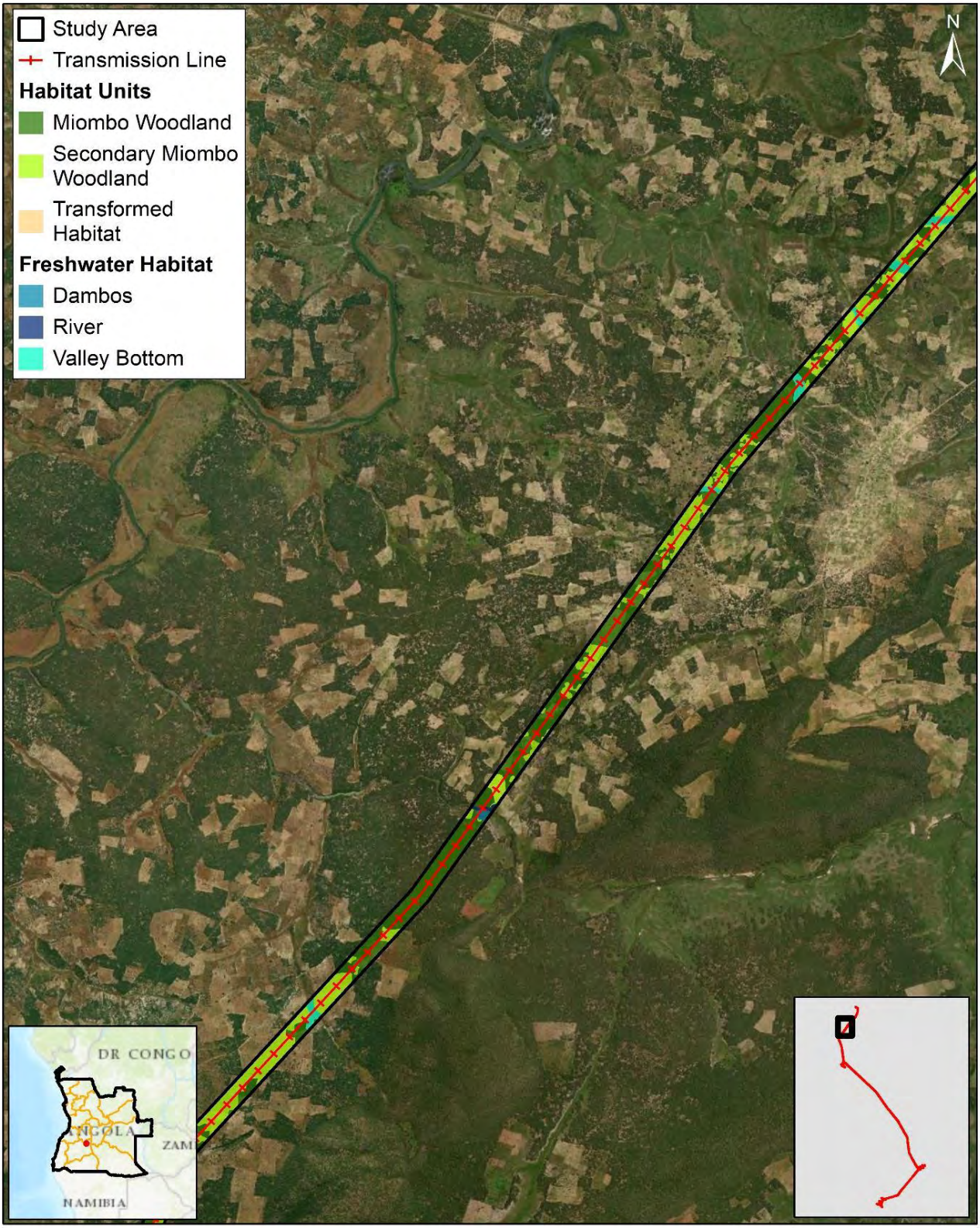
* To alleviate the need for detailed floodlines of all 104 river crossings, conservative offsets from the stream centerline are provided. Where pylons are required to be placed within these offsets, backwater analyses may be required to determine flow velocities at pylon plinths. This will account for backwater effects of any downstream controls in channels that have subcritical flow regimes.

Appendix E: Floral and faunal maps

Appendix E1: Floral habitat units in study area



Conceptual illustration of the habitat units within the study area

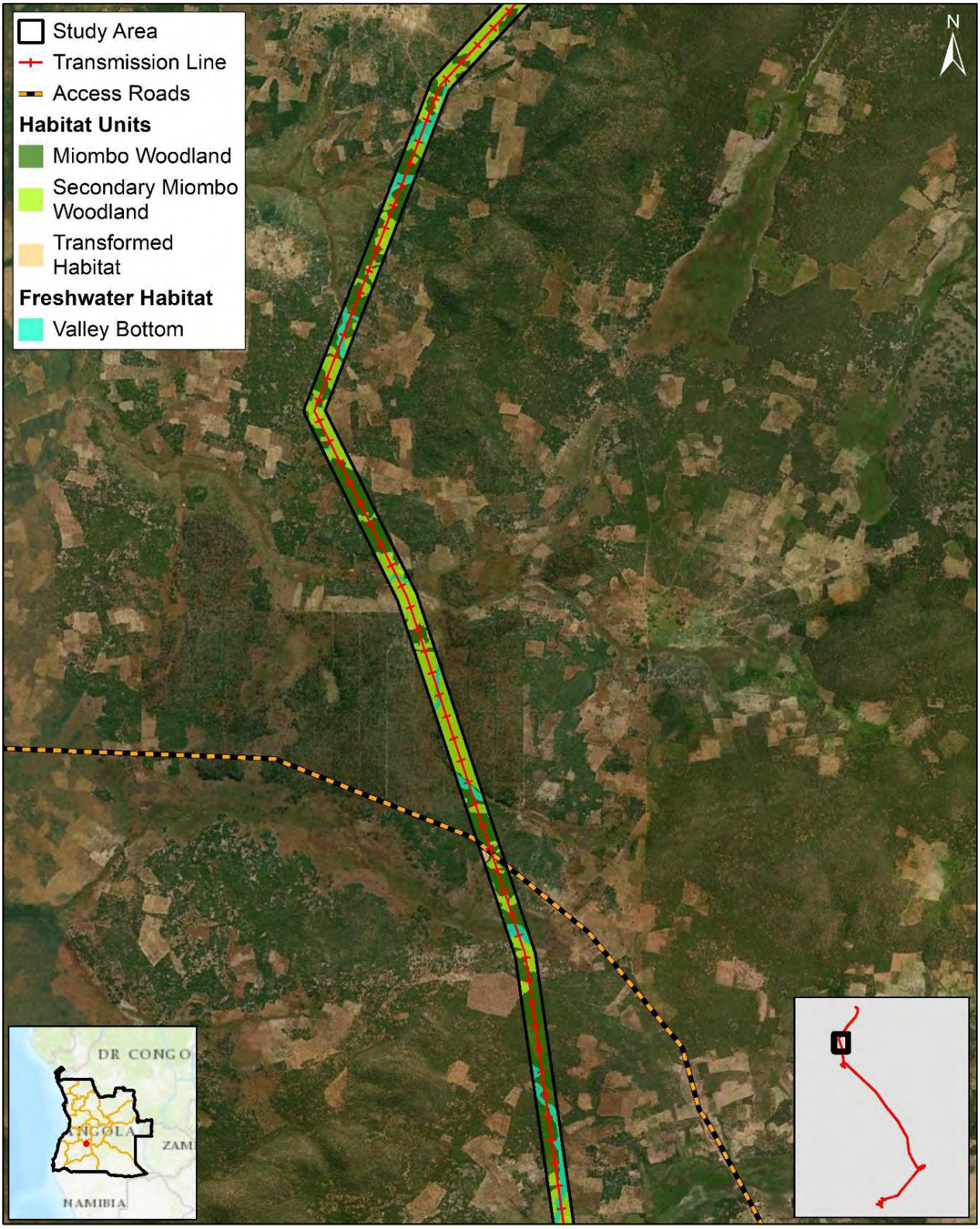


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



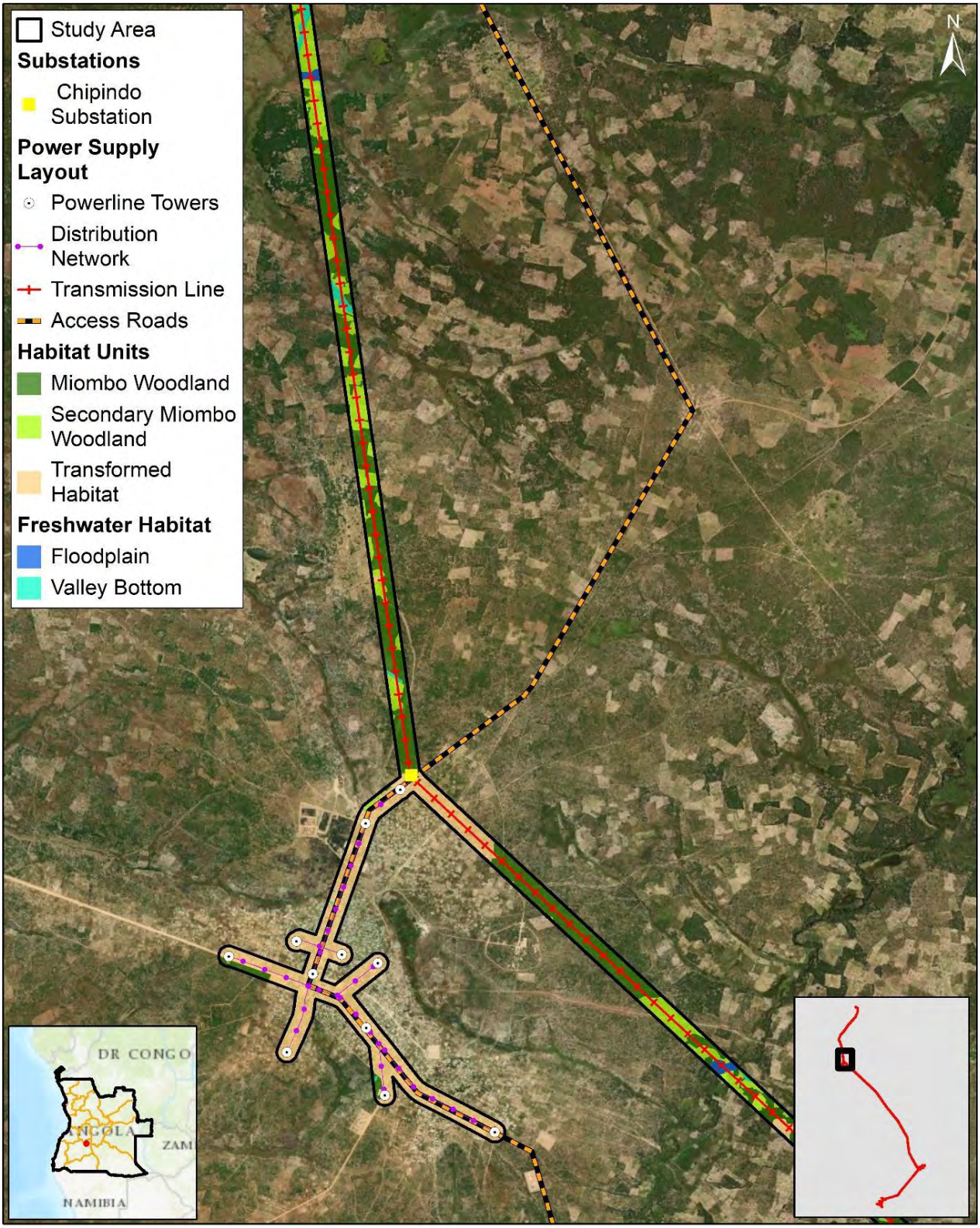
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



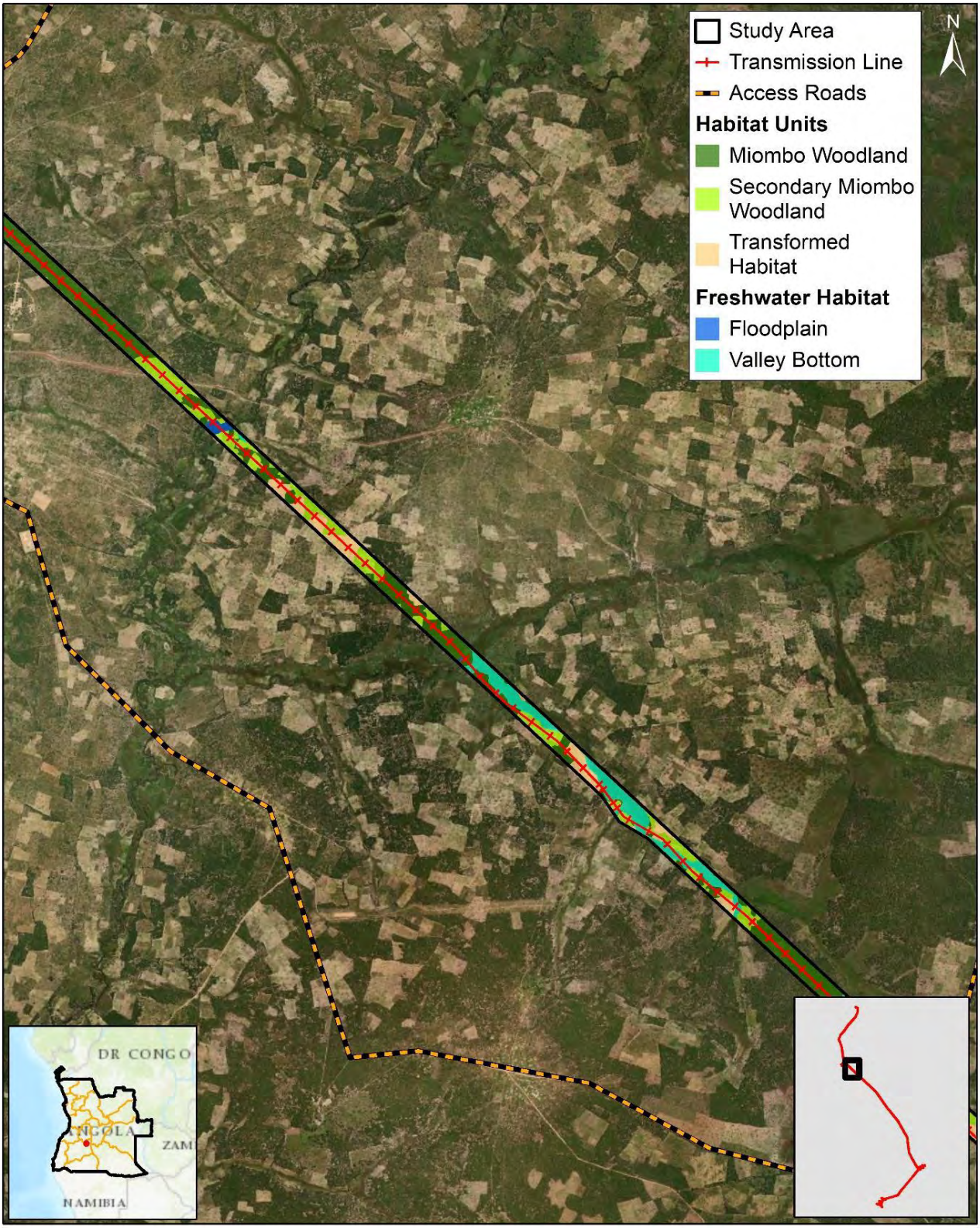
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



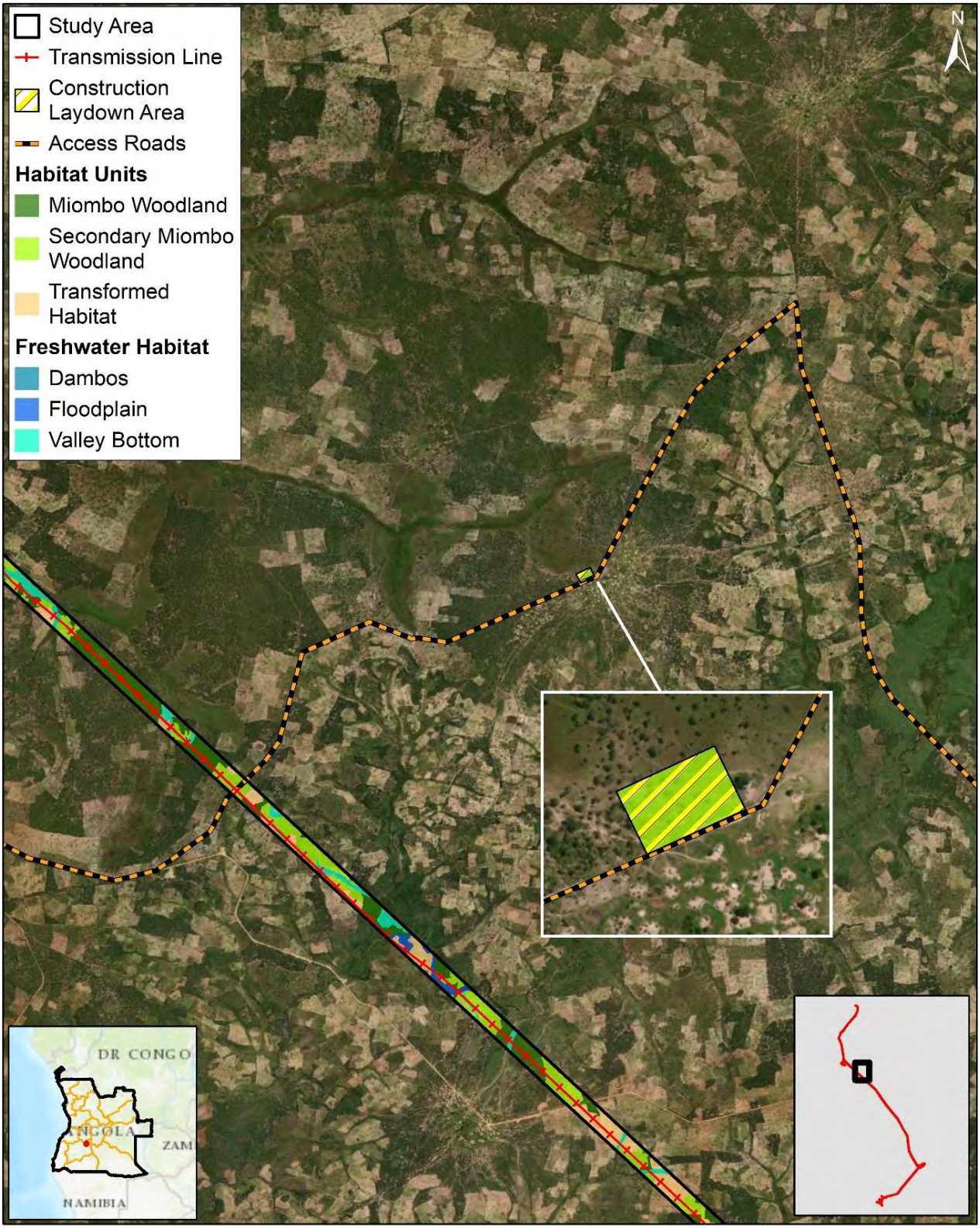
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies

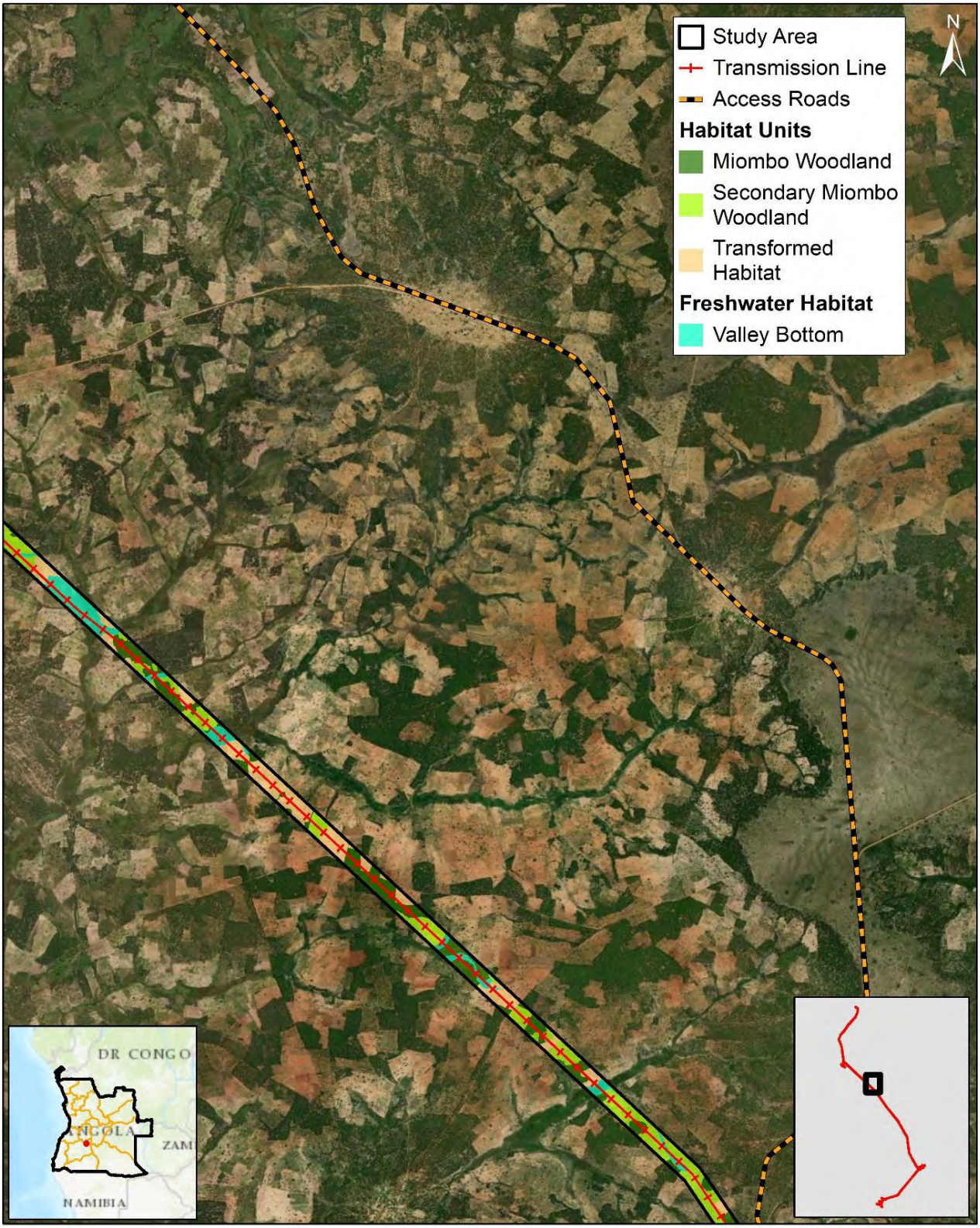


Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

SAS Environmental Group of Companies



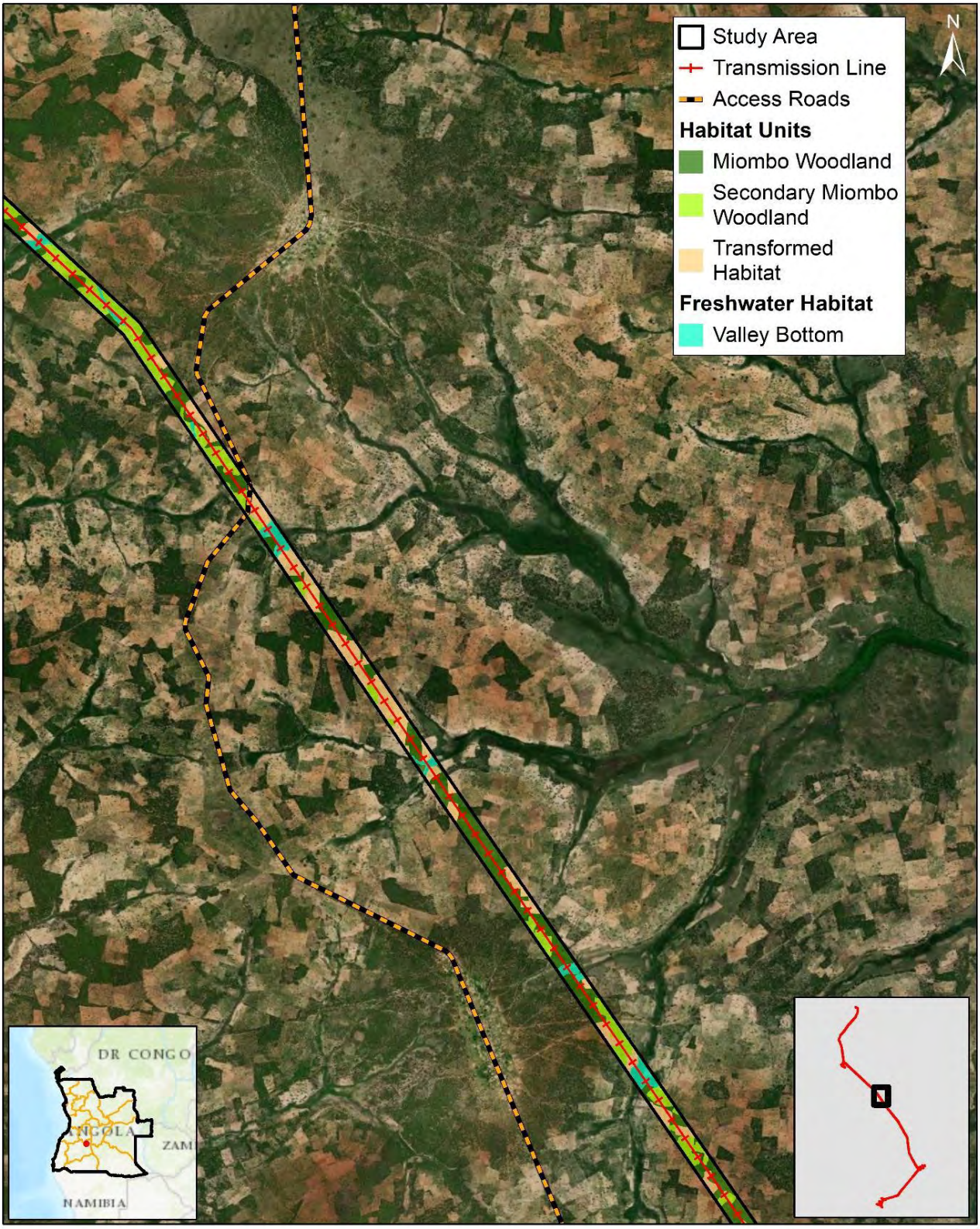
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



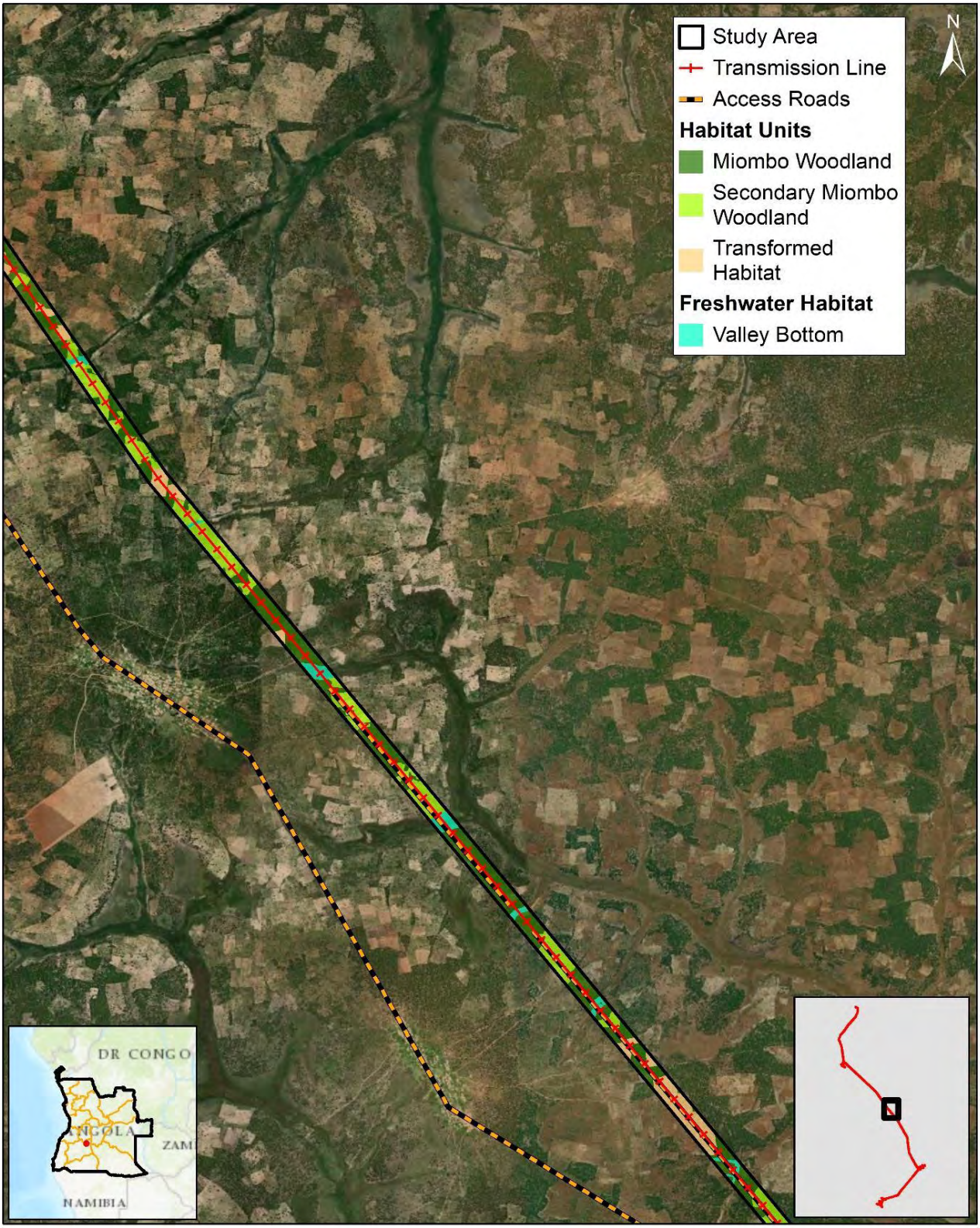
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



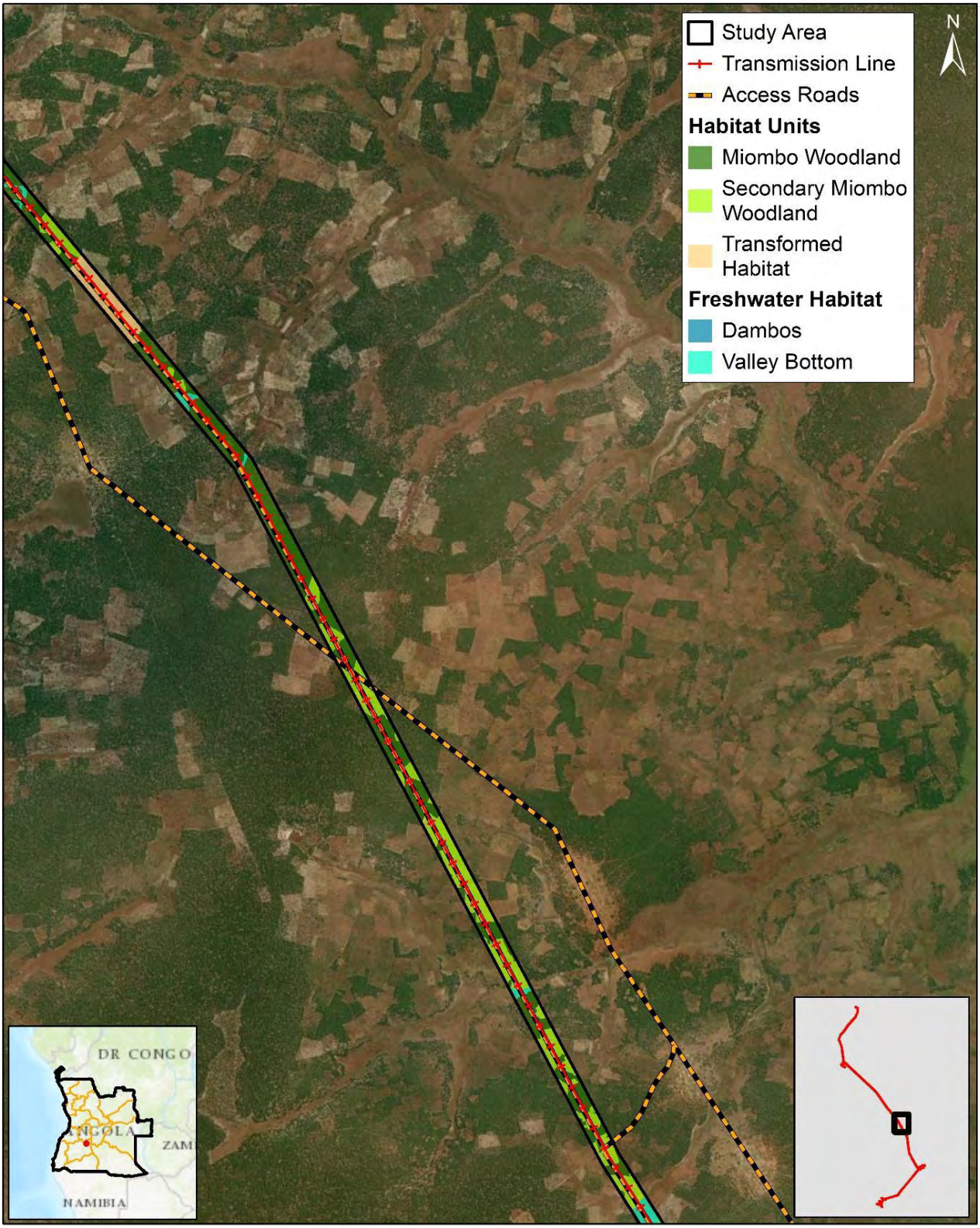
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



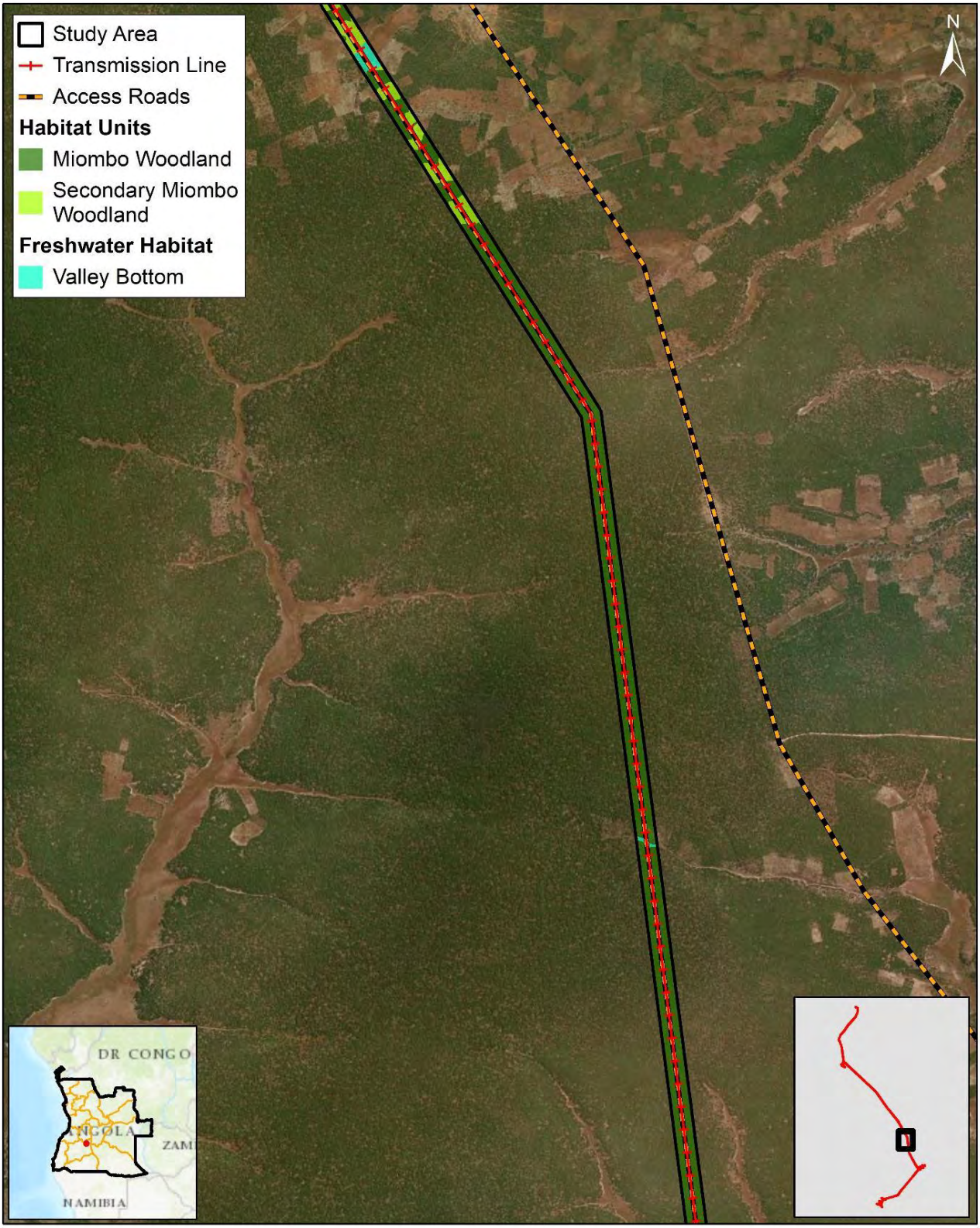
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies

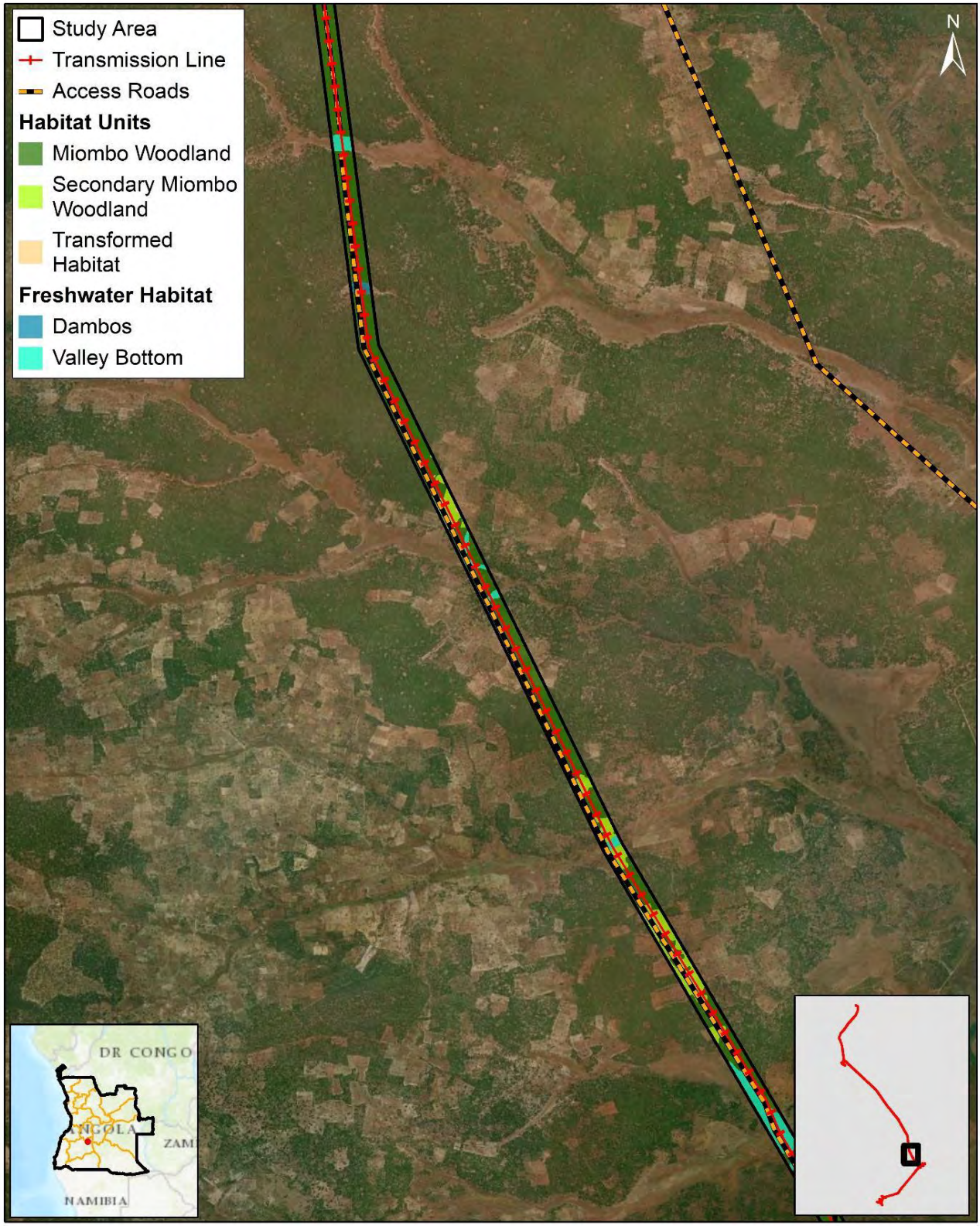


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies

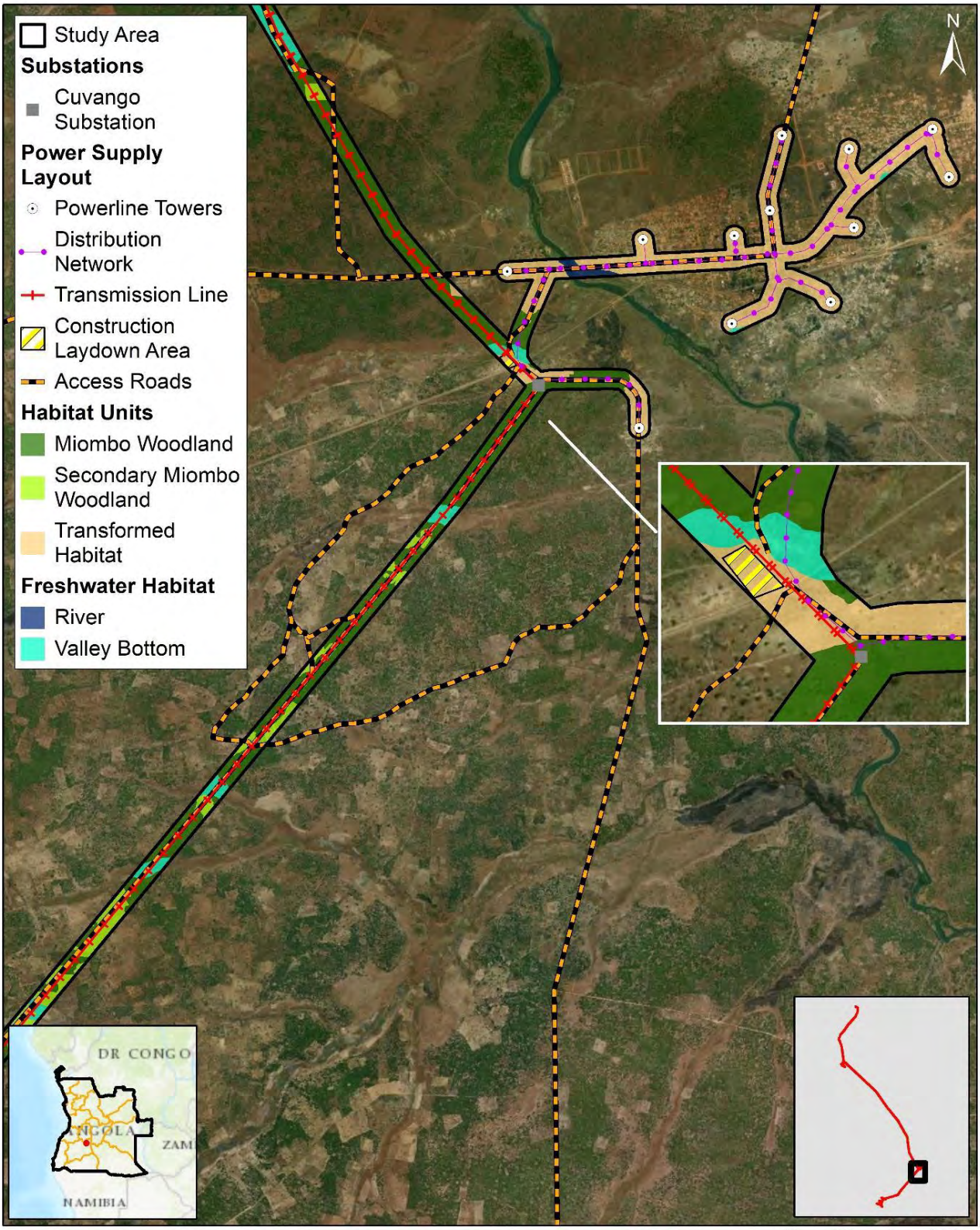


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



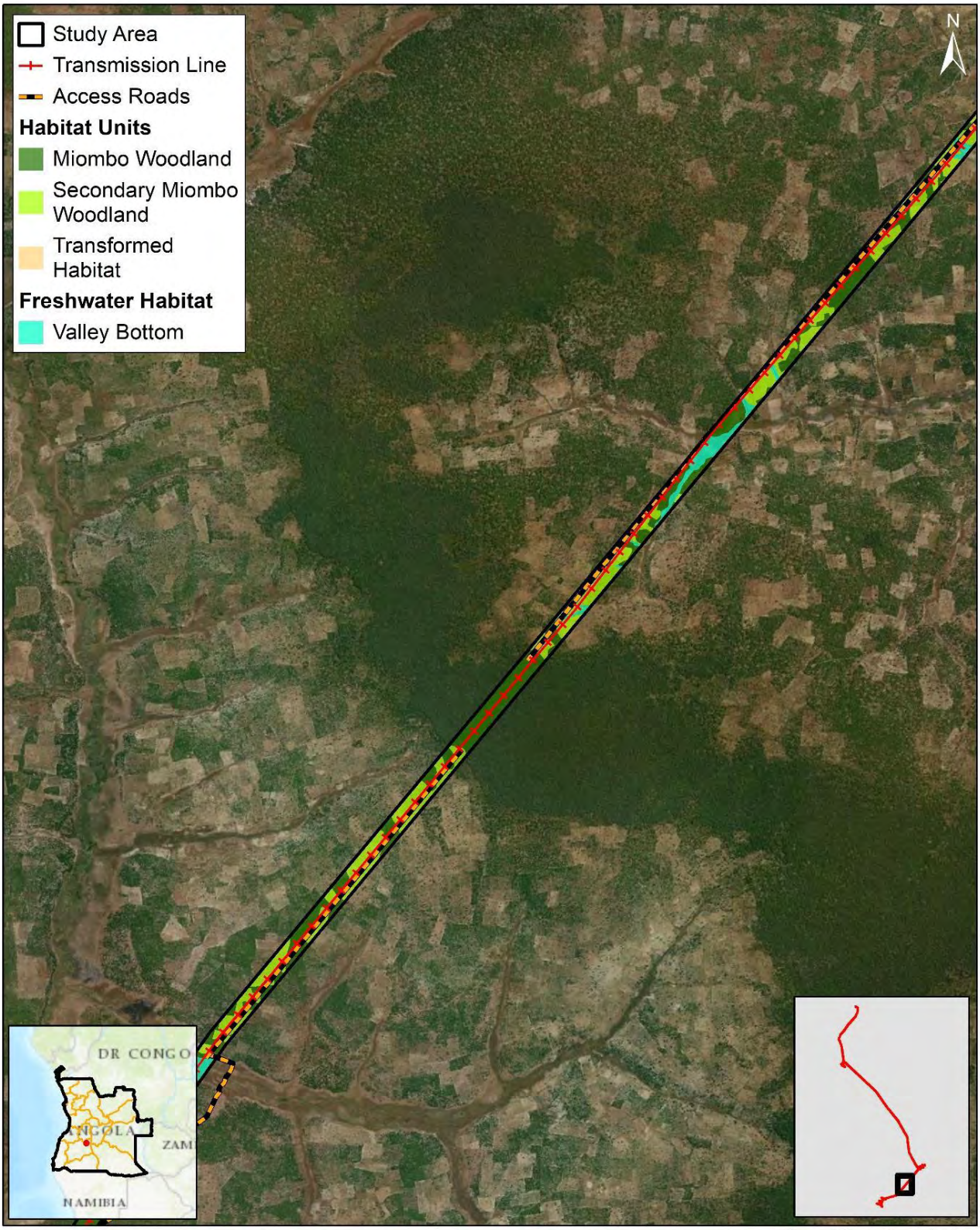
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



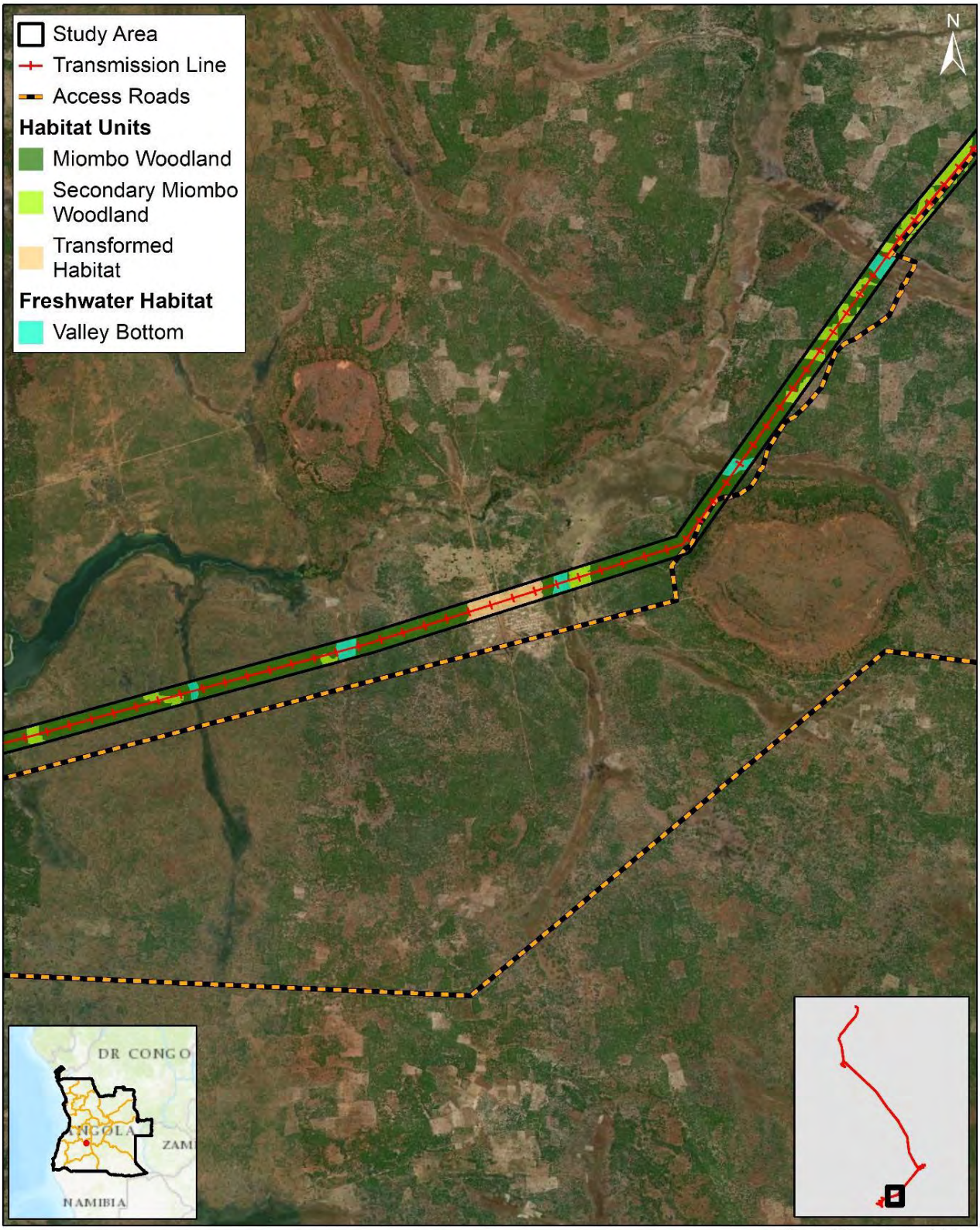
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



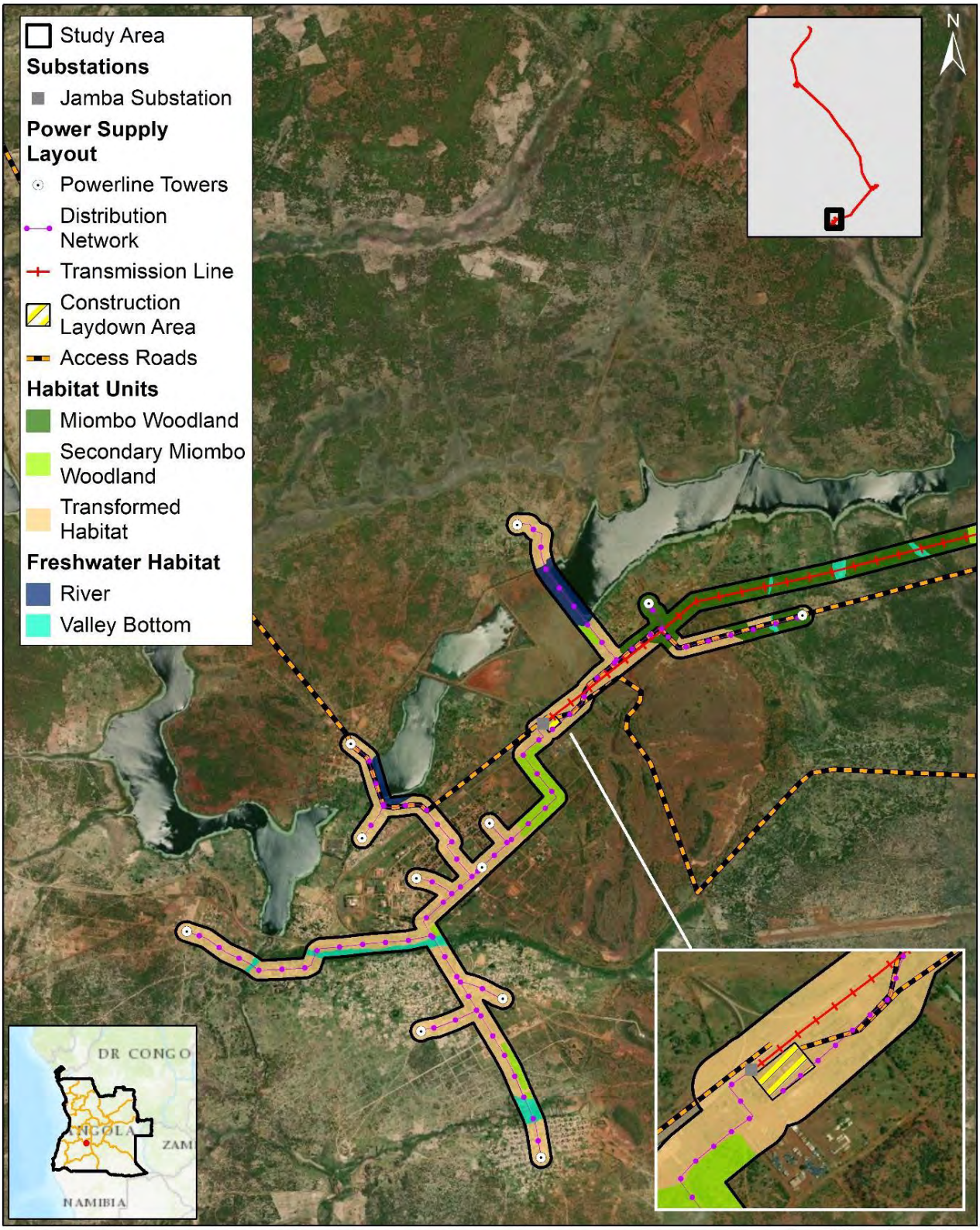
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

0 0,5 1 1,5 km

SAS Environmental Group of Companies



Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

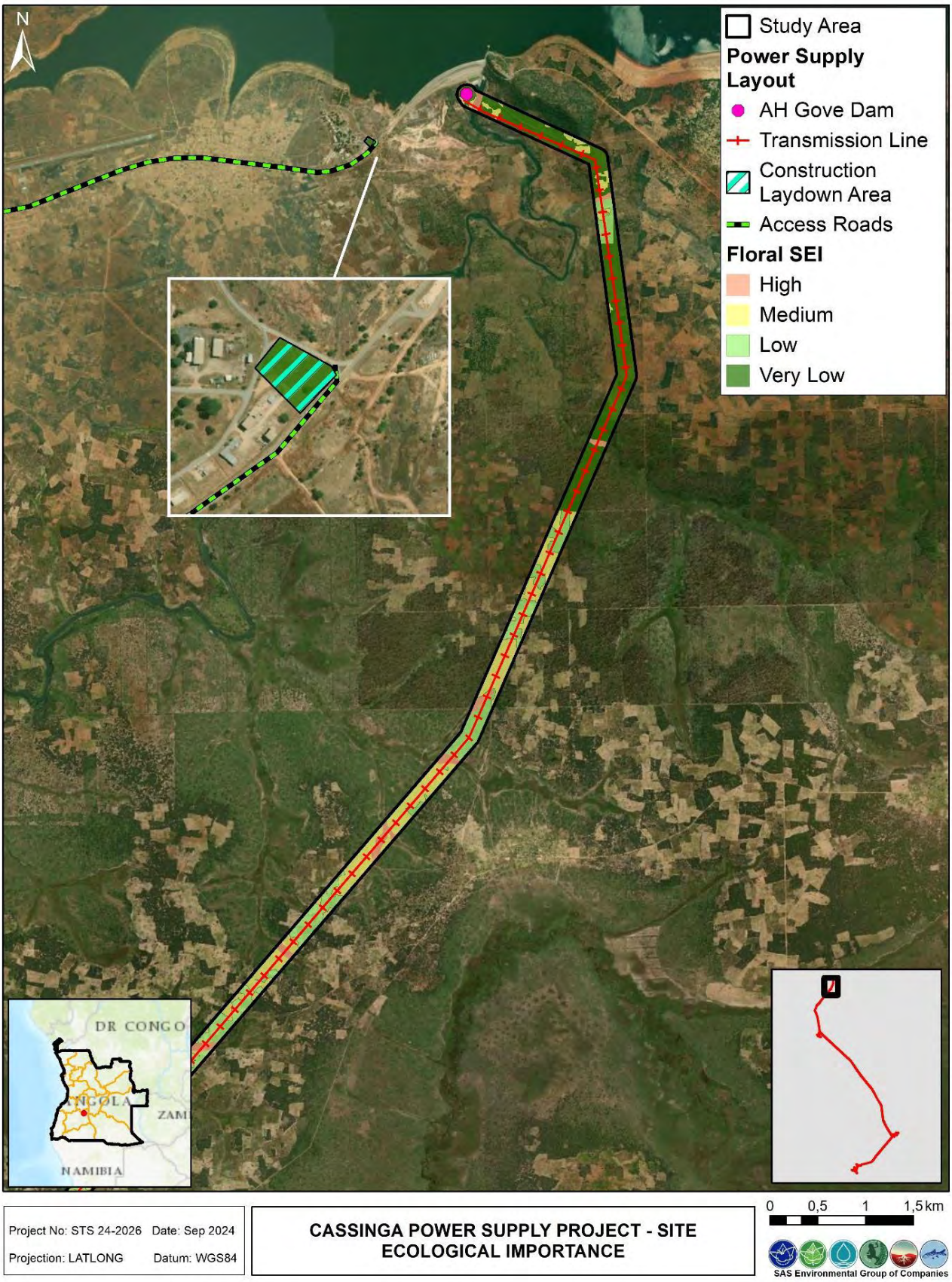
CASSINGA POWER SUPPLY PROJECT - HABITAT UNITS

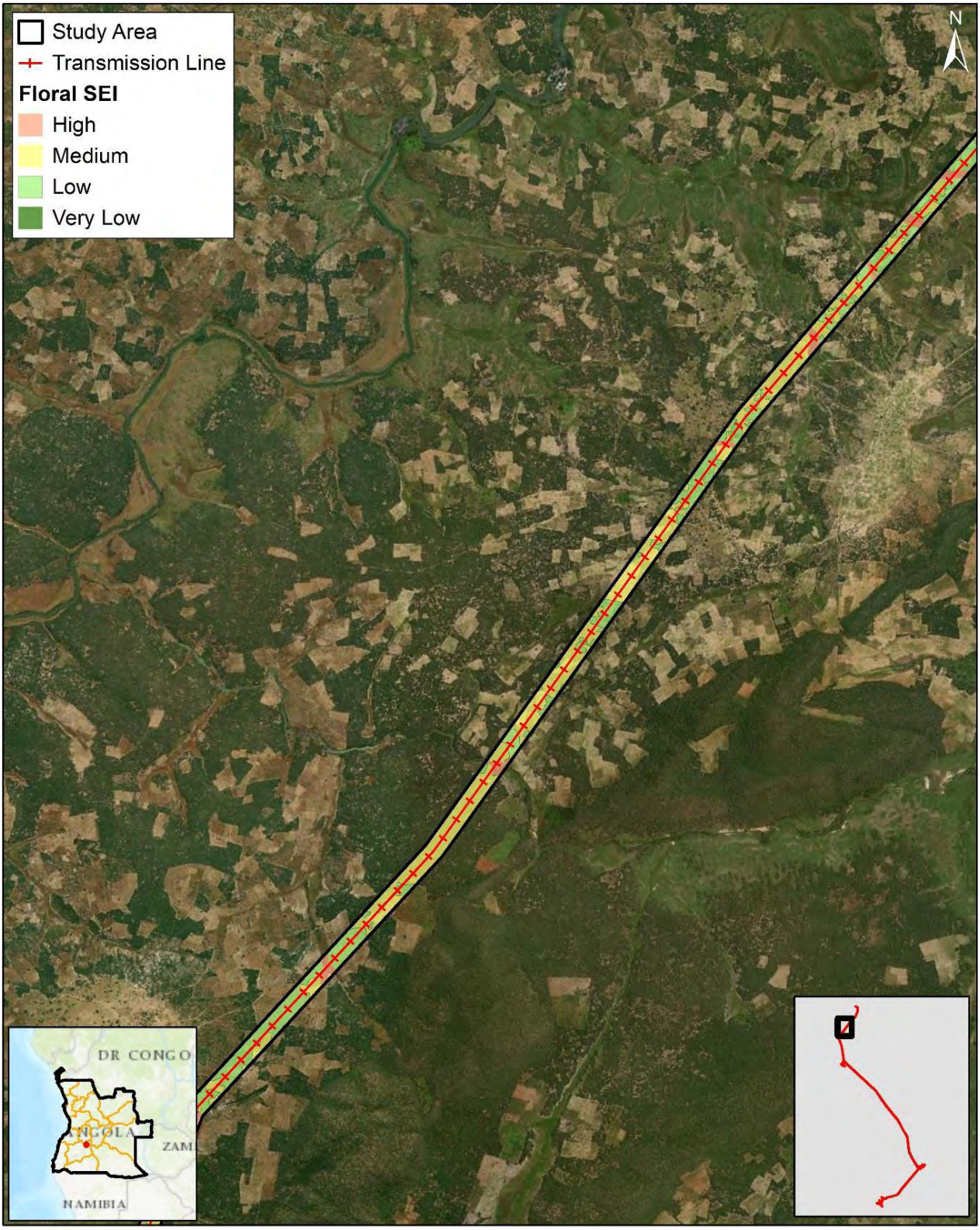
0 0,5 1 1,5 km

SAS Environmental Group of Companies

Appendix E2: Sensitivity maps of floral and faunal assessments

Sensitivity map pertaining to the **floral** assessment of the study area



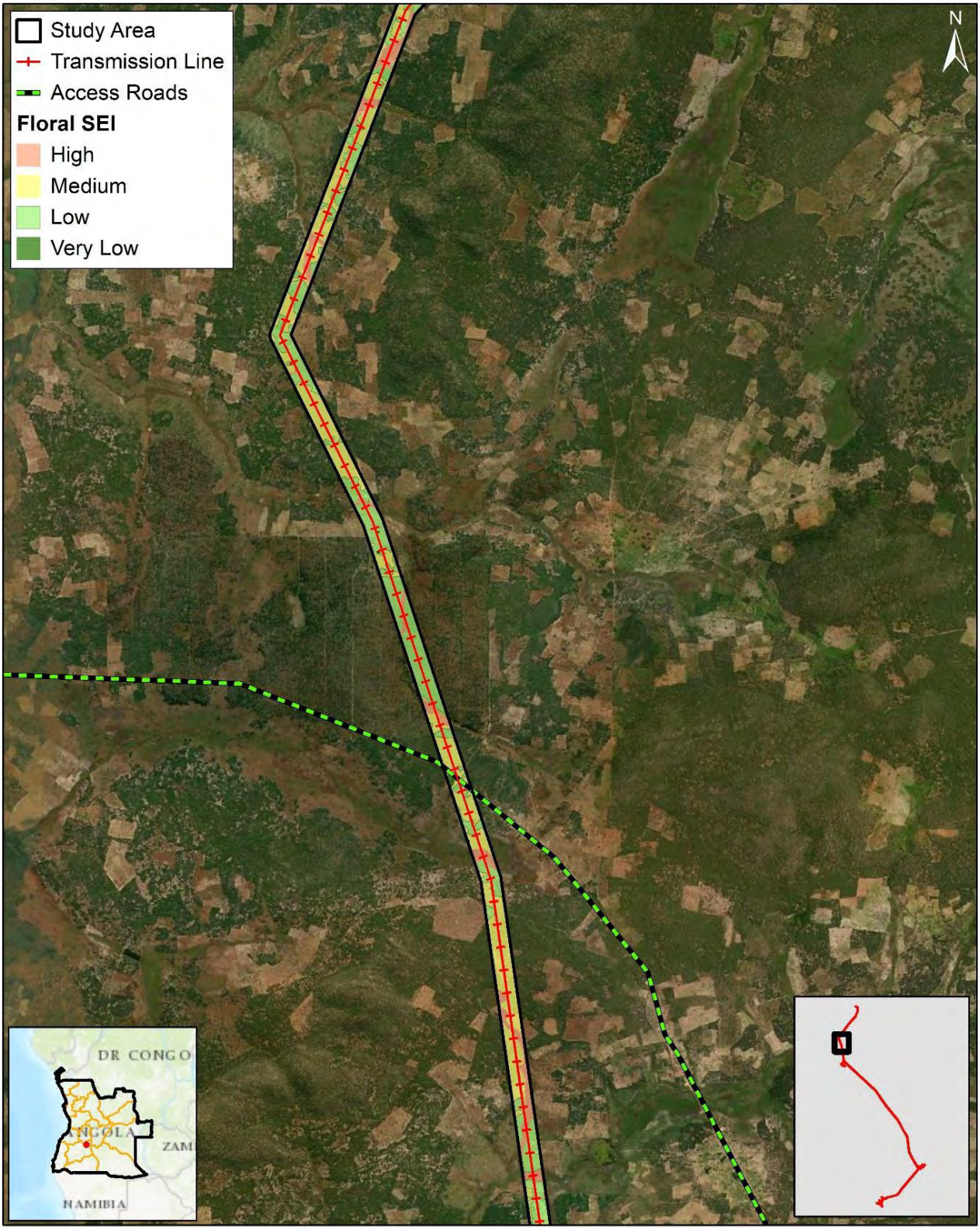


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

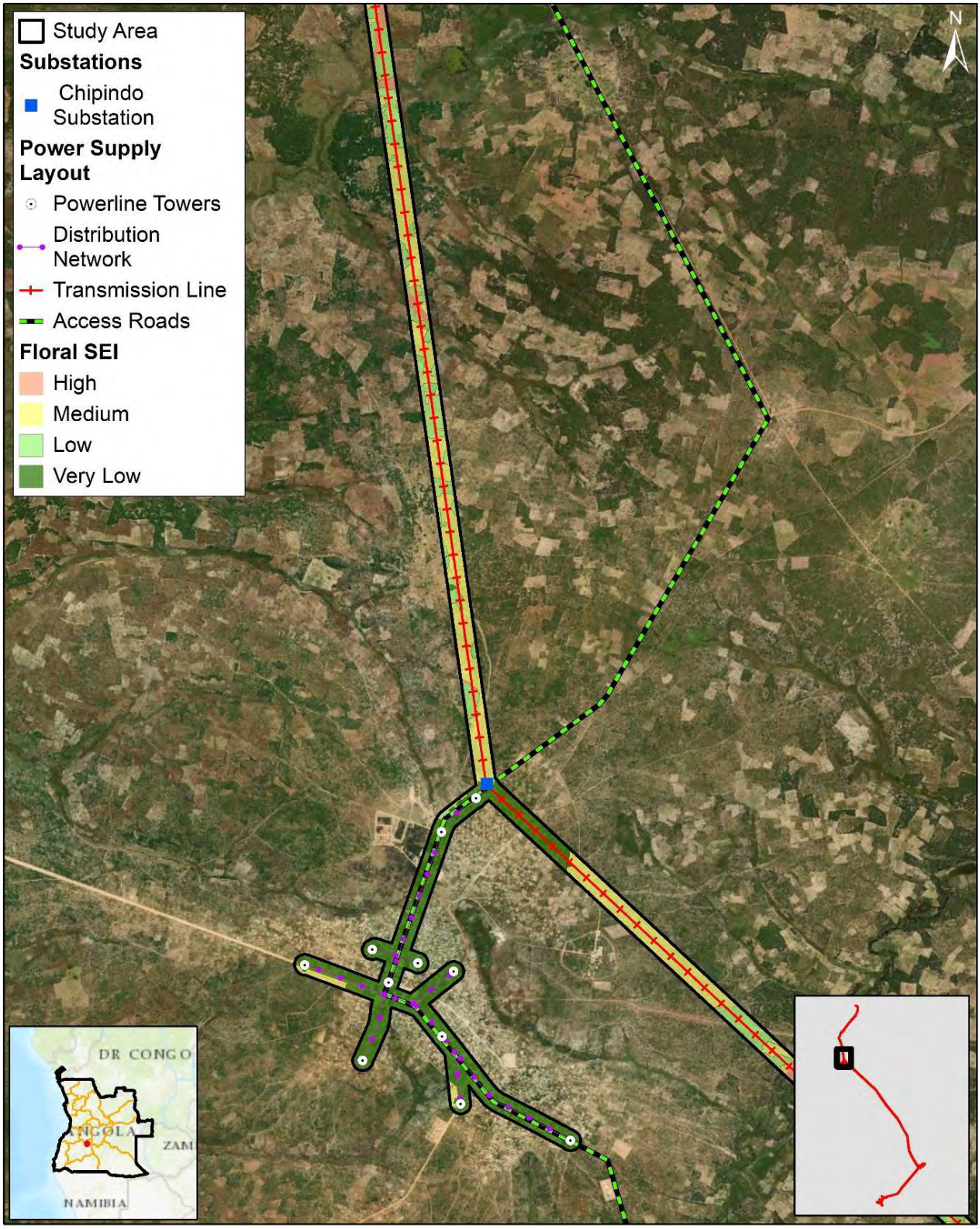


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

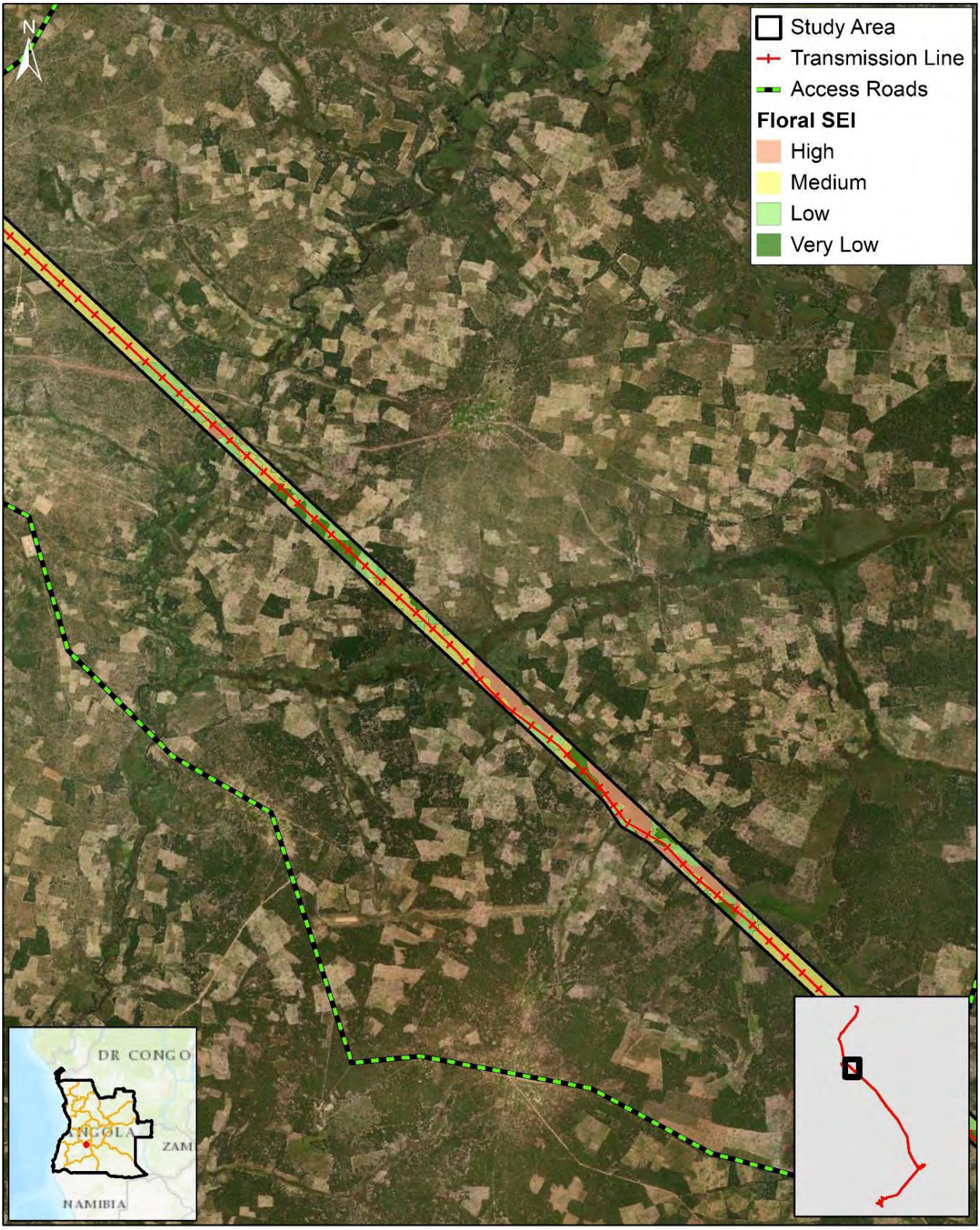


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

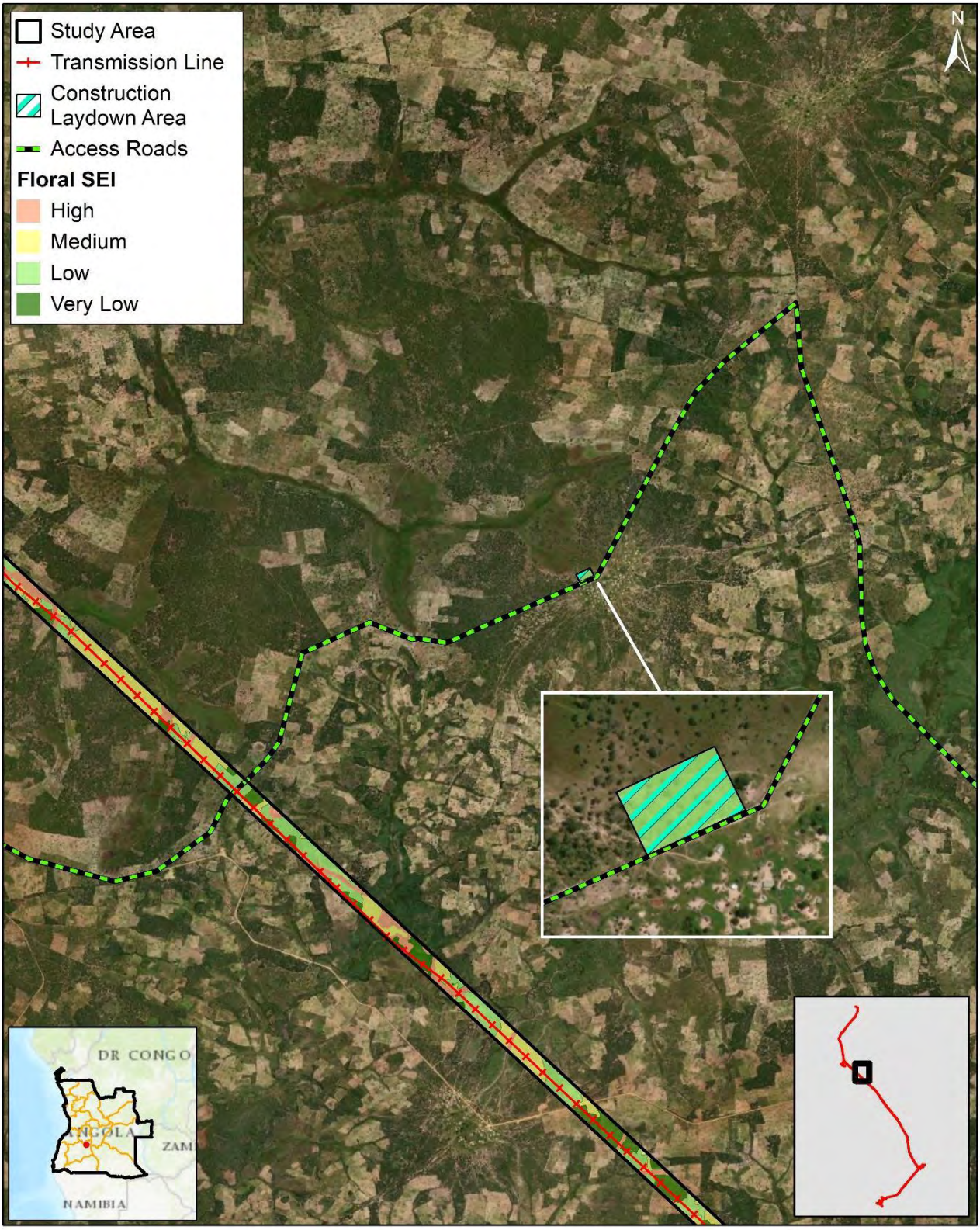


Project No: STS 24-2026	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

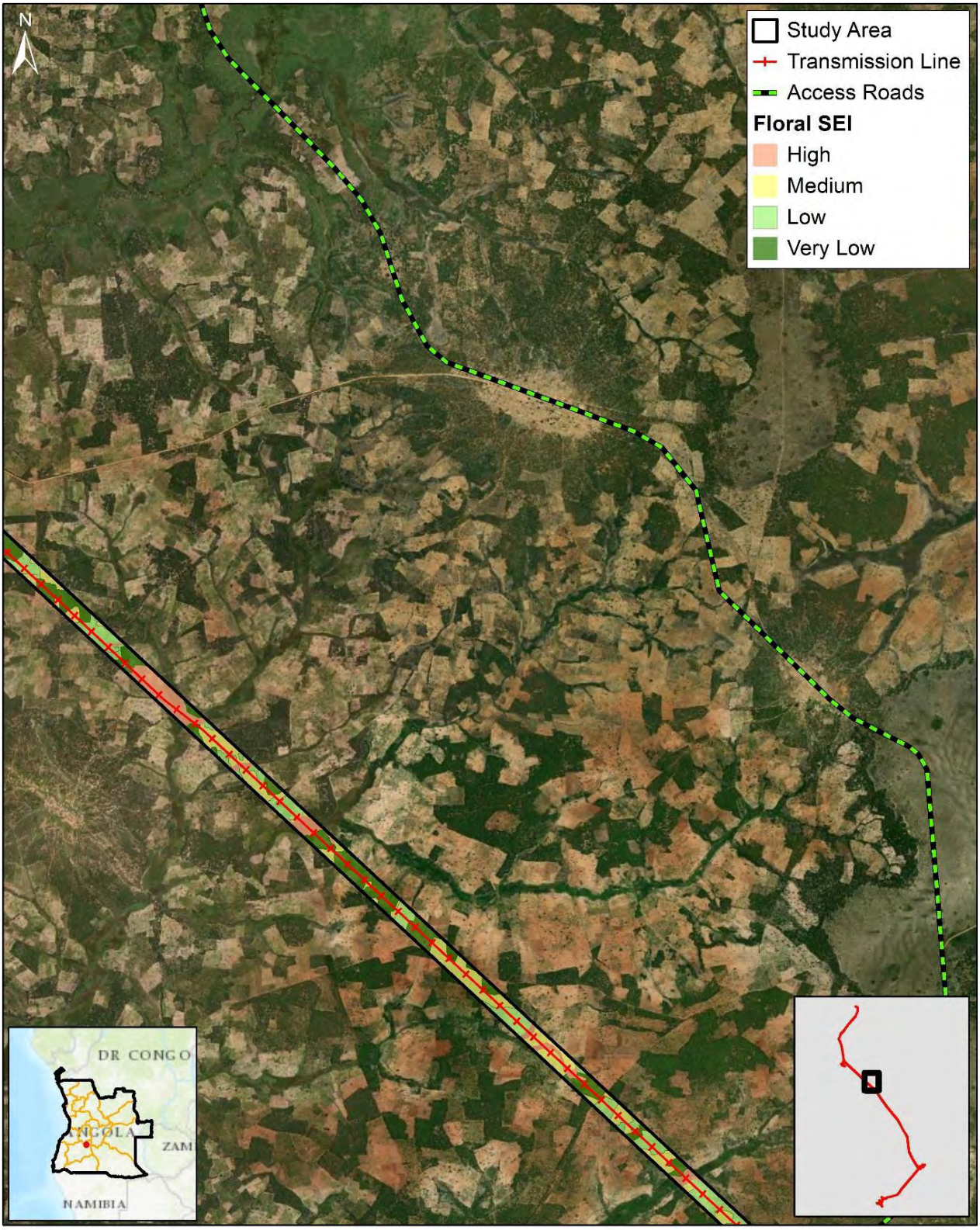


Project No: STS 24-2026	Date: Sep 2024
Projection: LATLONG	Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

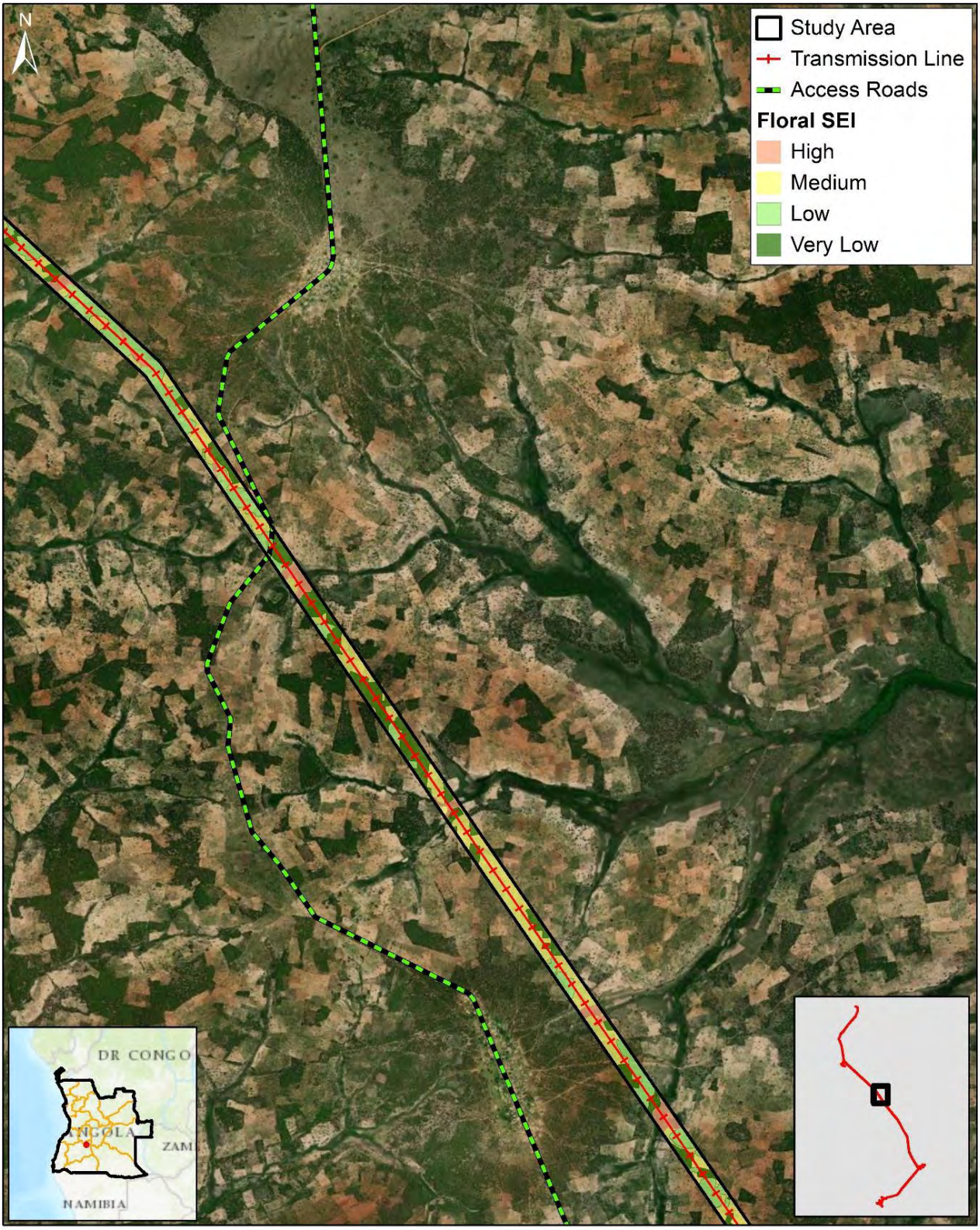


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

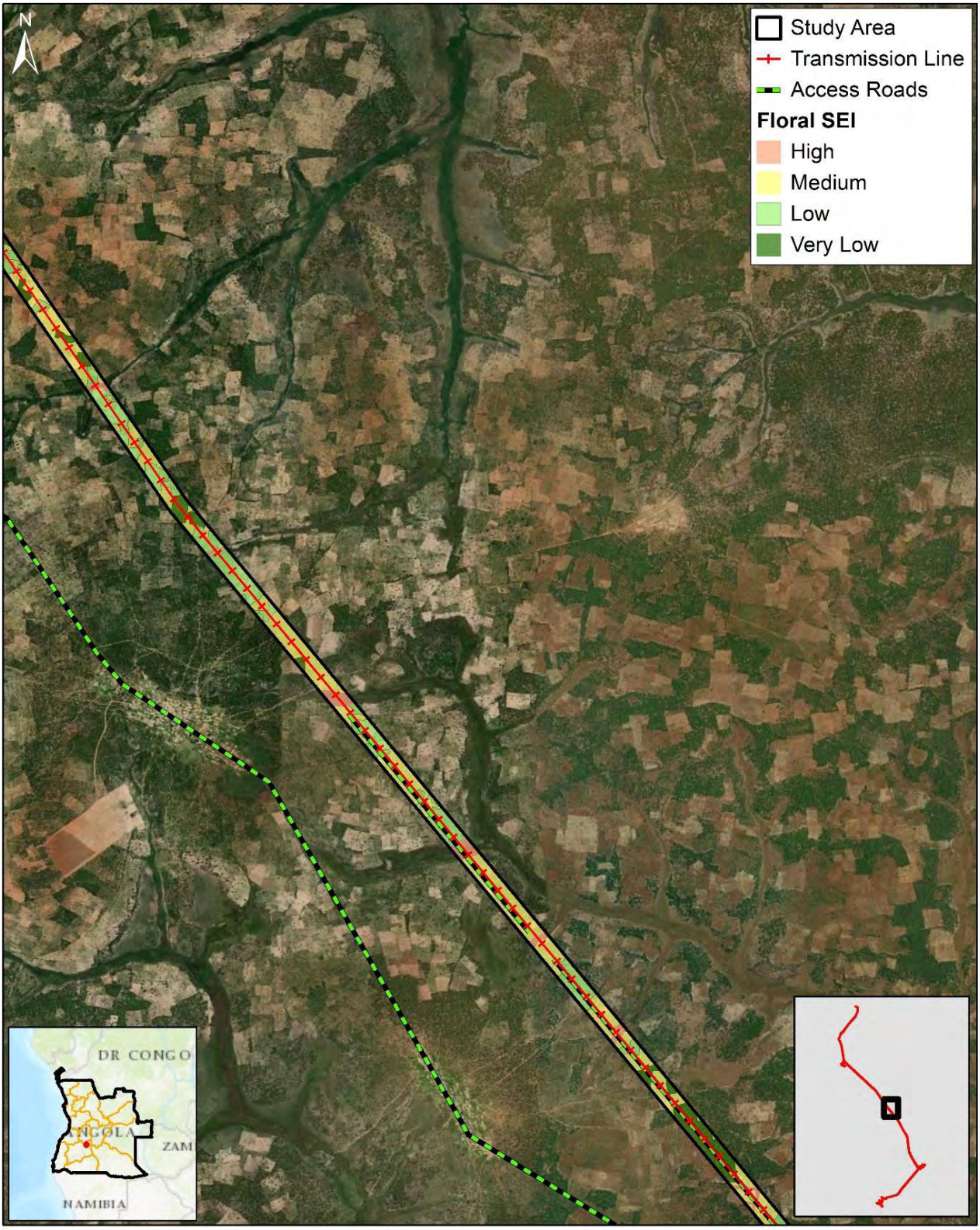


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



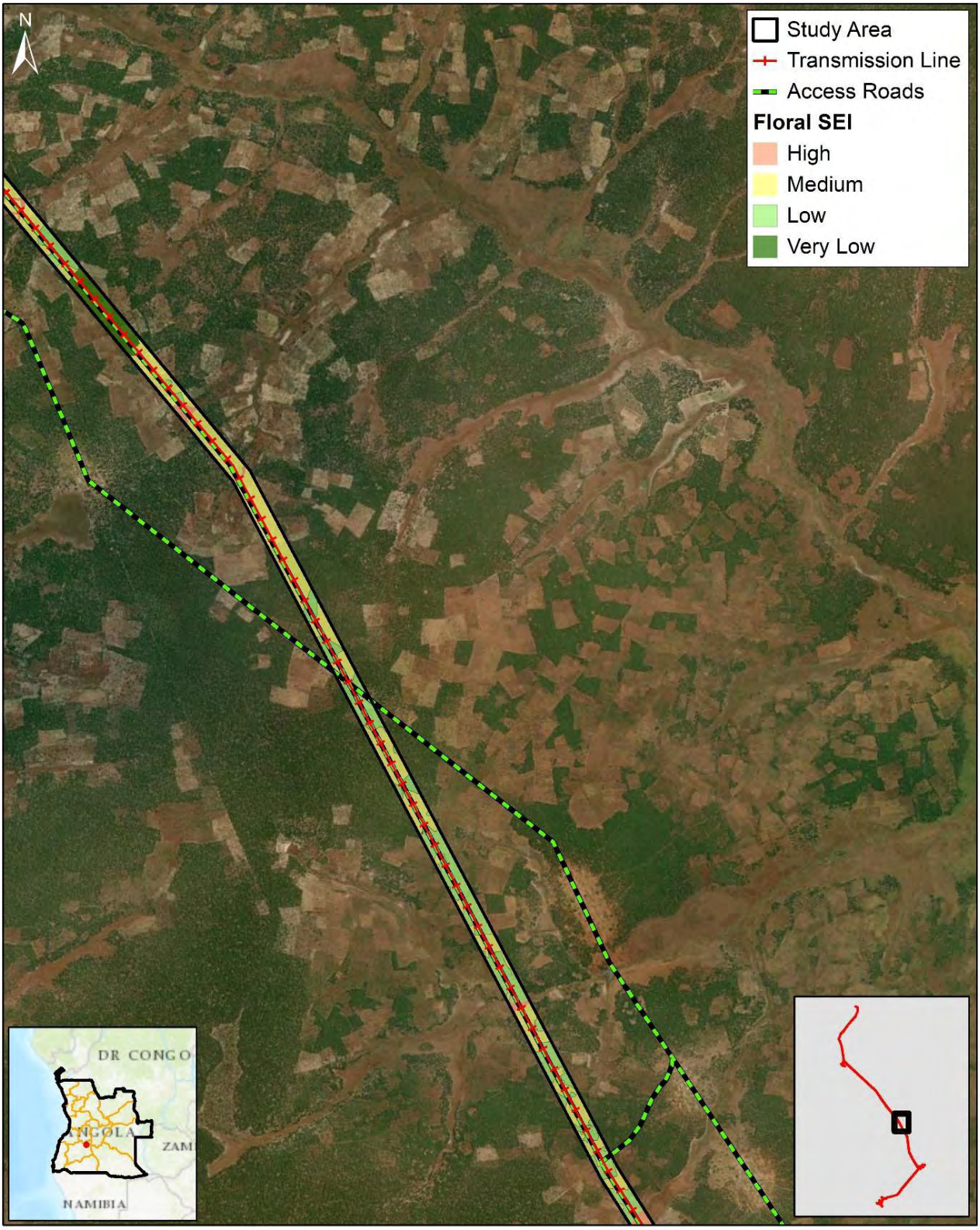
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

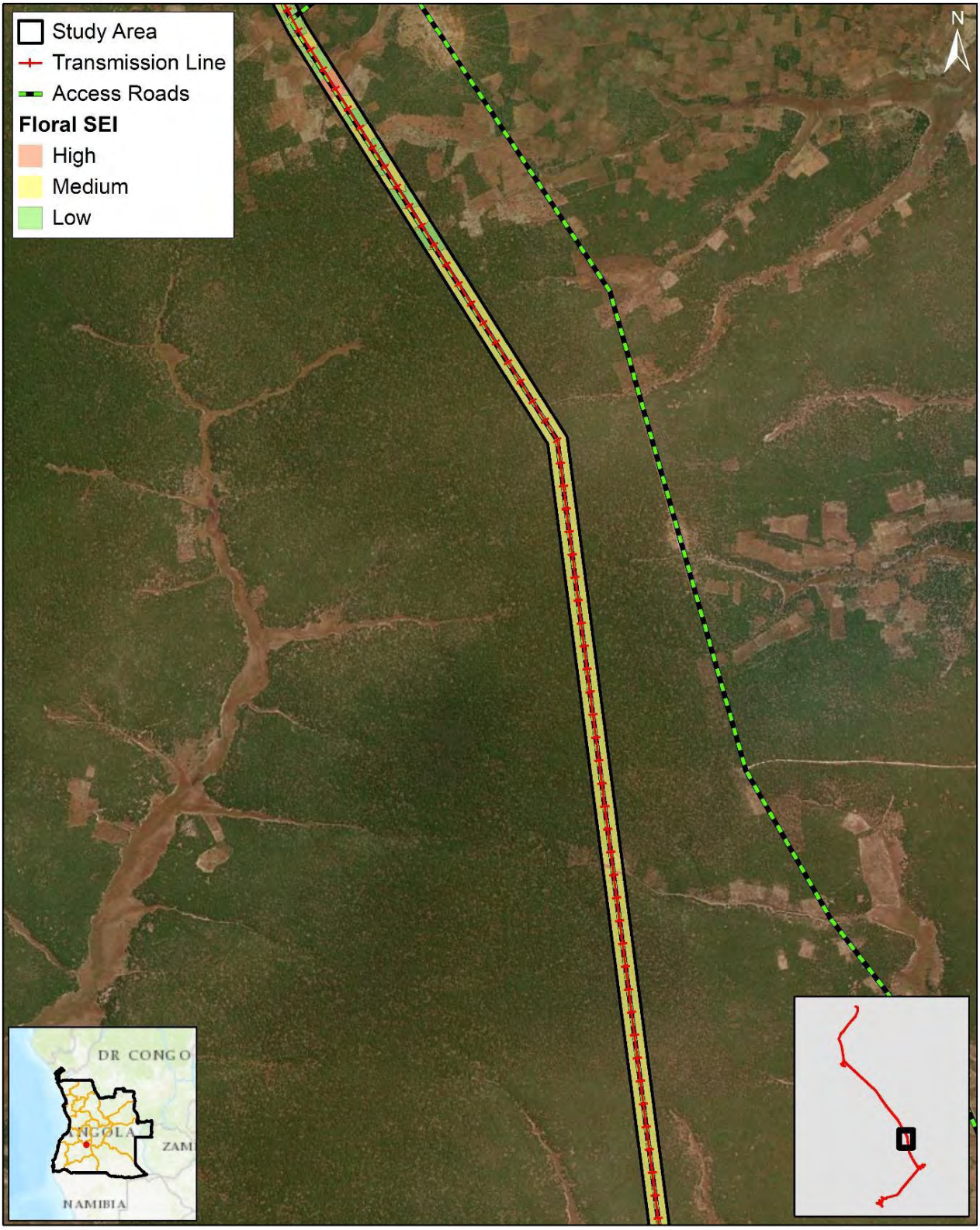


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

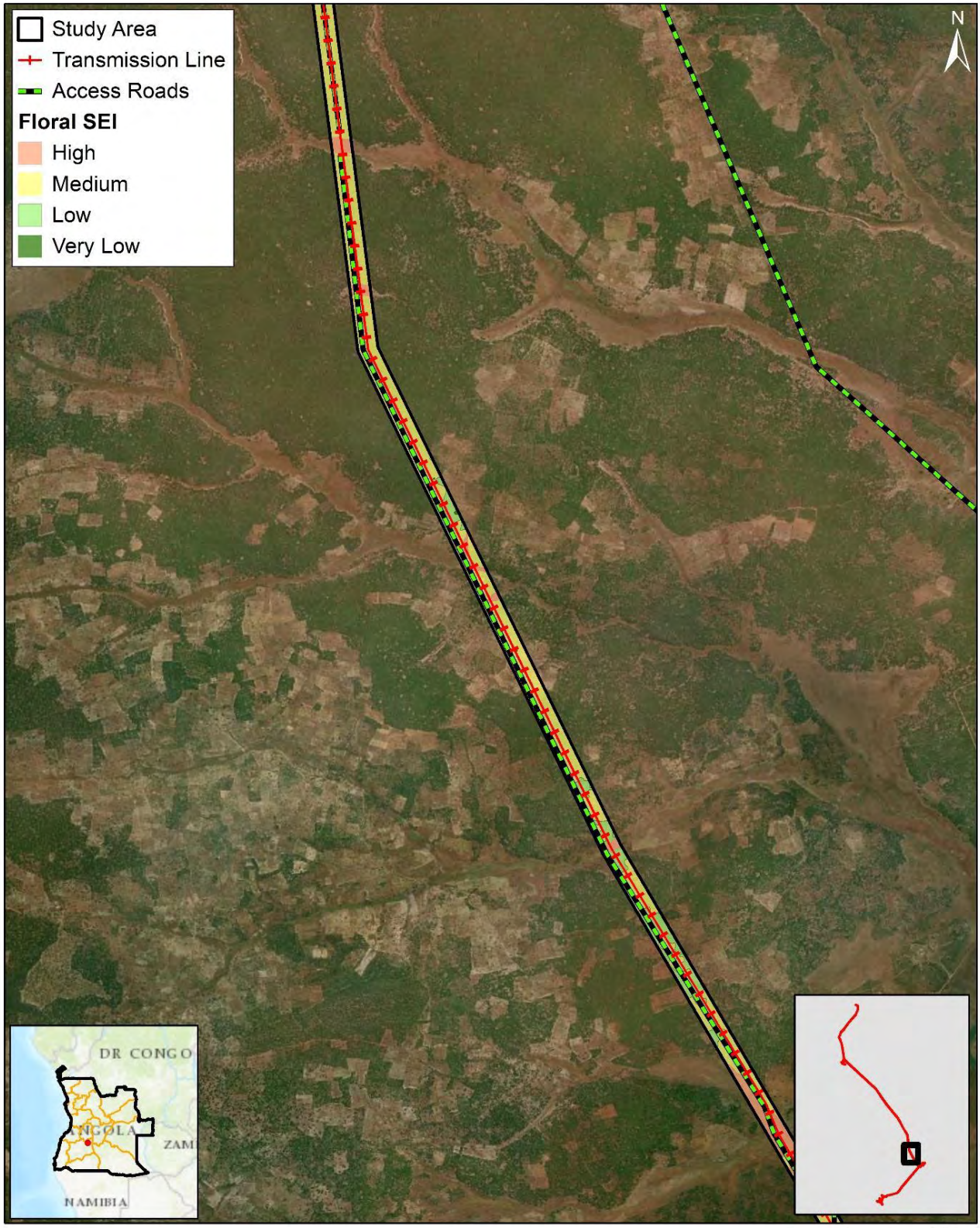


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



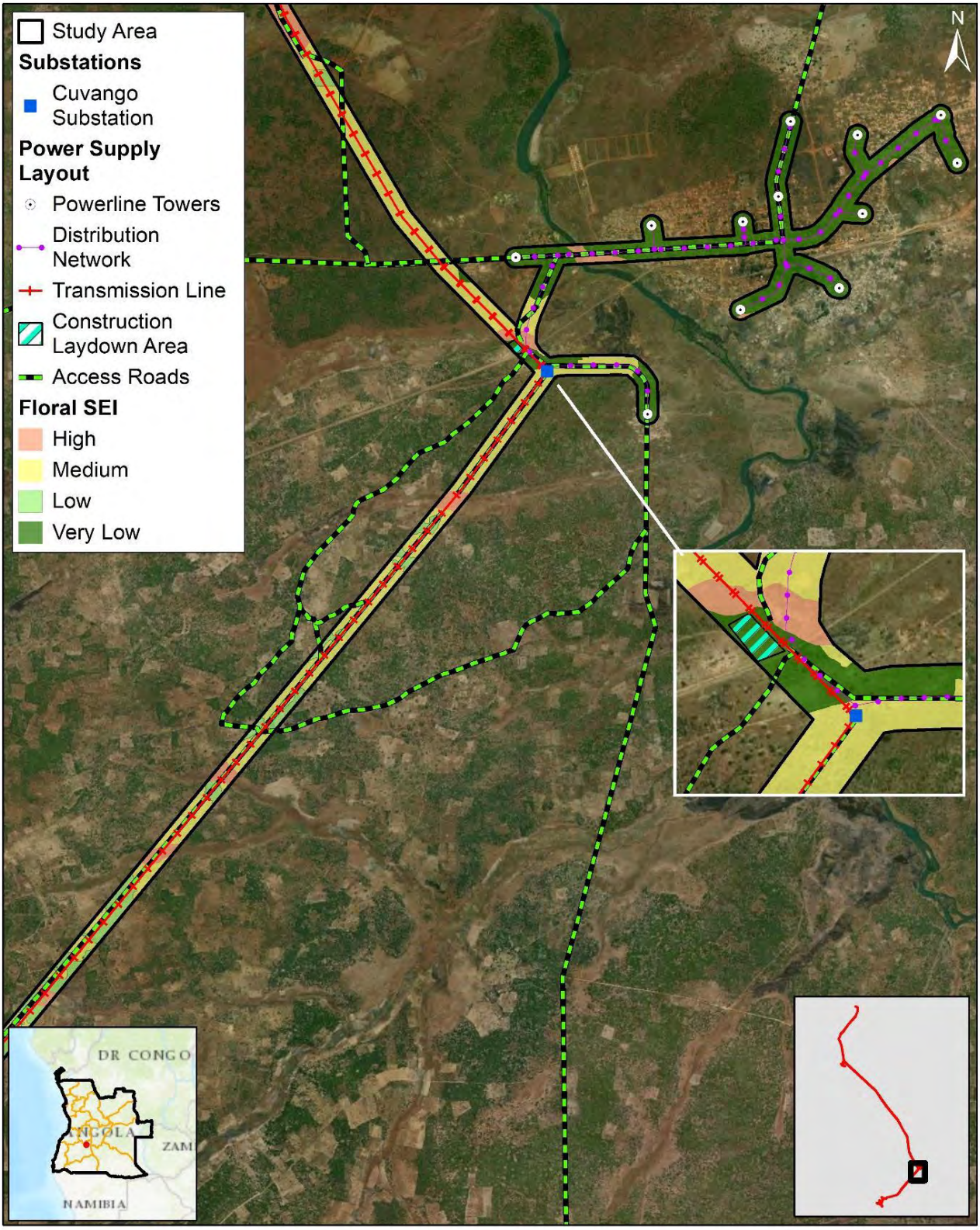
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

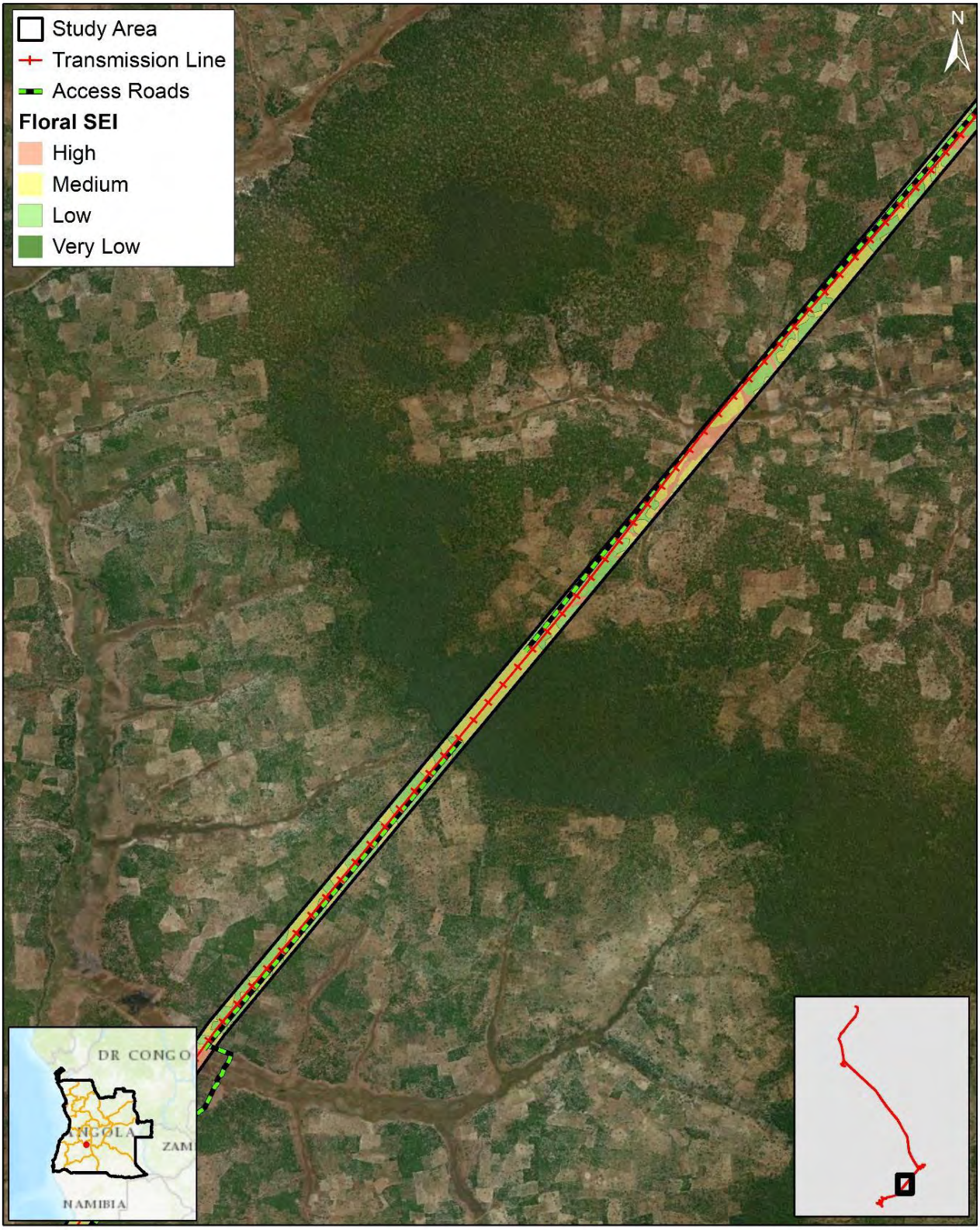


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



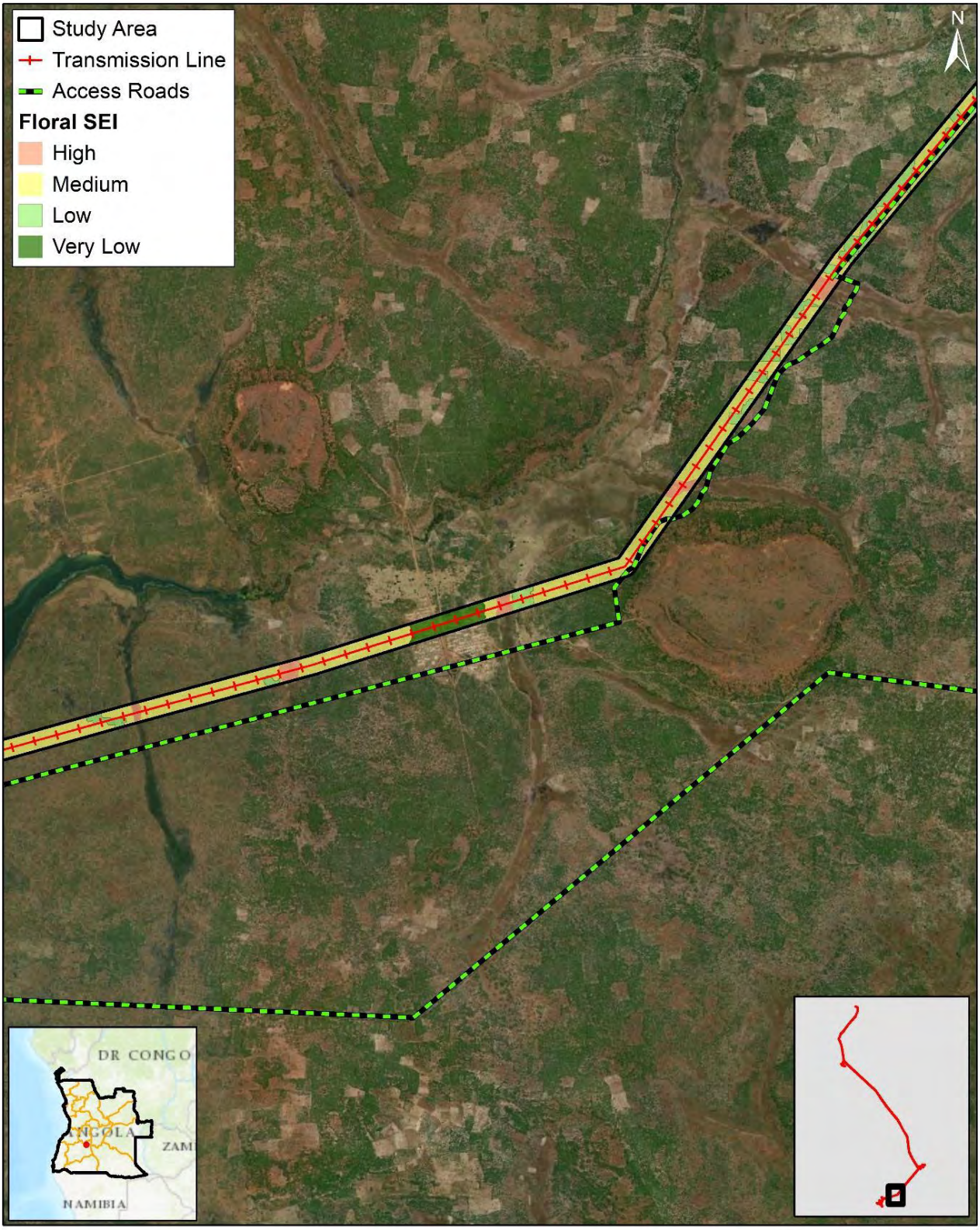
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

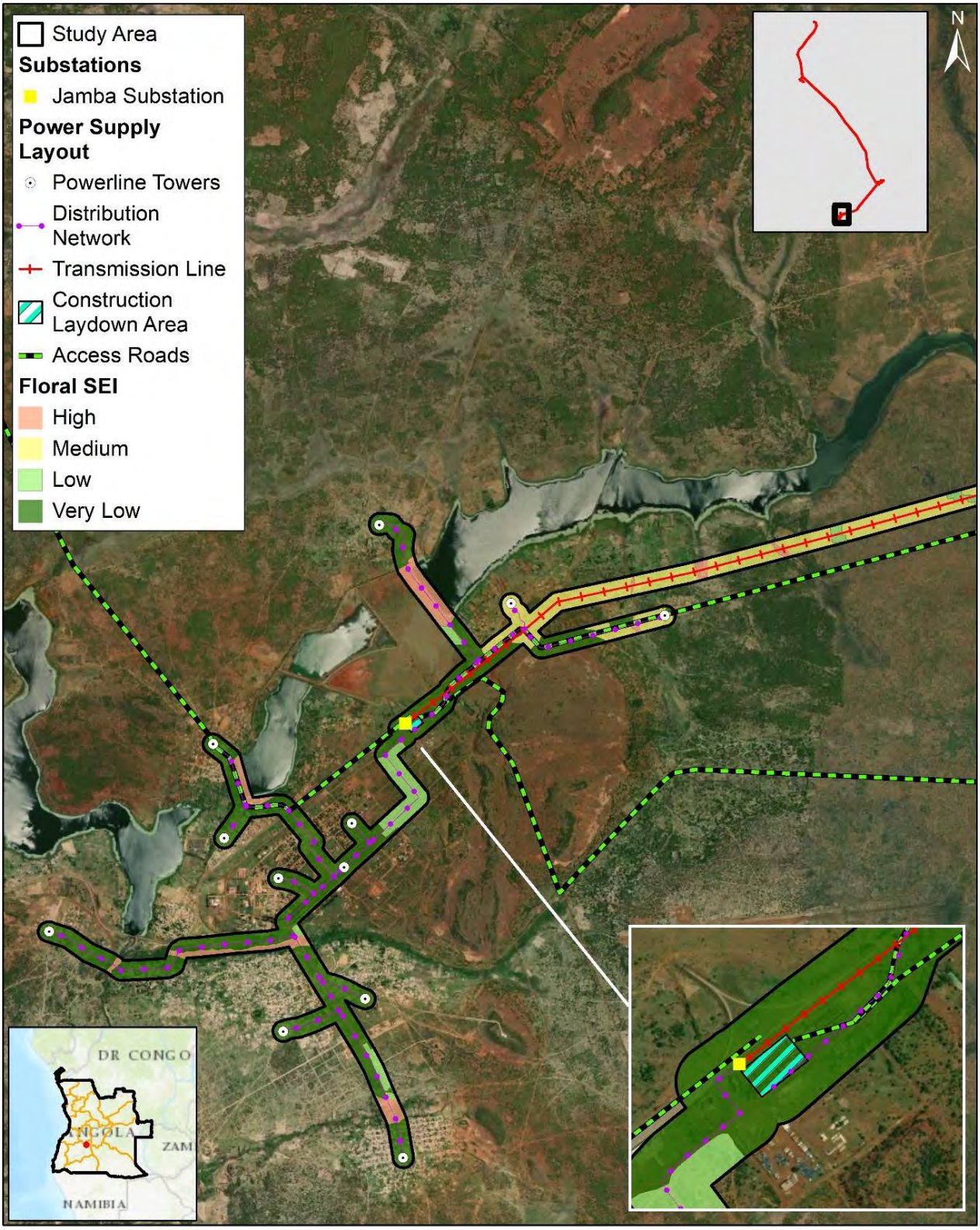


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



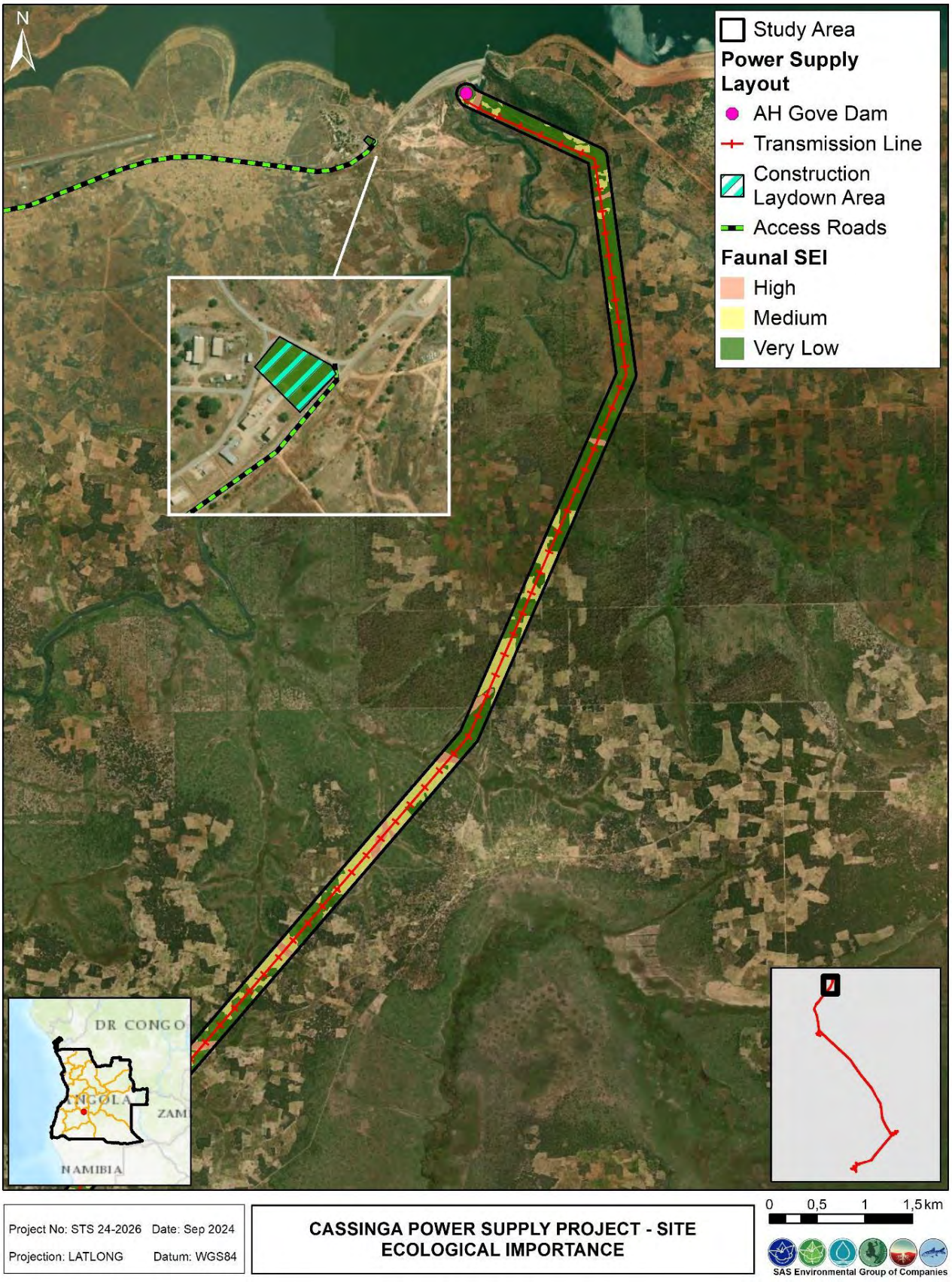
Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

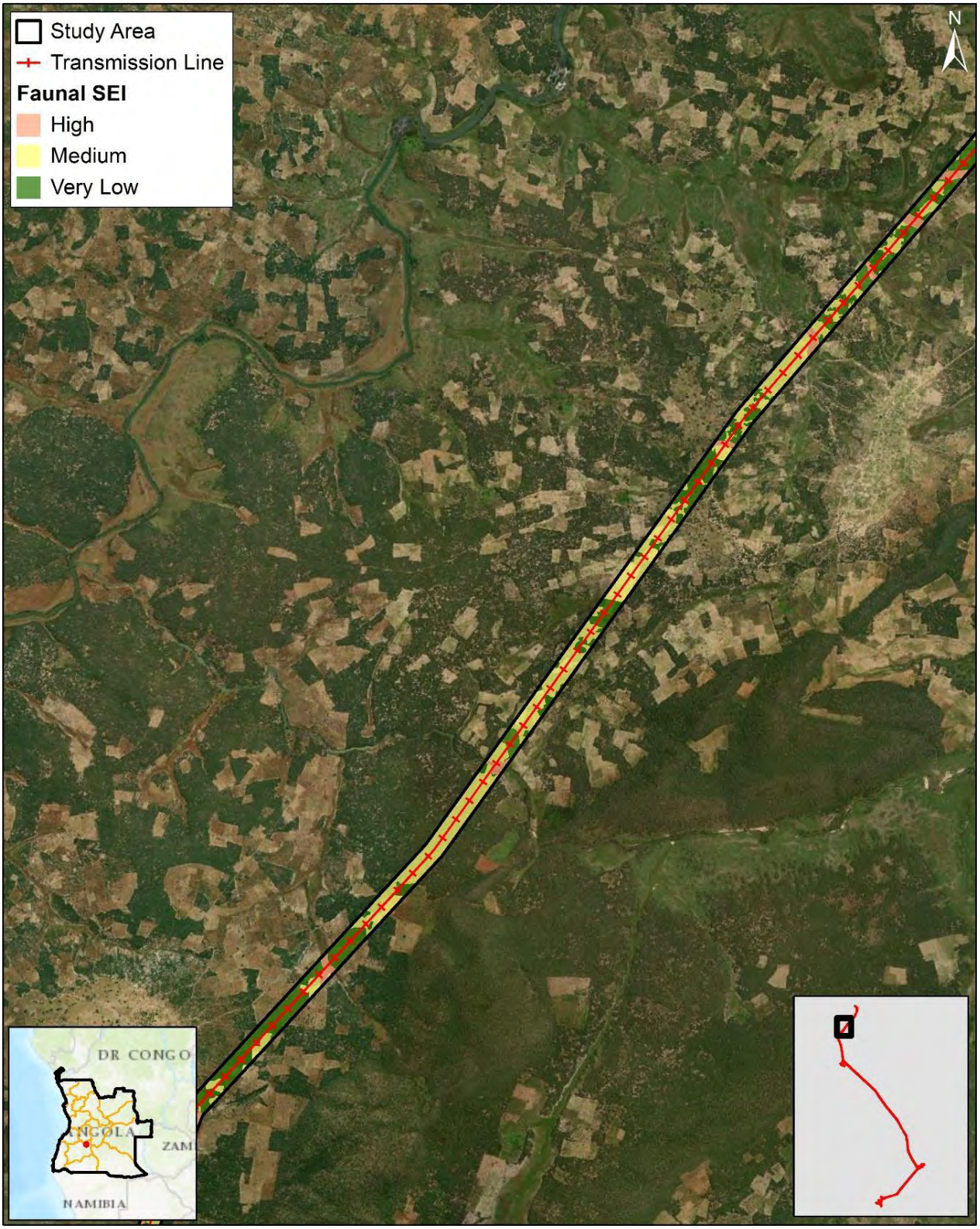
CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

Site Ecological Importance regarding the **faunal** habitat within the study area





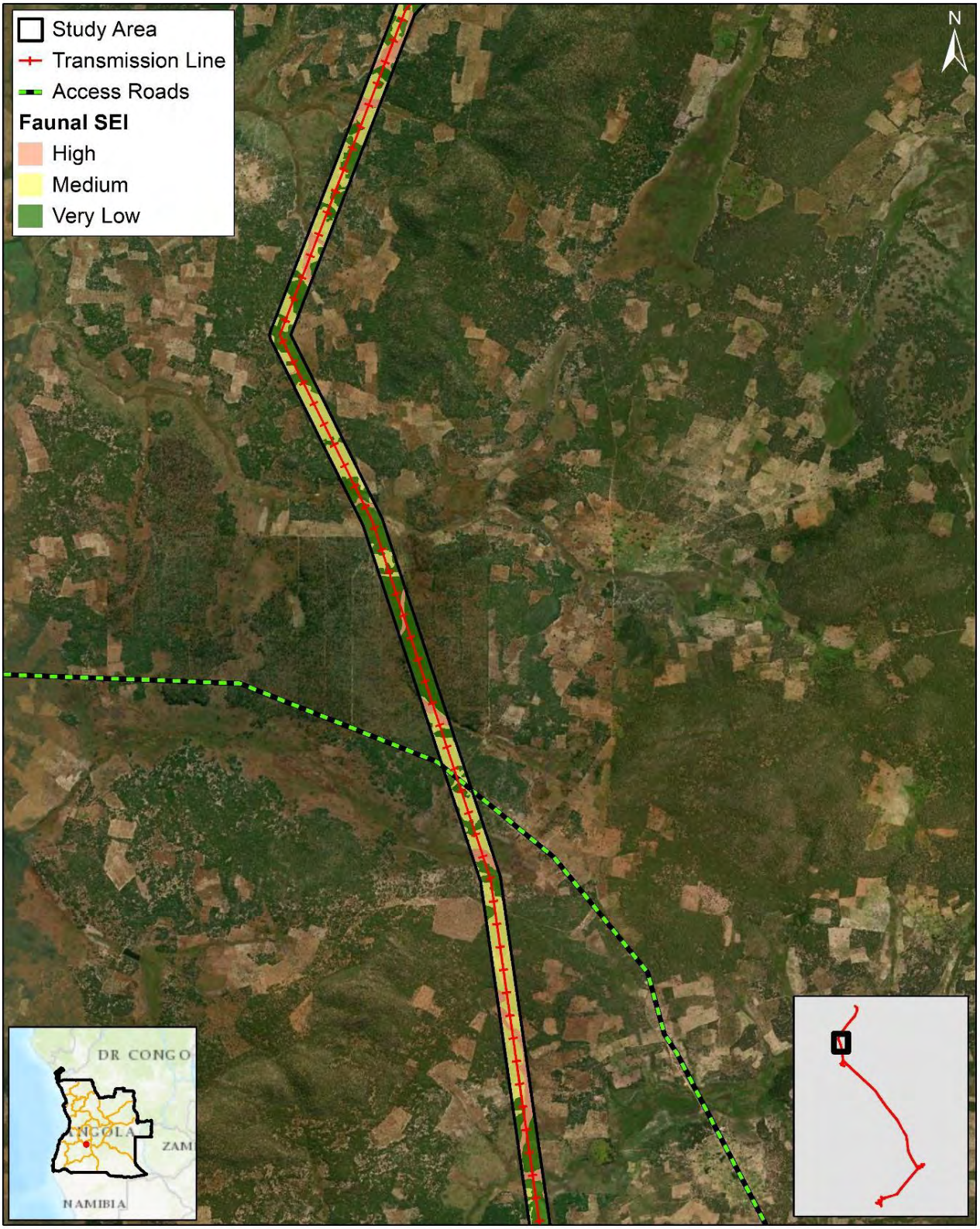
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

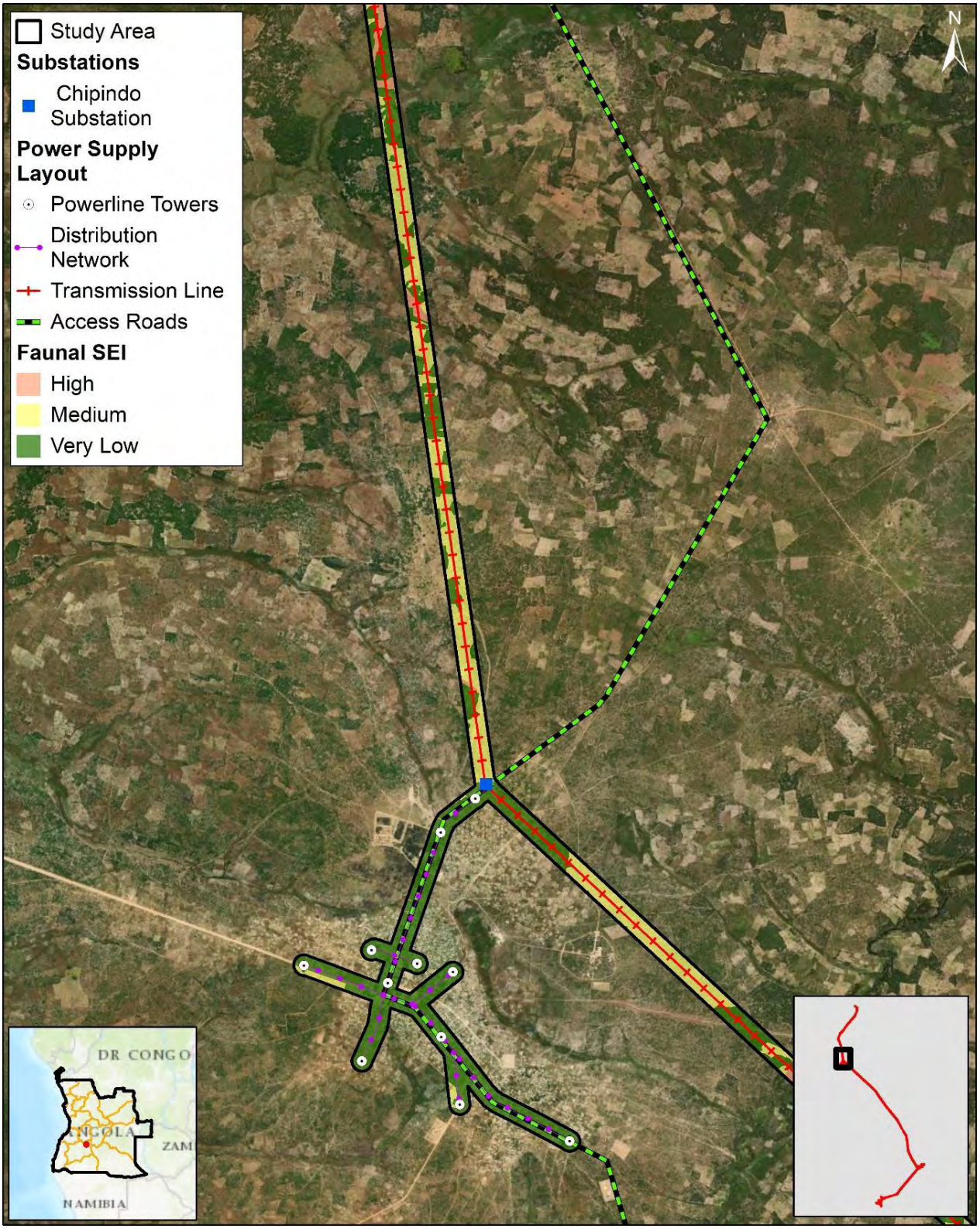


Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

SAS Environmental Group of Companies



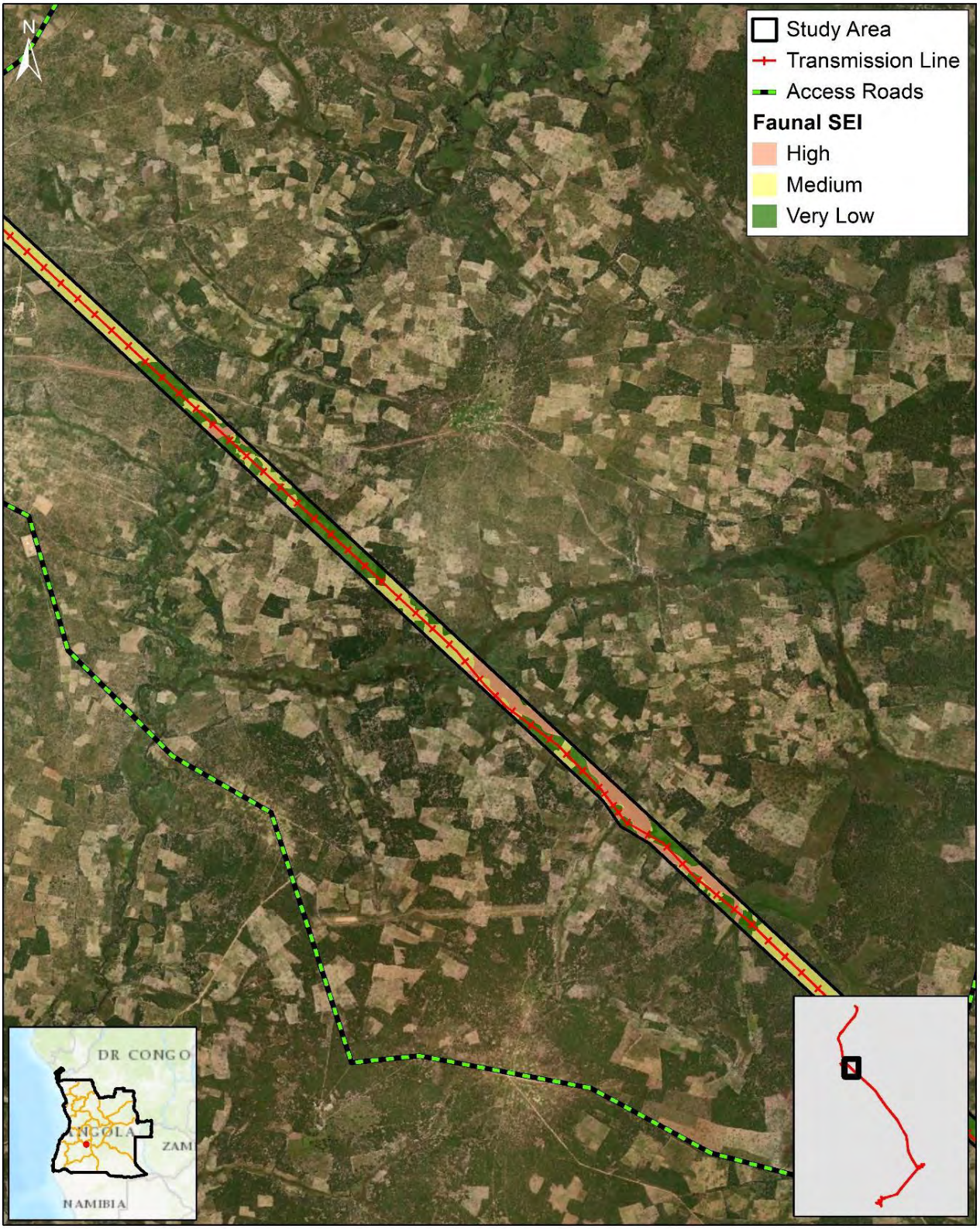
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

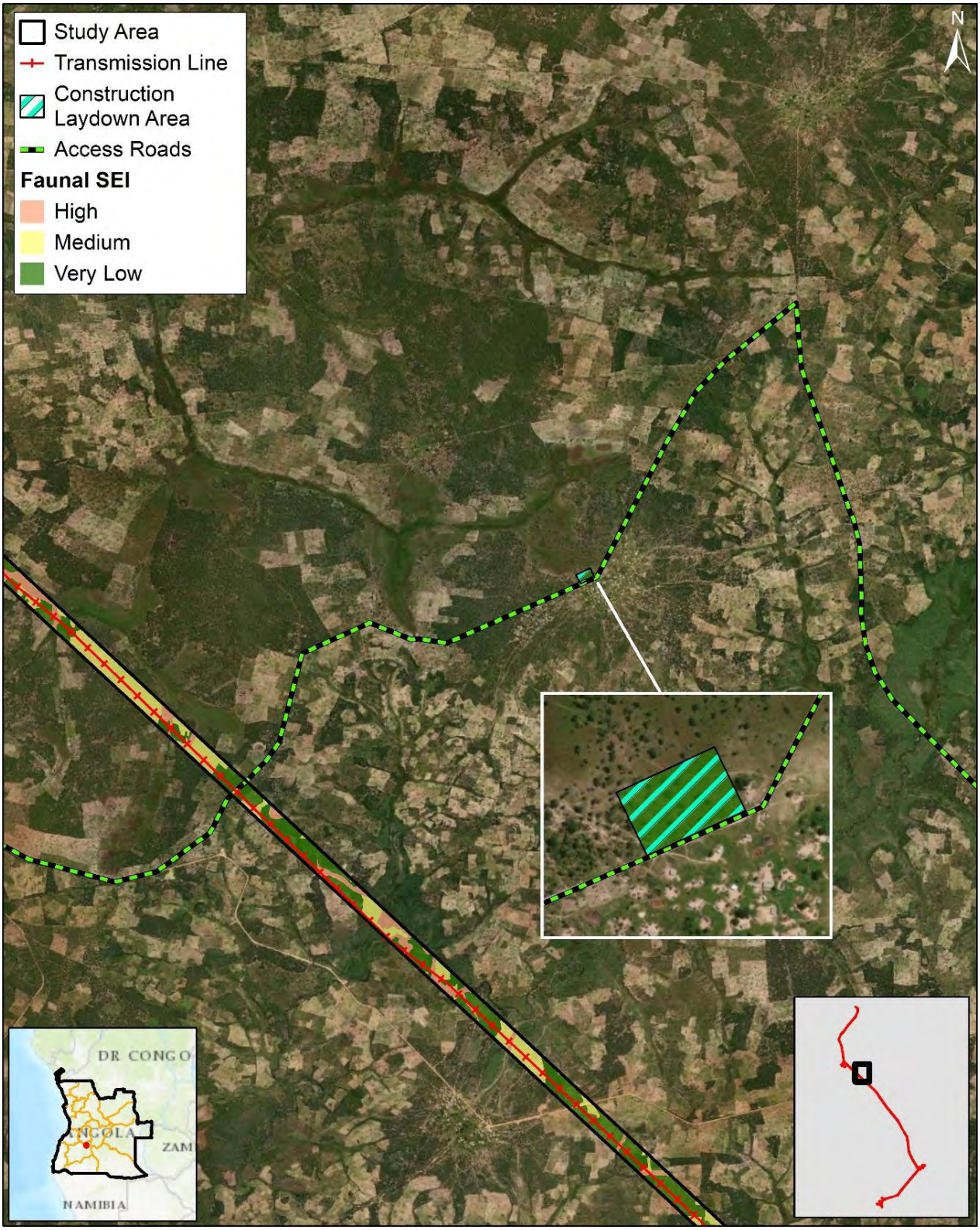


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

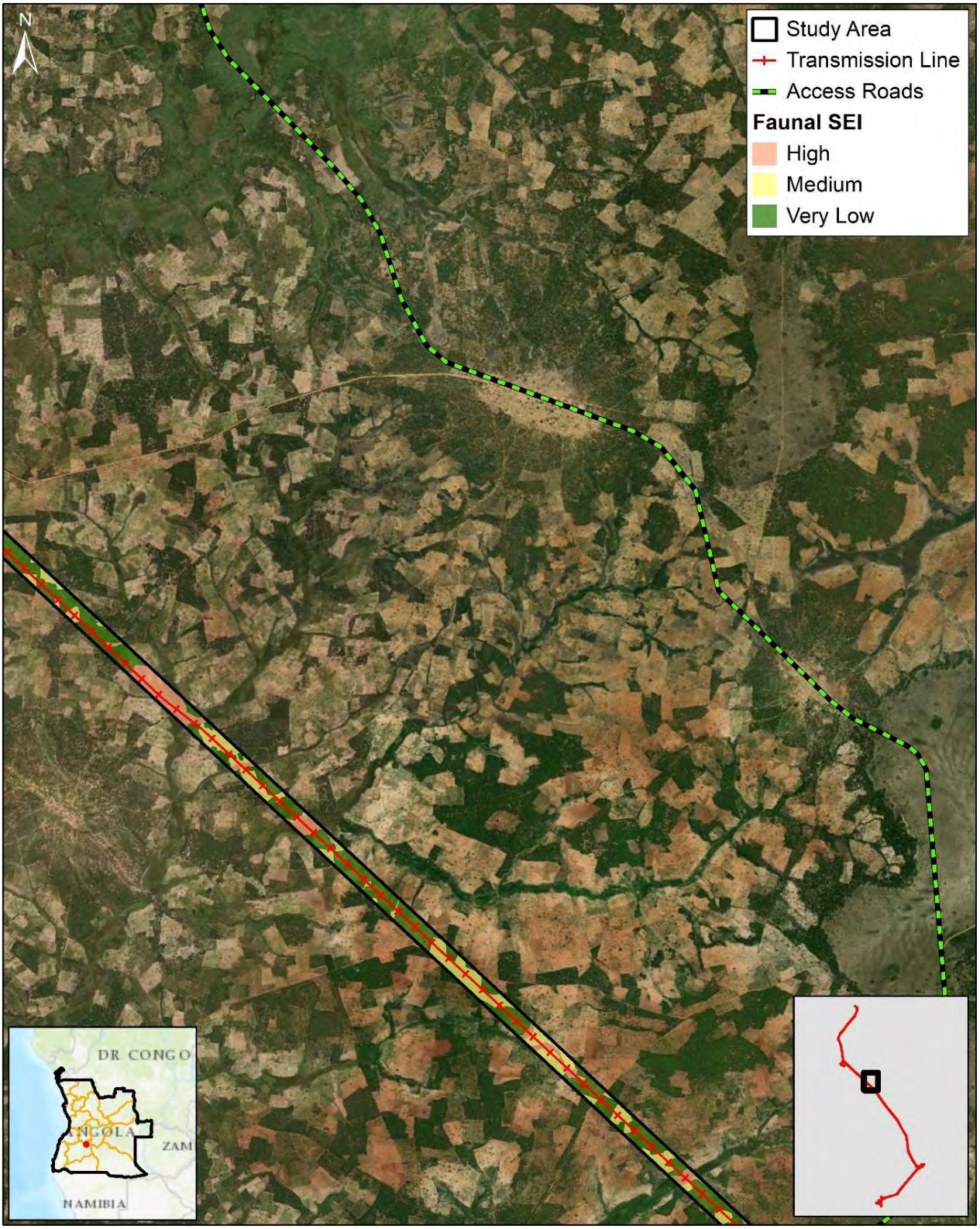


Project No: STS 24-2026 Date: Sep 2024
Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



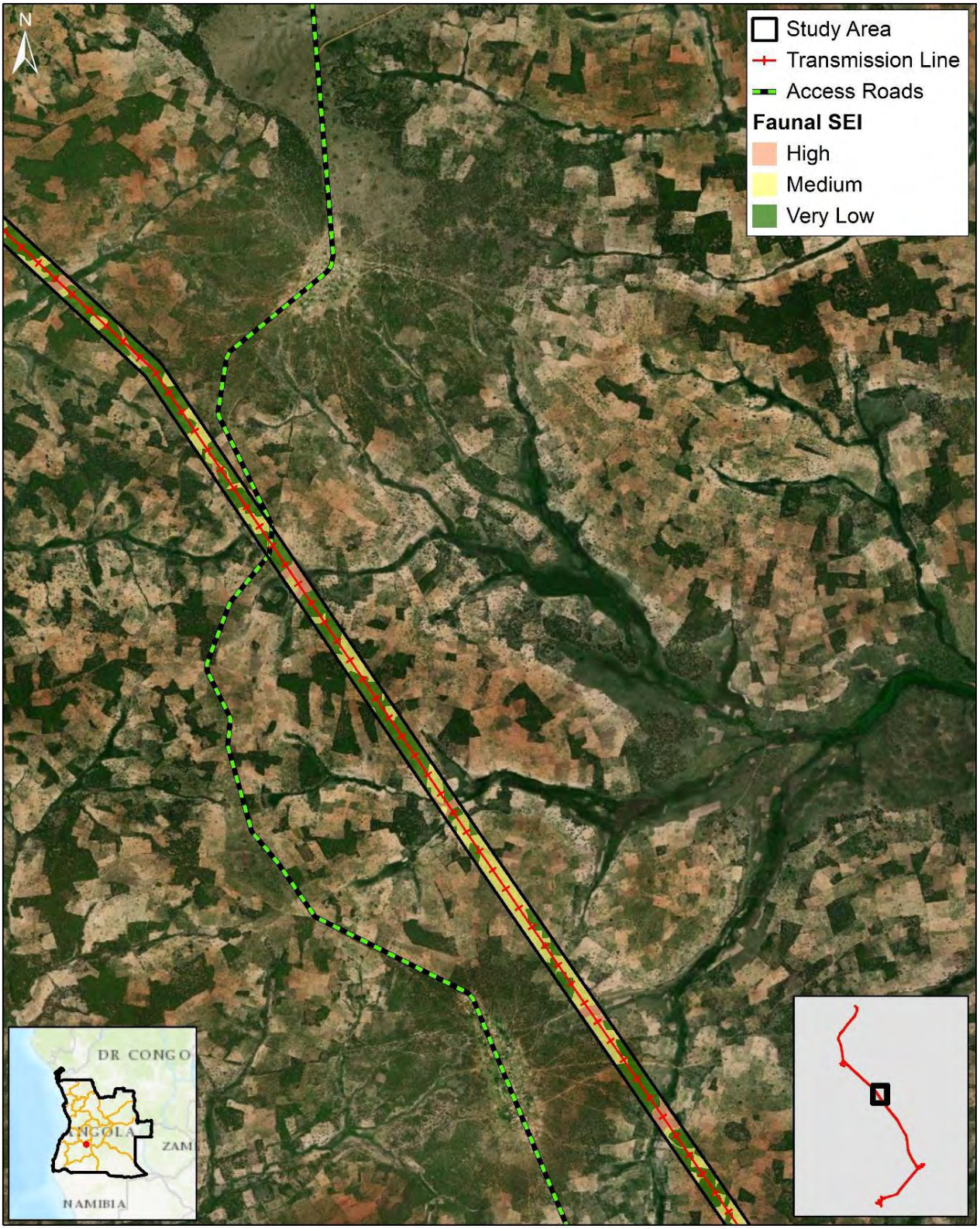
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



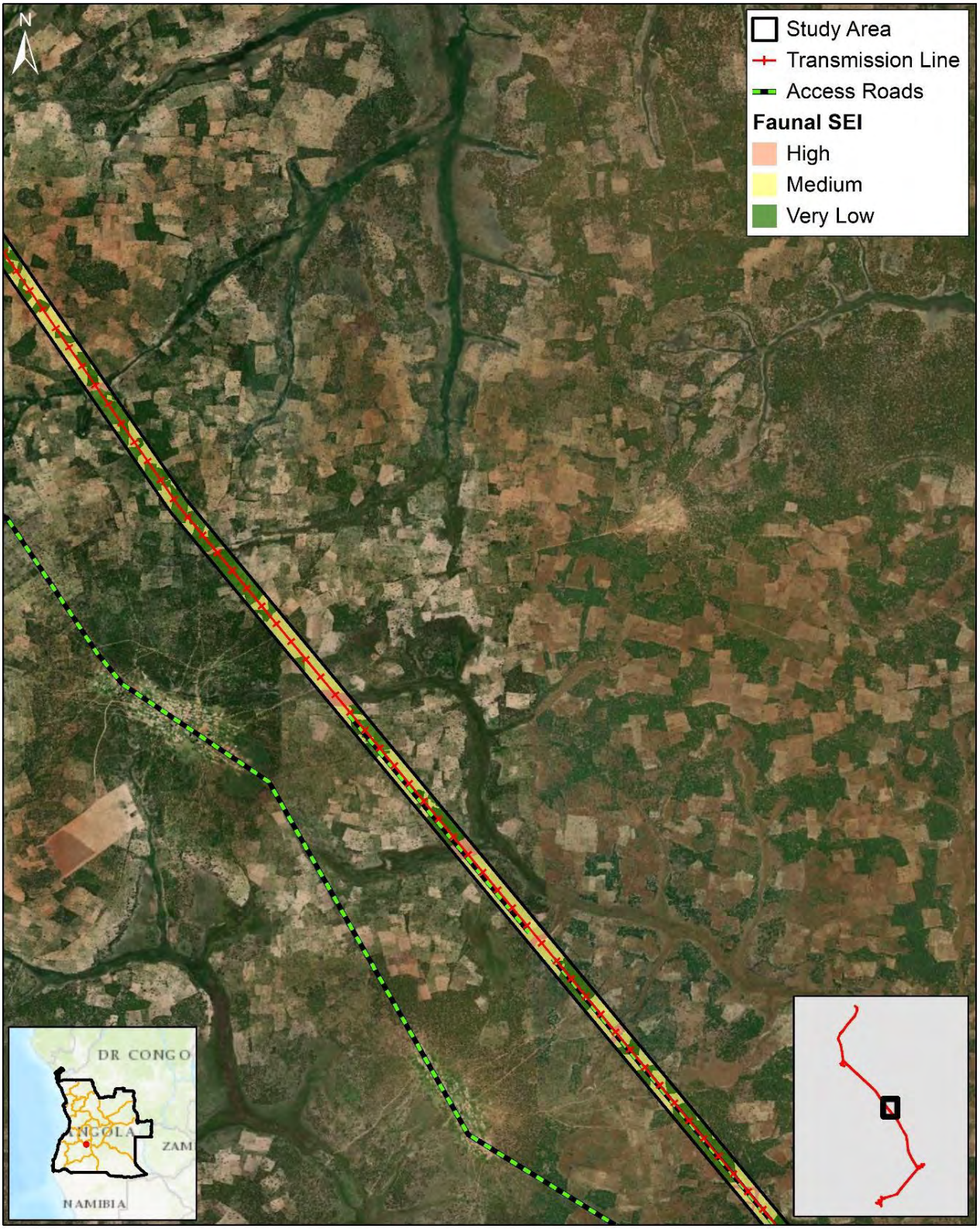
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



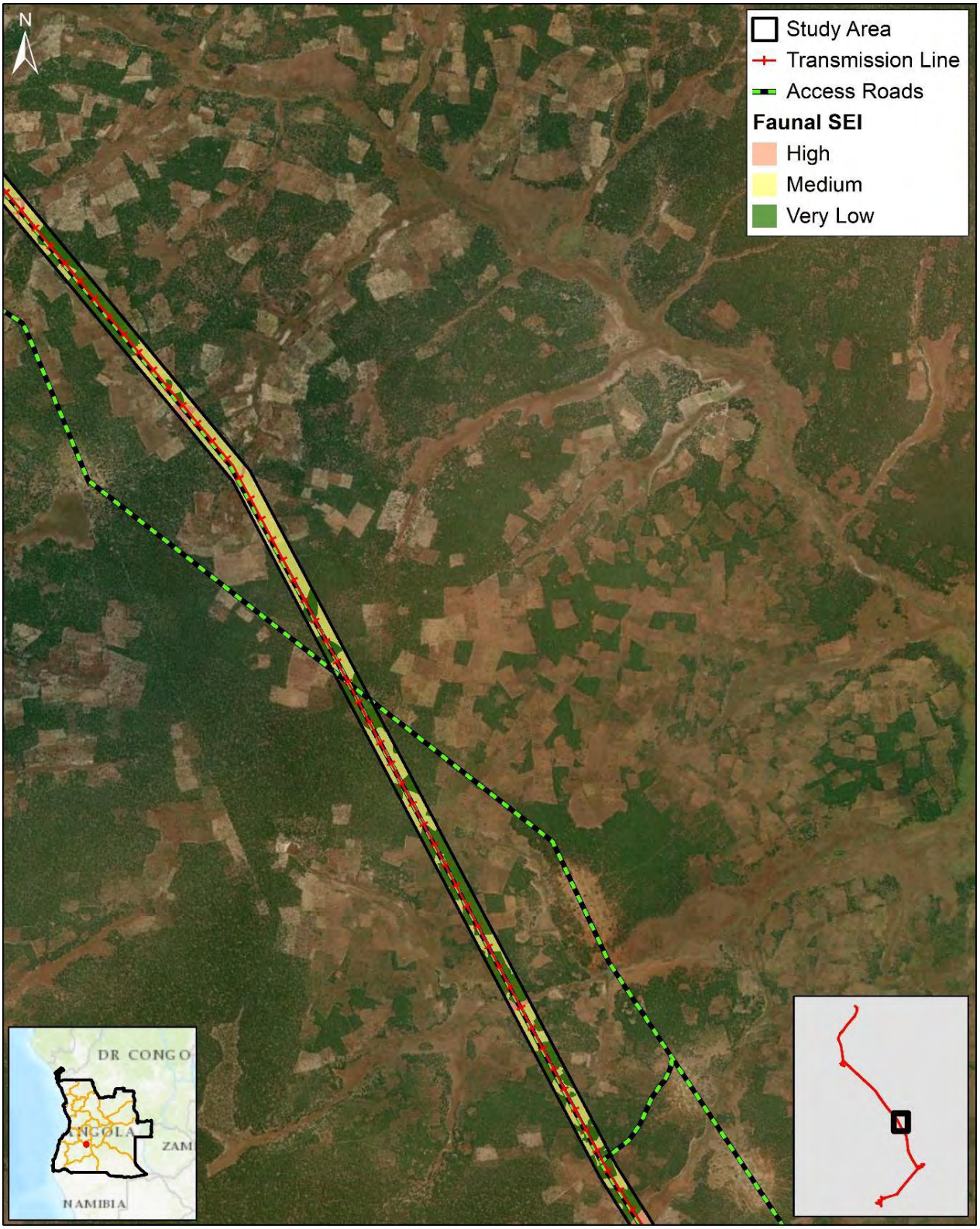
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



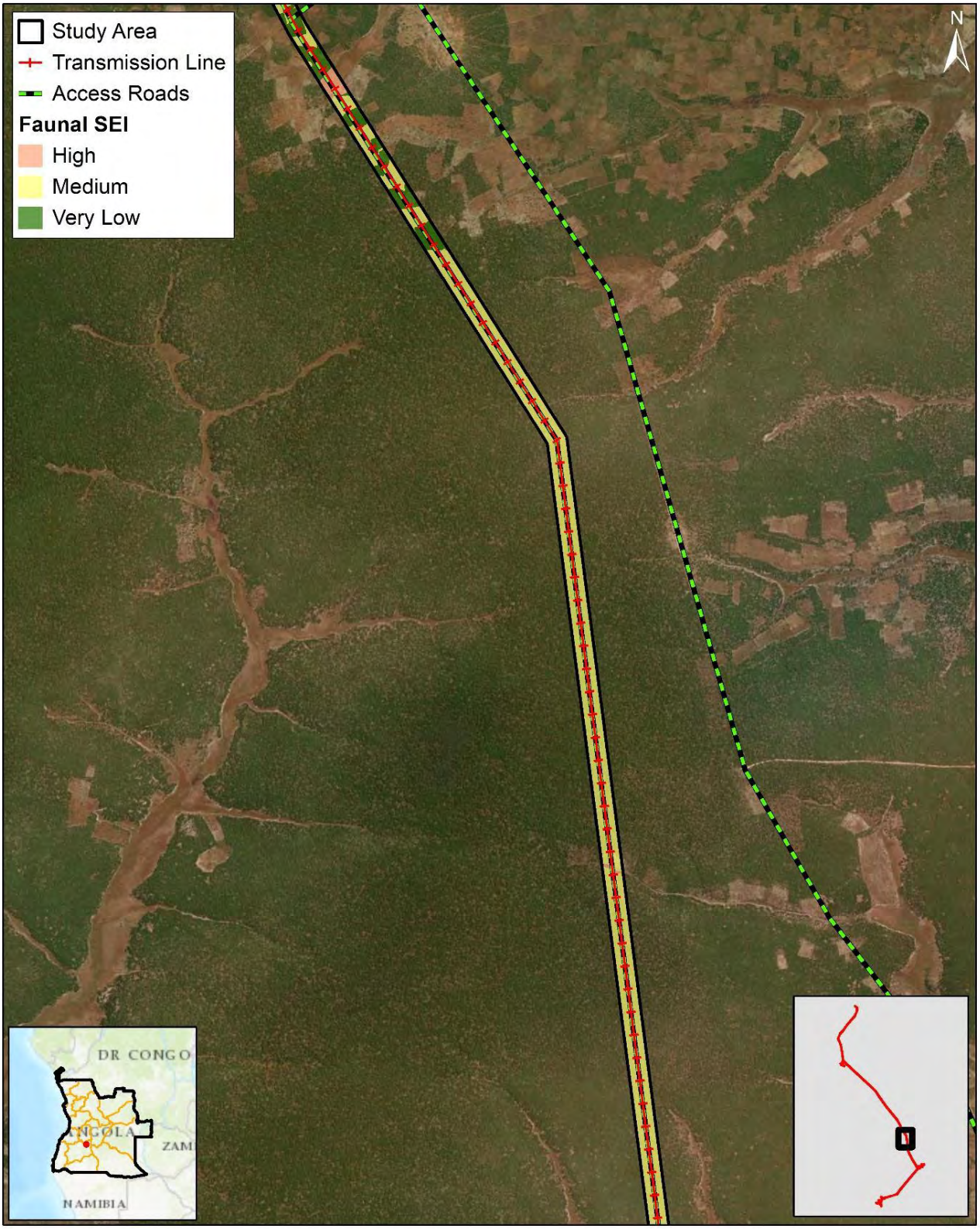
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



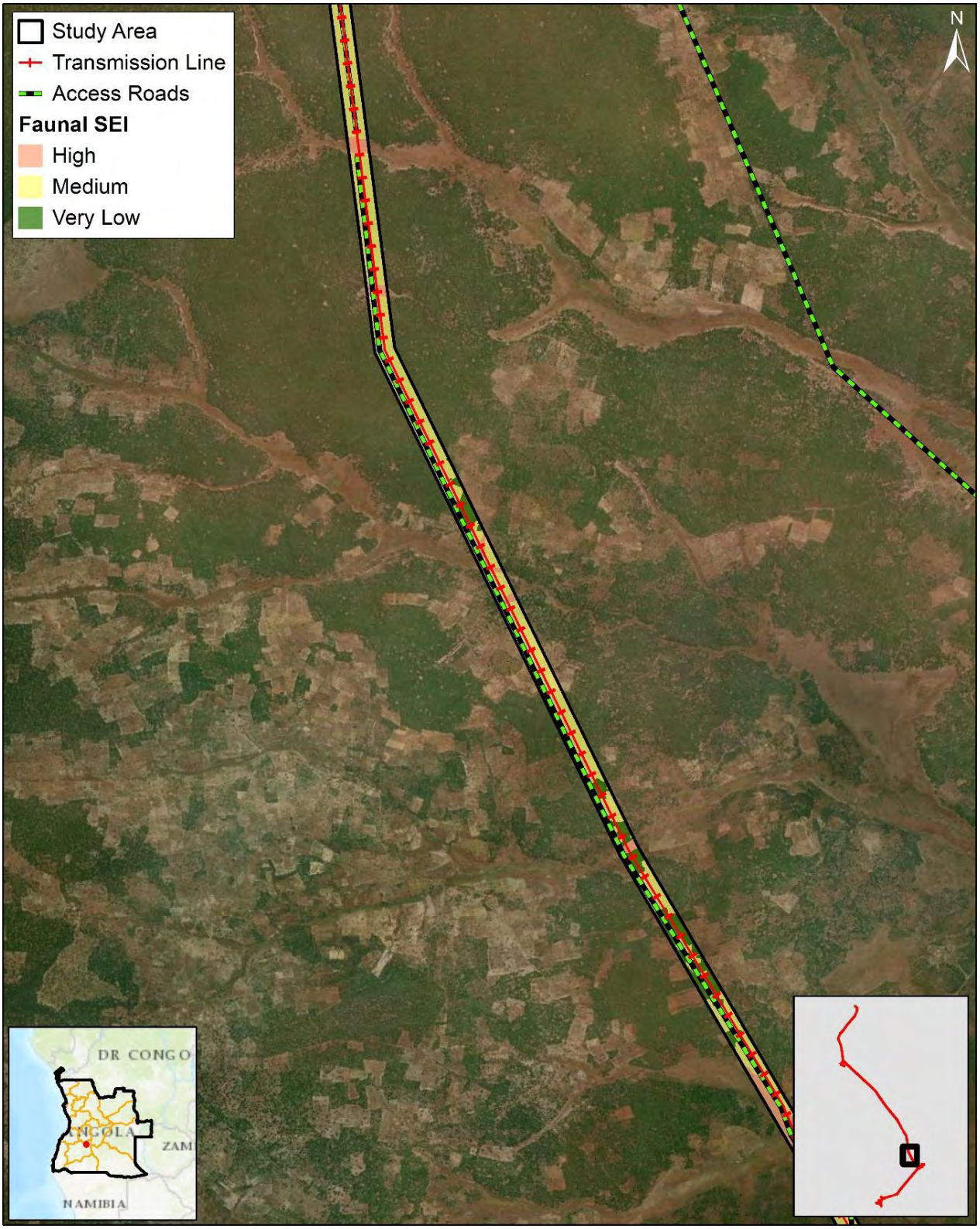
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



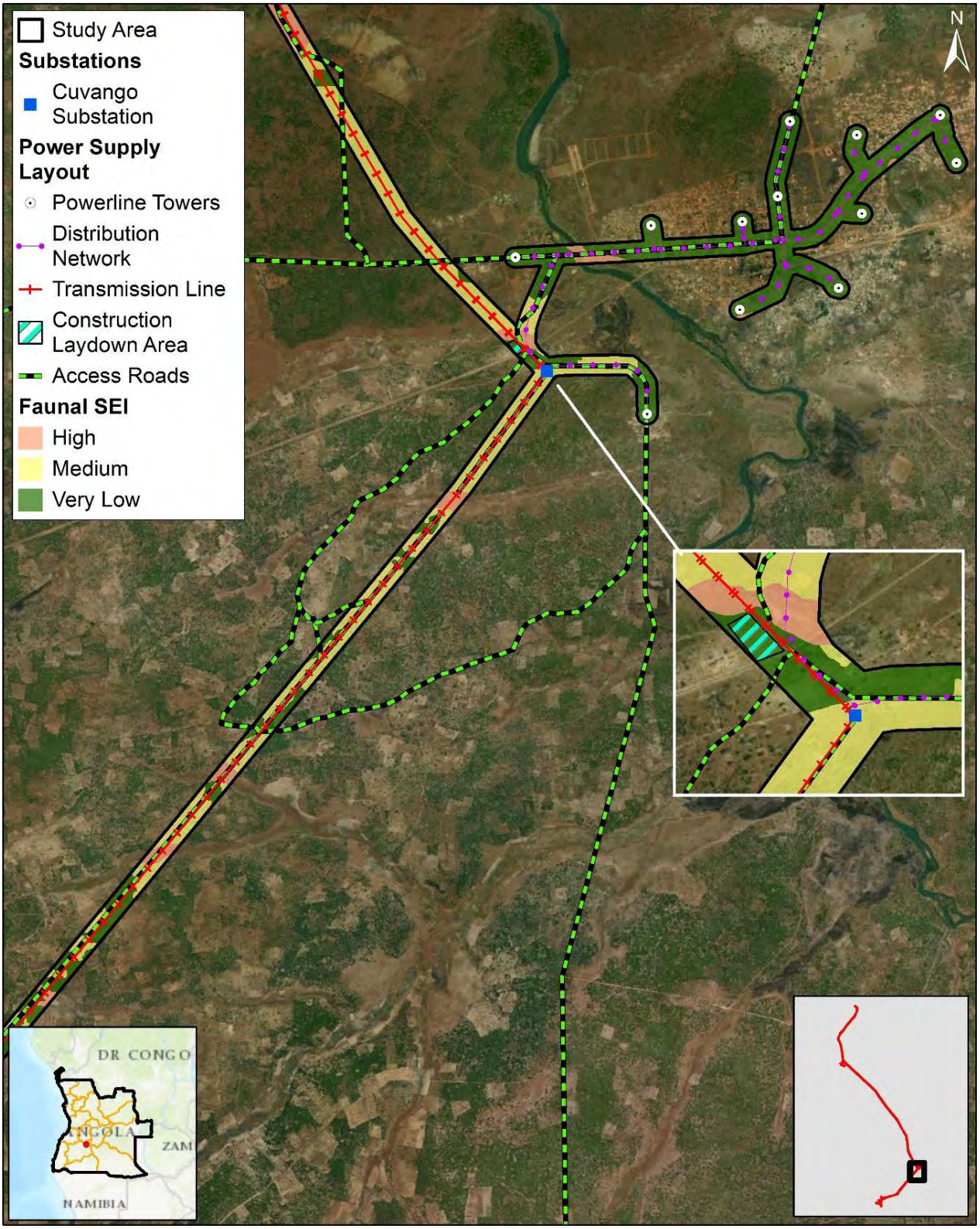
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies



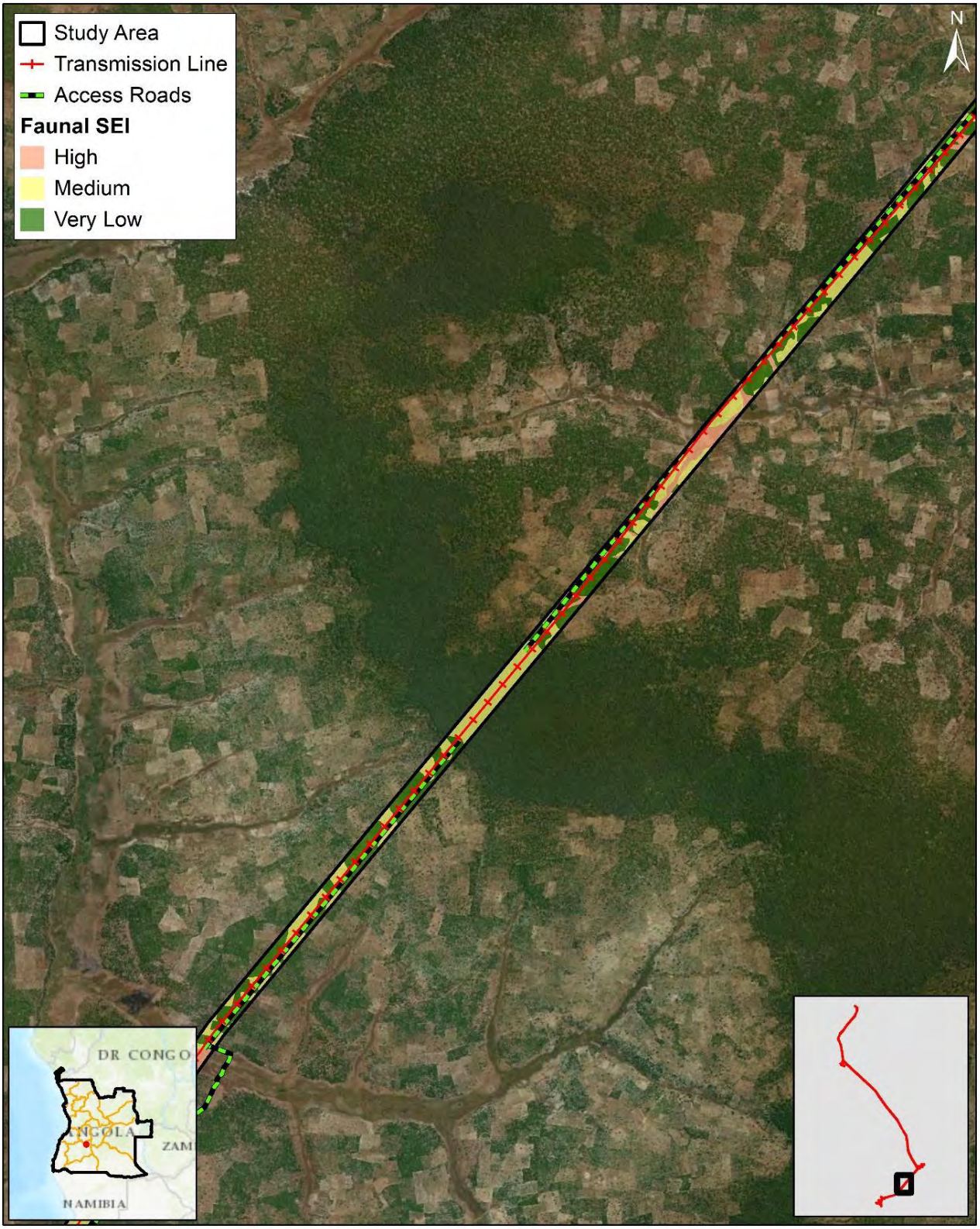
0 0,5 1 1,5 km

SAS Environmental Group of Companies

Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE



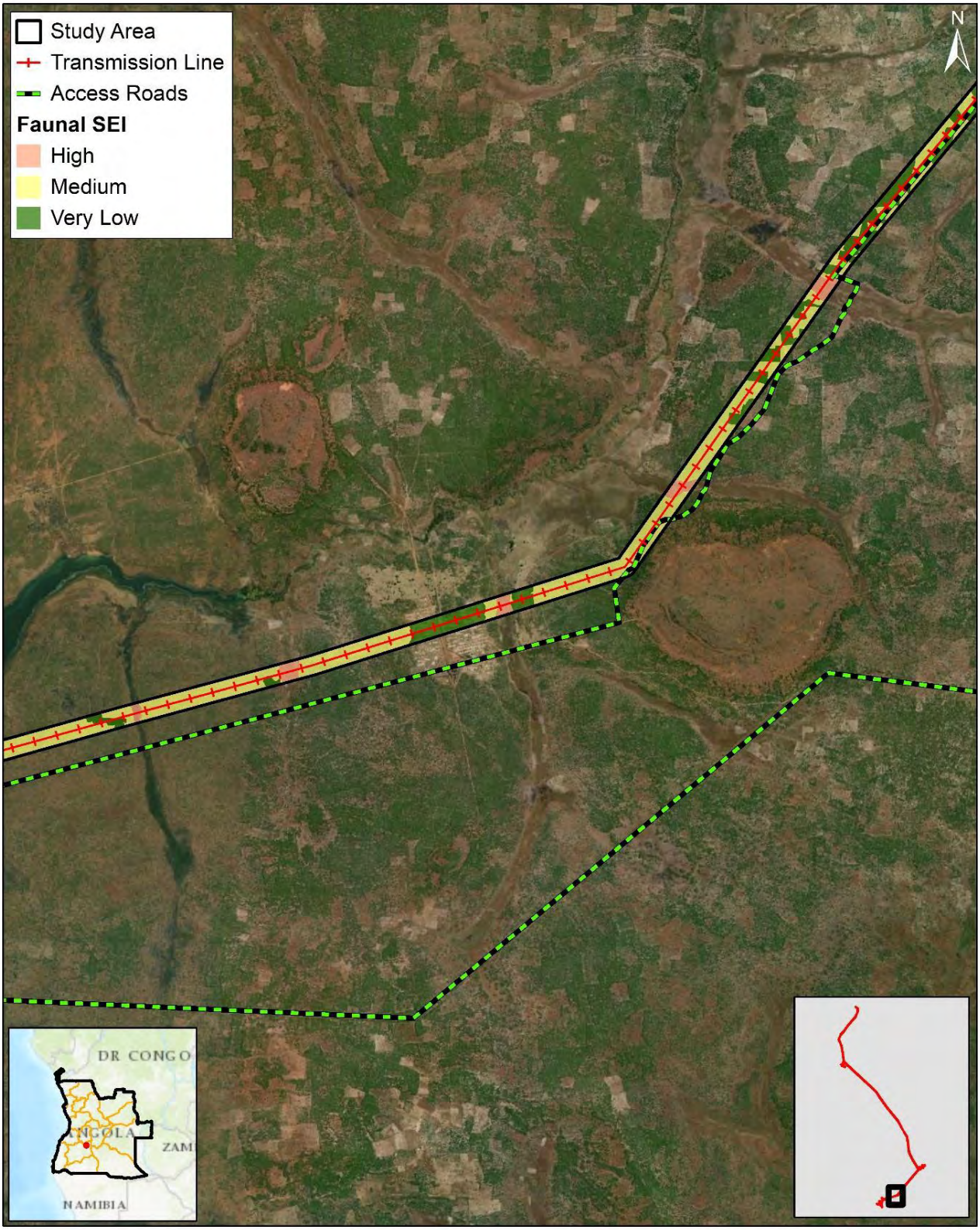
Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

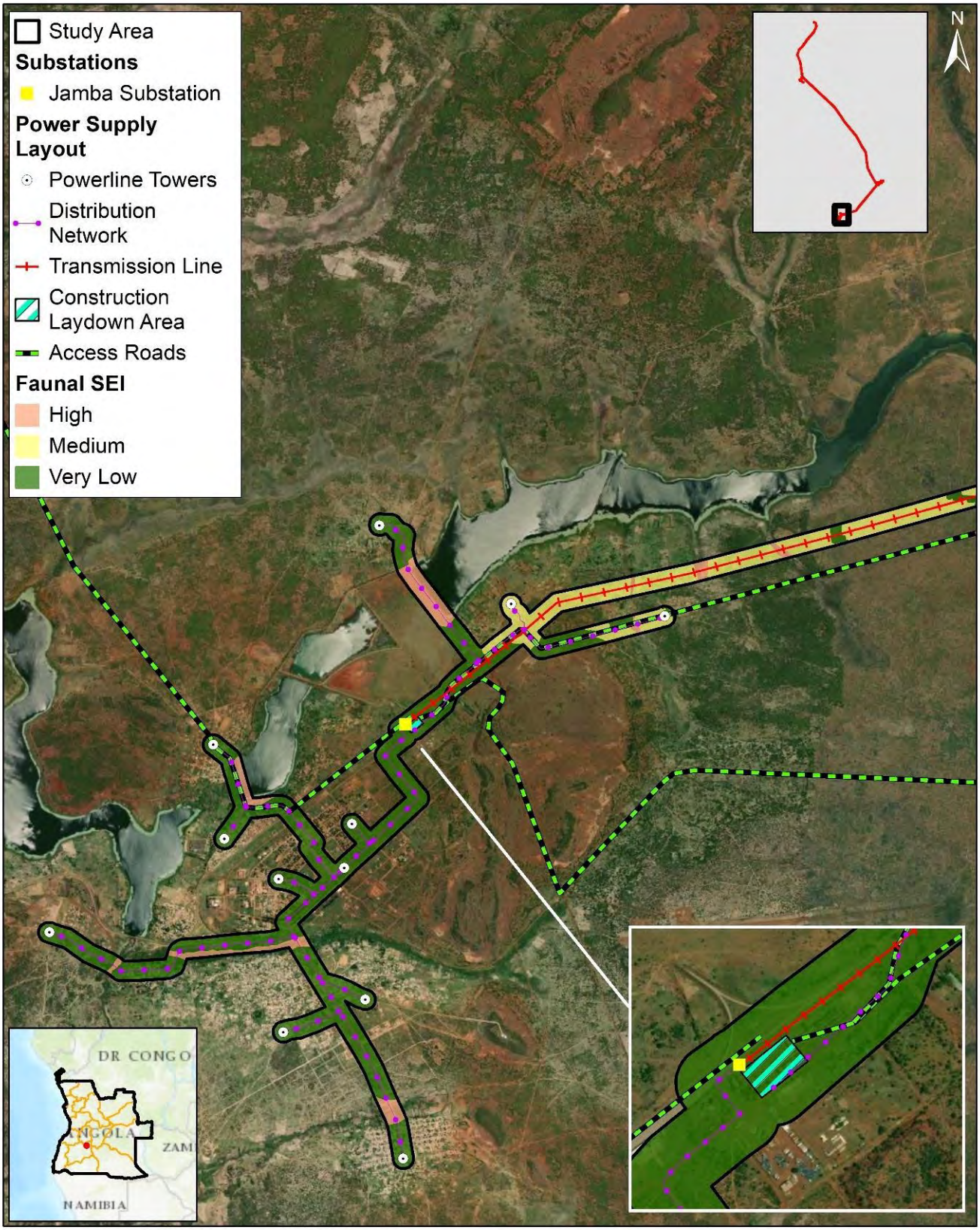


Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

SAS Environmental Group of Companies



Project No: STS 24-2026 Date: Sep 2024

Projection: LATLONG Datum: WGS84

CASSINGA POWER SUPPLY PROJECT - SITE ECOLOGICAL IMPORTANCE

0 0,5 1 1,5 km

SAS Environmental Group of Companies

Appendix F: Socio-economic finds from villages

Appendix F – Findings from surveyed villages/communities

Village/ Neighbourhood	Description	Population and ethnic groups	Livelihoods and income	Housing, sanitation and infrastructure	Health and education	Ecosystem goods and services	Culture and leisure
Jamba Municipality							
Cacola	• Cacola is one of the oldest neighborhoods in the municipality of Jamba, established in 1974. • The local soba grande (traditional leader) is Mr. Anibal Tsialo. • The traditional governance structure in Cacola is linked to the formal administrative structure.	• The estimated population of Cacola is 19 051 people, with family sizes ranging from two to twelve occupants. • The community is predominantly Christian, with some men having multiple wives, contributing to larger family sizes. • The community comprises five ethnolinguistic groups: Nganguela, Umbundo (predominant), Kuanhama, Nhaneca-Nkhumbi, and Tchokue. Umbundu is the main language spoken...	• The main livelihood of the Cacola neighbourhood is farming, with additional income from trading agricultural products. • Households solely reliant on agricultural sales earn between 30 000 and 80 000 Kz/month. • Families often raise chickens, ducks, goats, oxen, and cows for subsistence, consuming meat two or three times a week, with most eggs and chicken meat purchased from local markets.	• Most houses are made from adobe, with some having cement-reinforced walls and sheet metal roofs held with stones. • Electricity is provided intermittently from 6pm to 11pm by the municipality's thermal power station. • Water is supplied through taps under the "Water for All" project. • There is no formal waste management system; waste is often burned or buried in holes near houses.	• The Cacola health post is the local health centre, with common illnesses being malaria, cough, diarrhoea, fever, and vomiting. • The neighbourhood has a primary school (grades 1 to 6) and a junior secondary school (grades 7 to 9). • The nearest secondary school (grades 10-11) is located 1.5 kilometers away in the seat of the Jamba commune.	-	• The community is mainly Catholic, Protestant, with some adventists and Jehovah's Witnesses. • Traditional ceremonies include Alambamento (traditional marriage), the Efiko festival (transition of girls to adulthood), and Evanda (male circumcision and transition to adulthood). • Leisure activities consist of football, socializing among all ages, and children's recreational activities on special dates.
Lucunga A	• Lucunga A is located on the outskirts of the municipality of Jamba. • The neighbourhood is accessed via a road under construction as part of the PIIM (Integrated Municipal Intervention Programme). • The current soba is Mr. Paulo Tyamba.	• The estimated population of Lucunga A is 3 180 people, with families of three to nine occupants (father, mother, and children). • The community is predominantly Catholic. • Most residents are natives of the village and belong to the Bantu/Umbundu ethnic group, with Umbundo as their first language. • Portuguese is the official language, but it is not widely spoken among the elderly and women. • People typically grow up in the village and only leave their parents' home when they get married.	• The main means of subsistence in Lucunga A are family farming and informal trade in natural products. • Household income from selling agricultural products ranges from 35 000 Kz to 85 000 Kz per month, while temporary construction jobs, like bricklaying, pay 80 000 to 110 000 Kz per month. • Fertile soils are along the Coluí and Kwandja rivers, with maize and beans as the main crops, alongside sweet potatoes, cassava, and potatoes.	• Most houses are made from adobe with zinc sheeting roofs, typically consisting of 2-4 bedrooms, a living room, and an outside latrine. • The community lacks an electricity supply, relying on wood for cooking and solar-powered lanterns or bonfires for light; some use generators for additional power needs. • Water is sourced from self-dug cacimbas (wells), up to 20 meters deep, and consumed untreated; a solar-powered fountain exists but is inoperative. • There is no formal waste management system, with organic waste buried in holes and other waste burned; villagers walk or use motorbikes for transportation.	• The community lacks a health centre; the nearest hospital (Hospital Municipal da Jamba) is 5 kilometres away, a 35-minute walk. • Medicinal plants are not used for treating illnesses in the community. • Lucunga A has a primary school (1st to 6th grade) built with local materials, consisting of five classrooms and five teachers. • The nearest secondary school is in the seat of the Jamba commune, a 30 to 45-minute walk from the neighbourhood.		• The community is predominantly Catholic, Protestant, and includes some Adventists. • Traditional festivals are limited to a few ceremonies, including Alambamento (traditional marriage) and Evamba (male circumcision). • Main leisure activities are football and socializing among both young and old residents.
Kuandja	• Kuandja neighbourhood is in the commune of Dongo with rural characteristics and was founded before independence in 1975. • The soba (traditional leader) of the neighbourhood is Mr. José Cassanga Calulu.	• The neighbourhood has an estimated population of 2 344 people (874 women, 650 men, 820 children/adolescents) across 320 households, with family sizes ranging from two to nine occupants. • It is primarily a Christian community, with many men having multiple partners and children with different mothers, and families mainly headed by the father.	• The main livelihoods in Kuandja are agriculture and artisanal fishing on the Kuandja and Colui rivers. • Agricultural products are primarily for family consumption and trade. • Household incomes from these activities range	• Most houses are made from local materials such as adobe, wood, and grass; some use sheet metal for roofs, which are slightly sloping or flat and held by stones. • Typical houses have three bedrooms, a living	• The community lacks a health centre; the nearest one is a 20-minute walk away in the communal headquarters. • Common illnesses include malaria, bronchitis, fever, headaches, diarrhoea,	• The community relies on the land for subsistence and well-being, utilizing the ecosystem's provisioning services. • These services include soil and water (from wells/cacimbas) for irrigation, bathing, washing clothes, and drinking. • Firewood and timber are used for fuel and building houses.	• The community is predominantly Catholic and some residents are Protestants and Jehovah's Witnesses • Traditional festivals are limited to a few ceremonies such as alambamento (traditional marriage), Evamba (male

Village/ Neighbourhood	Description	Population and ethnic groups	Livelihoods and income	Housing, sanitation and infrastructure	Health and education	Ecosystem goods and services	Culture and leisure
		• The population includes native residents and migrants from the neighbouring province of Cunene, due to armed conflict, as well as others joining relatives to improve living conditions. • Umbundu is the predominant first language, while Portuguese is the official language but not widely spoken by many adults.	between 35 000 and 200,000 Kz per month. • Households solely dependent on selling agricultural products earn between 35 000 and 95 000 Kz per month.	room, and an outside latrine. • Water is sourced from cacimbas (wells) and a solar-powered borehole/chafariz with a reservoir. • There is no formal waste management system; waste is buried in holes near houses, and organic waste is used as fertilizer.	coughs, and rheumatism. • Some residents use medicinal plants like Omoholi-holi for menstrual pain and bay leaves for high blood pressure and headaches; traditional healers use local plants for various remedies, including infertility. • Kuandja has one primary school; the nearest secondary school is in Cassinga..	• Mineral extraction occurs on the banks of the Kuandja River.	circumcision), Eyele (first harvest ceremony). • The main leisure activities include football and religious festivals.
Cuvango Municipality							
Km 50 Village	• The village of Km 50 is located in the commune of Galangue, Cuvango municipality, established in 1973. • Mr. Pedro Tchindjamba is the current soba, the 14th since the village's establishment. • The traditional governance structure is linked to the formal structure.	• Km 50 is the most populous village in the commune, with an estimated 10,190 people, predominantly women and children/adolescents. • Families range from two to ten occupants, with some men having multiple partners, leading to larger family units. • Most residents are not native to the village, having moved due to civil war or to join relatives. • The population primarily belongs to the Bantu/Umbundu ethnolinguistic group, with Umbundu as the main language; Portuguese is the official language but not widely spoken among the elderly and women. • Disadvantaged/vulnerable groups include residents with disabilities, primarily elderly people with stroke-related paralysis.	• Agriculture is the main livelihood, with trading of agricultural products being common. • Household incomes from agricultural commercialization range between 35,000 and 95,000 Kz per month. • Continuous use of plots has led to decreased crop yields, with women heavily involved in harvesting. • Common crops include maize, beans, sweet potatoes, cassava, and various vegetables, with maize flour being a staple food.	• Houses are mainly made from local materials like adobe, wood, and grass, with some using sheet metal or cement blocks for construction. • Typical houses have 1 to 5 bedrooms, a living room, and sometimes an outside latrine; cooking is done in separate, open structures. • The village lacks infrastructure, with meetings held under trees and social gatherings in open areas. • There is no electricity supply, so firewood, charcoal, solar-panelled lanterns, and bonfires are used for cooking and lighting.	• The village has a health centre (Posto de Saúde at km 50) and a private pharmacy. • Km 50 has a primary school (grades 1 to 6) and a secondary school (1st and 2nd cycles), attended by village children. • Medicinal plants like Omoholi-holi and bay leaf are used for specific health issues such as menstrual pain and hypertension.	• The community relies on the land for subsistence and well-being, utilising soil, water from cacimbas, wood for fuel and construction, and game for food. • Changes in natural resources are affecting the community's traditional way of life. • Provisioning services from the ecosystem are vital for the community's survival and daily activities. • The sustainability of these resources is a growing concern due to environmental changes and overuse.	• The community is predominantly Catholic, with some Protestants and Jehovah's Witnesses. • Traditional festivals include Alambamento (traditional marriage), Evamba (male circumcision), Eyele (first harvest ceremony), and ekuivalenca. • Leisure activities focus on football and socializing among both young and old residents. • Football and social interactions are the primary forms of entertainment and community bonding.
Tchicunho Village	• The village of Tchicunho is located in the commune of Galangue, Cuvango municipality, and predates independence. • The current soba is Mr. Sabino Calungo. • The village has a traditional governance structure.	• Tchicunho has an estimated population of 1 300 people, with families of two to six occupants (father, mother, and children). • Households are mainly headed by the father, but widows can also be heads of households. • The community is predominantly Christian, mainly Catholic, with a few Adventists. • Most residents are native to the village and belong to the Bantu/Umbundu ethnic group; Umbundu is the first language, and Portuguese is the official language but not widely spoken among the elderly and women.	• Agriculture is the main means of subsistence, with products primarily for family consumption and surplus sold along the national road. • Household incomes from agricultural commercialization range between 35,000 and 80 000 Kz per month. • Continuous use of plots has decreased crop yields; common crops include maize, beans, sweet potatoes, cassava, and potatoes.	• Houses are made from local materials (adobe and grass), some with sheet metal roofs; typical houses have bedrooms, a living room, and sometimes an outside latrine. • Meetings are held in the Jango, a wooden and grass structure; cooking is done in separate rooms next to houses. • Water is obtained from a borehole and hand-dug wells (cacimbas); families do not treat their water.	• The village has one health centre, the Tchicunho Health Post; • Traditional healers use local plants for remedies, including treatments for infertility. • Tchicunho has two primary schools (1st to 6th grade) and one secondary school (7th to 9th grade); one primary school operates inside a Protestant church. • The primary schools have five classrooms and five teachers.	• The community relies on the land for subsistence and well-being, with provisioning services including soil, water from the Cubango River, mini-hydro systems, and groundwater from cacimbas. • Wood and firewood are used for fuel and building houses; hunting is also common. • Some residents produce charcoal for income. • The ecosystem's resources are essential for daily activities and economic survival.	• The community is predominantly Catholic and Adventist. • Traditional festivals include Alambamento (traditional marriage) and Evamba (male circumcision). • Main leisure activities are football and socializing among young and old. • The village has two cemeteries. • Cultural practices and leisure activities are integral to community life and social cohesion.

Village/ Neighbourhood	Description	Population and ethnic groups	Livelihoods and income	Housing, sanitation and infrastructure	Health and education	Ecosystem goods and services	Culture and leisure
			• Burning is used to clear land for agriculture; tools include hoes, machetes, and axes, with some animal traction; shortages of seeds and fertilizers are common. • Animal husbandry and hunting are prevalent; common animals include cattle, goats, pigs, and poultry; hunting involves traps, dogs, and arrows, with villagers eating meat three to four times a week.	• There is no electricity; people use wood for cooking, and lanterns or bonfires for light at night; the borehole is powered by solar energy. • There is no formal waste management system; organic waste is buried near houses and other waste is burned; no public transport is available, and villagers walk or use motorbikes for longer distances.	• The secondary school serves the local children, providing basic education.		
Ngokue Village	• The Ngokue community was founded in 1994 and is part of the traditional Ombala Ya Nduma jurisdiction. • The current soba is Mr. Zacarias Bunanga. • The village has a traditional governance structure linked to formal administration.	• The estimated population is 264 people, with families of two to eight occupants, mostly Christian. • Large households are common due to some men having multiple partners and children with different mothers. • Most residents are native to the village; some moved due to civil war. • The population is Bantu/Umbundu; Umbundu is the first language, and Portuguese is the official language but not widely spoken among the elderly and women.	• Family farming is the main means of subsistence, with some entrepreneurial farming of profitable crops like beans for sale. • Households earn between 35 000 Kz and 70 000 Kz per month from commercializing agricultural products. • Continuous use of land has led to decreasing crop yields; main crops include maize, sorghum, beans, cassava, and sweet potatoes. • Animal husbandry and hunting are prevalent; common animals include oxen, cows, goats, pigs, and poultry.	• Houses are made from local materials (adobe, wood, grass); some use sheet metal or cement blocks for construction. • There is no electricity; wood and charcoal are used for cooking, and solar lanterns or bonfires provide light at night. • Water is obtained from hand-dug wells (cacimbas) and a broken community borehole; some use rainwater retention reservoirs (chimpacas) for cattle. • There is no formal waste management system; waste is buried or burned, and public transport is absent; villagers walk or use motorbikes for longer distances.	• The community does not have a health centre; the nearest one is seven kilometers away. • Ngokue has a primary school with six classrooms (grades 1 to 6); the nearest secondary school is seven to eight kilometers away. • Health and educational facilities are limited, with a reliance on traditional practices for healthcare. • Education is basic, with primary schooling available in the village and secondary schooling at the communal headquarters.	• The community relies on the land for subsistence, using soil, water from rivers and wells, wood for fuel and building, and game for food. • Soil fertility is reported to be declining, possibly due to reduced rainfall. • Rivers are used for bathing and washing clothes; changes in natural resources affect community livelihood. • Ecosystem services are crucial for the community's daily activities and economic survival.	• The community is predominantly Catholic, with some Protestants and Adventists. • Traditional festivals include Alambamento (traditional marriage), Evamba (male circumcision), and Eyele (first harvest ceremony). • Main leisure activities are football and socializing among young and old. • The community has two small cemeteries. • Cultural practices and leisure activities are integral to community life and social cohesion.
Chipindo Municipality							
Bairro 1 de Maio	• 1º de Maio is a neighbourhood in the seat of Chipindo commune, founded around 1973. • The soba is Mr. Paulino Lutiki. • Access is via the main dirt road, currently under rehabilitation. • The neighbourhood has a traditional governance structure linked to formal administration.	• The neighbourhood has an estimated 5 014 people in 2 200 houses, with families of two to six occupants. • The community is predominantly Christian, with many men having multiple partners and children with different mothers. • Most residents are natives of Chipindo commune, with some joining relatives to improve living conditions. • The population is Bantu/Umbundu; Umbundu is the first language, and Portuguese is the official language but not widely spoken. • Households are mainly headed by fathers, but widows can also be heads of household.	• Agriculture is the main livelihood, with products used for family consumption and trade. • Household incomes from agricultural commercialization range between 60 000 and 200 000 Kz per month. • Continuous use of plots has decreased crop yields; main crops include maize, beans, manioc, reindeer potatoes, sweet potatoes, tomatoes, onions, cabbage, and garlic.	• Houses are made from local materials (adobe, wood, grass), with some using cement blocks or bricks and cement. • There is no electricity; wood and charcoal are used for cooking, and solar lanterns or bonfires provide light at night. • Water is obtained from cacimbas, a community fountain, and the Locoma River; some households treat water with remedies or physical methods.	• The community has one health centre, the Chipindo Municipal Hospital • Traditional healers use local plants for remedies. • Bairro 1º de Maio has two primary schools and one secondary school; some children study in Lubango and Huambo for courses not available in Chipindo. • Health services are basic, relying on both	• The community relies on the land for subsistence, using soil, water from rivers and wells, wood for fuel and construction, pasture for livestock, and some game. • Soil infertility is a concern, likely due to low rainfall. • The ecosystem provides essential resources for daily activities and economic survival. • Changes in natural resources affect the community's traditional way of life.	• The community is predominantly Catholic, with some Protestants and Jehovah's Witnesses. • Traditional festivals include alambamento (traditional marriage), Evamba (male circumcision), Eyele (first harvest ceremony), and ekuivalenca. • Main leisure activities are football, socializing among young and old, and religious activities. • Leisure activities help maintain community bonds and cultural identity.

Village/ Neighbourhood	Description	Population and ethnic groups	Livelihoods and income	Housing, sanitation and infrastructure	Health and education	Ecosystem goods and services	Culture and leisure
			• Burning is used to clear land; tools include axes, machetes, and hoes; animal traction is used by some but requires payment. • Animal husbandry is common, with chickens, ducks, goats, oxen, and cows; meat is eaten two to three times a week, and eggs are used to raise chickens.	• There is no formal waste management system; waste is buried or burned, and motorbikes are the main means of transport; mobile network coverage is available.	modern and traditional medicine. • Educational facilities are limited but serve the community's basic needs.		
Buloteque Village	• Buloteque is a rural village in the municipal seat of Chipindo, founded in 1969. • The current soba is Mr. Faustino Tchimbungo.. • Access to the village is via a challenging road (picada) during rainy seasons. • The village has a traditional governance structure linked to formal administration.	• The village has an estimated population of 2 998 people, grouped into families of two to eight occupants. • The community is predominantly Christian, with large families due to men having multiple partners and children with different mothers. • Most residents are native to the village, with some joining relatives due to civil war or to improve living conditions. • The population is Bantu/Umbundu; Umbundu is the first language, and Portuguese is the official language but not widely spoken among the elderly and women. • Households are mainly headed by fathers, but widows can also be heads of household.	• Agriculture is the main livelihood, with products primarily for family consumption and surplus sold. • Households earn between 25 000 Kz and 70 000 Kz per month from agricultural commercialization. • Continuous use of plots has decreased crop yields; main crops include maize, millet, beans, potatoes, manioc, sweet potatoes, and pumpkin. • Common tools are axes, machetes, and hoes; some use animal traction, but supplies are limited due to cost and low rainfall. • Animal husbandry and hunting are prevalent; common animals include chickens, ducks, goats, oxen, and cows; villagers eat meat three to four times a week.	• Houses are made from local materials (adobe, wood, grass), with some using sheet metal or cement blocks. • Typical houses have two to five bedrooms, a living room, and sometimes an outside latrine; food is cooked in separate, attached rooms. • There is no electricity; wood and charcoal are used for cooking, and solar lanterns or bonfires provide light at night. • Water is obtained from cacimbas, with a system of ropes and buckets; water is rarely treated, though some use physical methods. • There is no formal waste management system; waste is buried or burned, and public transport is absent, with villagers walking or using motorbikes for longer distances.	• The village has a health centre; common illnesses include malaria, headaches, bronchitis, diarrhoea, rheumatism, typhoid fever, and stomach aches. • Some residents use medicinal plants for treatments, including Ndembi for chest pain, Ufilanganga for headaches, and Tumbandjali for typhoid fever. • Buloteque has a primary school (grades 1 to 6) attended by village children, with most teachers residing in the municipal centre of Chipindo. • Health services combine modern and traditional medicine to meet community needs. • Education facilities are basic, serving the primary educational needs of the village children.	• The community relies on the land for subsistence, using soil, water from rivers and wells, wood for fuel and construction, and game for food. • Soil infertility and a decrease in wild animals have been reported, likely due to deforestation and charcoal production. • Charcoal production is prevalent, impacting the ecosystem's sustainability. • Ecosystem services are essential for daily activities and economic survival.	• The community is predominantly Catholic and Protestant. • Traditional festivals include Alambamento (traditional marriage), Evamba (male circumcision), Eyele (first harvest ceremony), and Ekuivalenca. • Main leisure activities are football and socializing among young and old. • Cultural practices and leisure activities are important for social cohesion.
Oko Village	• Oko is a rural village in Chipindo municipality, with an unknown foundation date. • The village soba is Mr. José Tchiconguele. • The village is crossed by the Kongue River and accessed from an unpaved road linking Chipindo and Cuvango. • The village has a traditional governance structure linked to formal administration.	• The village has an estimated population of 1 445 people, mostly women and children, grouped into families of two to nine occupants. • The community is predominantly Christian, with large families due to men having multiple partners and children with different mothers. • Most residents are native to the village and belong to the Bantu/Umbundu group. • Umbundu is the first language, and Portuguese is the official language but not widely spoken among the elderly and women.	• Agriculture is the main livelihood, with products primarily for family consumption and surplus sold. • Households earn between 25 000 Kz and 70 000 Kz per month from agricultural commercialization; some receive government subsidies for being former war combatants. • Continuous use of plots has decreased crop yields; main crops include maize, beans, sweet	• Houses are made from local materials (adobe, wood, grass), with some using sheet metal for roofs. • Typical houses have one to four bedrooms, a living room, and an outside latrine; food is cooked in separate, attached rooms. • There is no electricity; wood and charcoal are used for cooking, and solar lanterns or bonfires provide light at night.	• The community lacks a public health centre; the nearest one is 7-8 km away at Chipindo Municipal Hospital. • Common illnesses include malaria, diarrhoea, vomiting, fever, back pain, and rheumatism; some residents use medicinal plants for treatment. • Oko has a primary school (grades 1 to 6); the nearest secondary school (grades 7 to 9) is 1.5 km away at the	• The community relies on the land for subsistence, using soil, water from wells, wood, medicinal plants, firewood, and game. • Soil infertility and a decrease in game animals have been reported, likely due to deforestation and charcoal production. • Ecosystem services are crucial for daily activities and economic survival. • Changes in natural resources affect the community's traditional way of life.	• The community is predominantly Catholic. • Traditional festivals include alambamento (traditional marriage), Evamba (circumcision), Eyele (first harvest ceremony), and Ekuivalenca. • Main leisure activities are football and socializing among young and old. • Cultural practices and leisure activities are important for social cohesion.

Village/ Neighbourhood	Description	Population and ethnic groups	Livelihoods and income	Housing, sanitation and infrastructure	Health and education	Ecosystem goods and services	Culture and leisure
			potatoes, manioc, cabbage, onions, tomatoes, yams, and ginguba. • Charcoal production is common, with families earning between 100,000 Kz and 150,000 Kz per month from sales.	• Water is obtained from cacimbas, using a system of ropes and buckets; water is rarely treated. • There is no formal waste management system; waste is buried or burned, and public transport is absent, with villagers walking or using motorbikes for longer distances.	Catholic Mission of Sangueve. • Health services are limited, relying on both modern and traditional medicine. • Education facilities are basic, serving the primary educational needs of the village children.		
Capuca Village	• Capuca is a rural village located on the main road connecting Chipindo to the town of Gove. • The current soba is Mr. Celestino Chivela Numa. • Access is via a main road that is in poor condition. • The village has a traditional governance structure linked to formal administration.	• The village has an estimated population of 1 300 people, mostly women and children, grouped into families of two to eight occupants. • The community is predominantly Christian, with large families due to men having multiple partners and children with different mothers. • Most residents are native to the village and belong to the Bantu/Umbundu group. • Umbundu is the first language, and Portuguese is the official language but not widely spoken among the elderly and women. • Households are mainly headed by fathers, but widows can also be heads of household.	• Agriculture is the main livelihood, with products primarily for family consumption and surplus sold. • Households earn between 35 000 Kz and 80 000 Kz per month from agricultural commercialization; one former war fighter receives a government subsidy. • Continuous use of plots has decreased crop yields; main crops include maize, sorghum, beans, sweet potatoes, manioc, cabbage, onions, tomatoes, yams, and ginguba. • Animal husbandry is common, with chickens, ducks, goats, oxen, and cows; villagers regularly eat meat and milk. • Seasonal pests affect livestock; local herbs are used as alternative treatments while awaiting veterinary support.	• Houses are made from local materials (adobe, wood, grass), with some using sheet metal for roofs. • Typical houses have one to four bedrooms, a living room, and an outside latrine; food is cooked in separate, attached rooms. • There is no electricity; wood and charcoal are used for cooking, and solar lanterns or bonfires provide light at night. • Water is obtained from cacimbas, using a system of ropes and buckets; water is rarely treated. • There is no formal waste management system; waste is buried or burned, and public transport is absent, with villagers walking or using motorbikes for longer distances.	• The community lacks a public health centre; the nearest is 3-4 km away in Buloteque. • Common illnesses include malaria, diarrhoea, vomiting, fever, back pain, and rheumatism; some residents use medicinal plants for treatments. • Capuca has a primary school (grades 1 to 6); the nearest secondary school is 7 km away in the commune center. • Health services are limited, relying on both modern and traditional medicine. • Education facilities are basic, serving the primary educational needs of the village children.	• The community relies on the land for subsistence, using soil, water from rivers and wells, wood, medicinal plants, and game. • Soil infertility and a decrease in wild animals have been reported, likely due to deforestation and charcoal production. • Ecosystem services are crucial for daily activities and economic survival. • Changes in natural resources affect the community's traditional way of life. • Sustainable management of these resources is essential for the community's future.	• The community is predominantly Catholic, with some Protestants from the Evangelical Congregational Church of Angola (I.E.C.A). • Traditional festivals include alambamento (traditional marriage), Evamba (circumcision), and Efico (ceremony marking the transition of girls from adolescence to adulthood). • Main leisure activities are football and socializing among young and old. • Cultural practices and leisure activities are important for social cohesion. • The village has a cemetery approximately 3.5 km away.

Appendix G: Stakeholder Engagement Plan (SEP)

Stakeholder Engagement Plan for the Cassinga Power Supply Project ESIA

Report Prepared for

Pak Yatirim

Report Number 595657/SEP

Report Prepared by

srk consulting

December 2024

Stakeholder Engagement Plan for the Cassinga Power Supply Project ESIA

Pak Yatirim

Kozyatağı Neighbourhood
Kaya Sultan Street
Nanda Plaza
No: A83/8 Kadıköy
İstanbul

SRK Consulting (South Africa) (Pty) Ltd
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

Tel: +27 (0) 11 441 1111
e-mail: Johannesburg@srk.co.za
website: www.srk.co.za

SRK Project Number 595657

December 2024

Compiled by:

Lynette Herbst
Senior Social Scientist

Email: LHerbst@srk.co.za

Reviewed by:

Vassie Maharaj
Partner / Principal Consultant

Authors:

Julia Bell; Lynette Herbst

Table of Contents

Disclaimer v
List of Abbreviations vi
1 Introduction and background 8
1.1 Project background 8
1.2 Project location 8
1.3.1 Purpose of SEP 10
1.3.2 Principles 11
1.4 Structure 11
2 Policy and regulatory framework 12
2.1 International standards and guidelines 12
2.1.1 IFC Performance Standards 12
2.1.2 Equator Principles 12
2.1.3 United Nations Guiding Principles on Business and Human Rights 13
2.1.4 UN Sustainable Development Goals 14
2.1.5 OECD Due Diligence Guidelines 14
2.1.6 IFC Environmental, Health and Safety Guidelines 14
3 Previous stakeholder engagement 16
3.1.1 Reconnaissance site visit 16
3.1.2 Primary data collection 16
4 Socio-economic context 18
5 Stakeholder mapping and analysis 19
5.1.1 Objectives of stakeholder mapping and analysis 19
5.2 Stakeholder identification 19
5.3 Identification of vulnerable groups 22
5.4 Mapping and analysis of project stakeholders 26
5.4.1 Updating the stakeholder matrix 26
6 Stakeholder engagement activities 32
6.1 Engagement methods 32
6.2 Stakeholder engagement action plan 32
7 Grievance management 40
7.1 Publicising the Grievance Mechanism 40
7.2 Grievance management process 41
8 Resources and responsibilities 46
9 Information management 48
10 Monitoring and evaluation 49
10.1 M&E activities 49
10.2 Reporting 50
10.2.1 Weekly, monthly and quarterly 50

10.2.2 Annual 50
11 Conclusion 52
12 References 53
Appendices 54
Appendix A: Stakeholder database template 55
Appendix B: Stakeholder consultation log 57
Appendix C: Grievance mechanism supporting information 59
Appendix D: Grievance register 62
Appendix E: Grievance registration form 64
Appendix F: Grievance close-out form 66
Appendix G: Grievance response letter 68
Appendix H: Attendance register 70
Appendix I: Meeting agenda template 72
Appendix J: Meeting minutes template 74

List of Tables

Table 3-1: Number and dates of surveys undertaken in Jamba, Cuvango and Chipinido....17
Table 5-1: Identified Project stakeholders....20
Table 5-2: Vulnerable / disadvantaged groups identified during field surveys....23
Table 5-3: Stakeholder mapping rating criteria....26
Table 5-4: Stakeholder matrix for the Cassinga Power Supply Project (to be updated annually)....28
Table 6-1: Stakeholder engagement action plan for the pre-construction, construction and operational phases....33
Table 7-1: Grievance management steps....42
Table 8-1: Roles and responsibilities of relevant personnel managing stakeholder engagement....46
Table 10-1: Monitoring and evaluation of SEP....49

List of Figures

Figure 1-1: Location of the proposed OHL with associated distribution networks in Cuvango, Chipindo and Jamba....9
Figure 5-1: Diagram of the local government structure....20
Figure 7-1: Grievance management process....41

Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (South Africa) (Pty) Ltd (SRK) by Pak Yatirim (Pak). The opinions in this Report are provided in response to a specific request from Pak to do so. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate.

List of Abbreviations

AoI	Area of Interest
ASM	Artisanal and Small-scale Mining
CLO	Community Liaison Officer
CSO	Civil Society Organisation
EHS	Environmental Health and Safety
EKF	Eksport Kredit Fonden
ENDE	National Energy Distribution Company *(Empresa Nacional de Distribuição de Electricidade)*
EP	Equator Principles
EPFI	Equator Principles Financial Institutions
ESIA	Environmental and Social Impact Assessment
FBO	Faith-Based Organisation
GAC	Grievance Appeal Committee
GRC	Grievance Resolution Committee
HRIA	Human Rights Impact Assessment
ICP	Informed Consultation and Participation
IFC	International Finance Corporation
ILO	International Labour Organisation
LARF	Land Acquisition and Resettlement Framework
LRP	Livelihood Restoration Plan
M&E	Monitoring and Evaluation
MASFAMU	Ministry of Social Action, Families, and the Promotion of Women
MINAGRIF	Ministry of Agriculture and Forestry *(Ministério da Agricultura e Florestas)*
MINAMB	Ministry of Environment *(Ministério do Ambiente)*
MINEA	Ministry of Energy and Water *(Ministério da Energia e Águas)*
MINFIN	Ministry of Finance of Angola
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
OHL	Overhead Line
PAC	Project Affected Community
PRODEL - EP	*Empresa Pública de Produção de Electricidade*
PS	Performance Standards
RAP	Resettlement Action Plan

RNT	National Electricity Transmission Company (*Rede Nacional de Transporte de Electricidade)*
SCB	Standard Chartered Bank
SDG	Sustainable Development Goals
SE	Stakeholder engagement
SEM	Stakeholder Engagement Manager
SEP	Stakeholder Engagement Plan
SHERQ	Safety, Health, Environment, Risk, and Quality
SLO	Social Licence to Operate
SRK	SRK Consulting South Africa (Pty) Ltd
UN	United Nations
UNGPs	United Nations Guiding Principles on Business and Human Rights
WB	World Bank

1 Introduction and background

SRK Consulting (South Africa) (Pty) Ltd (SRK) has been appointed by Pak Yatirim (Pak) to conduct an Environmental and Social Impact Assessment (ESIA) for the proposed Cassinga Power Supply Project (the Project). Geolab Engenharia & Serviços (Geolab) is SRK's in-country partner in Angola. The ESIA is to meet local legislative requirements as well as lender requirements. Therefore, the ESIA includes various specialist studies and plans to support the ESIA and to ensure that the Project meets relevant Good International Industry Practices (GIIP). This Stakeholder Engagement Plan (SEP) has been prepared as part of the ESIA for the project. The SEP serves as a guide for all stakeholder engagement activities undertaken during the impact assessment process and associated specialist studies, as well as subsequent phases of the project lifecycle. It should be read in conjunction with the Socio-Economic Impact Assessment (SEIA), the Human Rights Impact Assessment (HRIA), the Land Acquisition and Resettlement Framework (LARF), and the Community Health, Safety and Security (CHSS) Plan prepared for the project. The SEP has been compiled in alignment with relevant international principles, standards and guidelines, such as the International Finance Corporation (IFC) Performance Standards (PSs), United Nations Guiding Principles on Business and Human Rights (UNGPs) and Equator Principles. The SEP must be reviewed and updated annually.

1.1 Project background

The Republic of Angola, through its Ministry of Energy and Water (*Ministério da Energia e Águas* – MINEA), is embarking on a significant enhancement of its electrical infrastructure through the Project which aims to boost electric power supply across various communities within the Province of Huíla. The Project is structured around establishing a new 220 kV Overhead Line (OHL) network, extending from Gove Hydro Plant to Cuvango which branches out to Chipindo and Jamba. This project includes the construction of new substations in the municipalities of Chipindo, Cuvango, and Jamba, each equipped with a capacity of 220/30 kV – 20 MVA to efficiently distribute the power generated to these municipalities which are all located in the Huíla Province in south-west Angola. The Project further includes the construction of 30 kV medium voltage (MV) overhead lines for distribution, along with the necessary low voltage (LV) network to supply 1 000 connections in each of the three villages, including public lighting, within the communities of Chipindo, Cuvango, and Jamba.

The overarching goal is to create a robust and reliable electric power supply system that caters to the current demands and is scalable to accommodate future expansions, including the prospective OHL 220 kV interconnection to Cuchi/Menongue. An estimated power demand of 80 MW has been calculated for the Cassinga Project, with an additional 10 MW anticipated for local community demands. This project is critical in addressing the electricity needs of the region to foster economic growth, improve the quality of life of its residents, and to meet the growing energy demands of the region.

A detailed project description is provided in the ESIA and the SEIA.

1.2 Project location

The Project is located south of the centre of Angola, namely, in the provinces of Huíla and Huambo (Figure 1-1). The OHL extends for about 170 km, crossing six municipalities (Municípios) which include Jamba, Cuvango, Dongo, Galangue, Chipindo and Kalima.

The OHL will start near the Gove Hydro Dam in the Huambo Province, but the main works will be carried out largely in the Huíla Province. From Gove, the 220 kV OHL will extend to Chipindo, then Cuvango, and finally Jamba where new 220/30 kV substations will be built in each of these

municipalities' seats[1]. In addition, the infrastructure associated with the electrification of villages at Chipindo, Cuvango and Jamba will be constructed, such as the aforementioned MV and LV distribution powerlines. The project will comprise two stages, namely Stage 1, a 135 km section between Gove, Chipindo and Cuvango, and Stage 2, a 35 km section between Cuvango and Jamba.

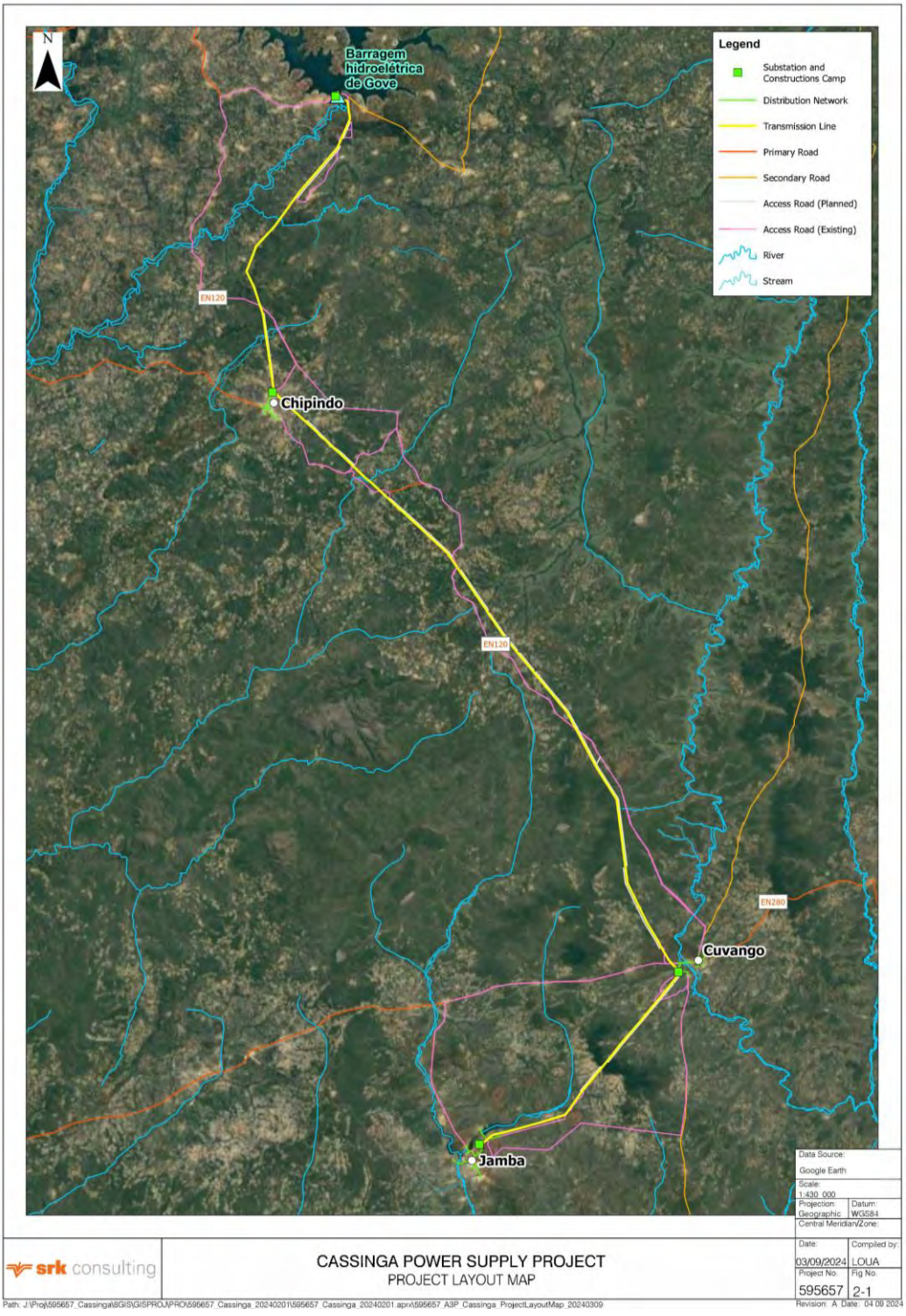


Figure 1-1: Location of the proposed OHL with associated distribution networks in Cuvango, Chipindo and Jamba.

[1] The name of the main town, commune or seat of the municipality, is the same as the name of the administrative division of the municipality which is geographically larger and contains numerous villages or smaller communes. For instance, the *communes* of Jamba, Dongo, and Tchamutete (formerly, Cassinga) are located in the *municipality* of Jamba.

1.3 Scope of the SEP

It is anticipated that stakeholder engagement will be an ongoing process throughout the project lifecycle. A four-phased approach has been adopted to plan for ongoing engagement with stakeholders. This SEP has been developed for the:

1. ESIA process (immediate- to short-term stakeholder engagements);
2. Pre-construction phase overseen by Pak and RNT (short-term);
3. Construction phase overseen by Pak (short- to medium-term); and
4. Operational phase (medium- to long-term) overseen by RNT under the MINEA.

This SEP establishes the engagement standards, protocols and activities that will be undertaken during the ESIA process. It covers engagement with stakeholders affected by Project activities, including impacted communities, local authorities (such as commune and municipal administrations) responsible for these communities, as well as stakeholders with an interest in the Project, such as provincial government authorities and departments, civil society organisations (CSOs), local businesses and suppliers in the area.

Engagement with internal stakeholders, such as employees, contractors, shareholders and corporate-level stakeholders, is excluded from this SEP.

Importantly, this SEP requires the identification and inclusion of vulnerable groups in the stakeholder engagement process. It is gender and culturally sensitive.

1.3.1 Purpose of SEP

Meaningful engagement with stakeholders is important to manage the potential social and environmental impacts of the Project. The stakeholder engagement approach is based on the principles of informed consultation, participation, transparency, accountability and respect for human rights. Stakeholder engagement also assists in the establishment and maintenance of the Project's Social Licence to Operate (SLO). The purpose of conducting stakeholder engagement in this Project is to:

- Create lasting, constructive relationships with stakeholders;
- Disclose Project information to enable stakeholders to contribute meaningfully to the Project throughout its lifecycle through, for example, impact management and raising concerns timeously;
- Establish productive dialogue with stakeholders to understand their concerns and seek joint solutions;
- Ensure compliance with national regulatory requirements and international good practice and maintain it throughout the Project lifecycle;
- Support obtaining and maintaining SLO;
- Ensure the identification of all stakeholders, including vulnerable people, who will be directly and indirectly impacted by Project activities;
- Provide the framework for structured, proactive stakeholder engagement;
- Establish a Grievance Mechanism to manage and process Project-related stakeholder grievances through a transparent procedure that aims to timeously resolve grievances; and
- Outline the monitoring and evaluation activities that will be undertaken to ensure that the SEP remains relevant and achieves its objectives.

This SEP provides internal Project stakeholders (such as the Project owner(s), funders, contractors and sub-contractors, and staff in various phases of the Project's lifecycle) with a guideline for engaging external stakeholders (the surrounding community(ies), interest groups, residents or landowners) in a meaningful manner that encourages two-way engagement. Therefore, it is written for the entire Project lifespan, including permitting, planning and design (which includes the ESIA phase); construction; and operation. It allows for the systematic integration of stakeholder concerns and perspectives into Project decisions and steps as applicable to the context and timelines of the Project.

1.3.2 Principles

The following internationally recognised principles apply to this SEP:

- Stakeholder engagement (SE) should commence in the initial stages of the Project, when planning and permitting are being undertaken;
- SE planning and management should continue and be adapted as risks and impacts arise and Project circumstances and external factors change over time;
- Engagement with stakeholders should involve the disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information early on;
- Engagements should take place in a culturally appropriate manner, in the local language(s) and in a format that is understandable and approachable to Project Affected Communities (PACs);
- Although SE should be inclusive it should also have a focus on directly affected and vulnerable stakeholders;
- There should be no coercion, pressure, or interference during engagements;
- Stakeholders should be enabled to participate meaningfully; and
- Records should be kept of stakeholder engagement activities and outcomes.

1.4 Structure

This SEP is divided into eight sections which are outlined below:

- Section 1: Introduction and background;
- Section 2: Policy and regulatory framework;
- Section 3: Previous stakeholder engagement;
- Section 4: Socio-economic context;
- Section 5: Stakeholder mapping and analysis;
- Section 6: Stakeholder engagement activities;
- Section 7: Grievance management;
- Section 8: Resources and responsibilities;
- Section 9: Information management;
- Section 10: Monitoring and evaluation;
- Section 11: Conclusion; and
- Section 12: References.

2 Policy and regulatory framework

2.1 International standards and guidelines

This SEP has been developed in alignment with the IFC PSs (2012), the Equator Principles (EPs) (2013), the UNGPs (2011), the United Nations (UN) Sustainable Development Goals (SDGs), the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidelines for Responsible Corporate Lending and Securities Underwriting (Due Diligence Guidelines) and the IFC Environmental Health and Safety (EHS) Guidelines.

2.1.1 IFC Performance Standards

The IFC regards stakeholder engagement as a key building block for strong, constructive, and responsive relationships to successfully manage a project's environmental and social impacts in the long term. Stakeholder engagement should continue throughout the project's lifecycle, but it must be proportionate to the project's risks, negative impacts, and phase of development. *PS1: Assessment and Management of Environmental and Social Risks and Impacts* is relevant to this Project's approach to stakeholder engagement.

IFC PS1: Assessment and management of environmental and social risks and impacts

In addition to directing the overall assessment and management of environmental and social risks, PS1 prescribes how the grievances raised by project-affected stakeholders should be managed. It also provides guidance on how stakeholders should be engaged throughout the project lifecycle in a way that relevant information is disclosed. PS1 requires that stakeholders are heard and understood, and that their views are considered in project decisions through "Informed Consultation and Participation (ICP)".

It also discusses the integration of vulnerable or disadvantaged groups in a project's Area of Influence (AoI). Vulnerable status could be the result of an individual or group's age, gender, ethnicity, religion, political affiliation, nationality, literacy level, health status, physical or mental disability, or economic standing. Once these groups have been identified, it must also be established whether they will be disproportionately affected by a project. The consultation process must then be adjusted to the needs of these groups of individuals.

2.1.2 Equator Principles

The ten EPs set a benchmark for the financial industry to determine, assess and manage environmental and social risks in the projects they finance (EP Association, 2023). This ensures that the projects are developed in a manner that is socially responsible and conforms to sound environmental management practices. One of the key tenets that underpin the EPs is that negative impacts on ecosystems, the climate, and communities should be prevented as far as possible (EP Association, 2020). Where adverse impacts are unavoidable, they should be reduced, mitigated and/or compensated for adequately. The Equator Principles Financial Institutions (EPFIs) note that the application of the principles can contribute to the achievement of the UN SDGs. By default, the EPs adhere to the UNGPs and support the objectives of the 2015 Paris Agreement (EP Association, 2020).

The EPs that are relevant to this Project, and how they are applied, are discussed below:

Principle 5: Stakeholder Engagement

All Projects with notable adverse environmental and social impacts and/or risks must demonstrate effective, continuous SE that is structured and culturally appropriate. An ICP process should be undertaken. This ICP should be tailored to the:

- risks and impacts;
- phase in the Project's lifecycle;
- language preferences and decision-making processes of the Affected Communities; and
- needs of disadvantaged and vulnerable groups.

The SE process should be free from external manipulation, interference, coercion, and intimidation. The documentation that shows how risks and impacts have been assessed (such as the ESIA) must be made readily available to the PACs and other relevant stakeholders in the local language and in a culturally appropriate manner. This must be done early in the process before construction commences, and then continually thereafter as appropriate. The SE process must be documented. The records kept should include any actions that were agreed upon during the SE process.

Where SE is the responsibility of the host government, the Project must collaborate with the responsible government agency during the planning, implementation and monitoring of SE activities, to the extent permitted by the agency. In the case of this Project, MINAMB conducts the public consultation process for the ESIA phase. Other government agencies (RNT and MINAE) will be responsible for SE once the transmission line is operational. It is therefore important that Pak Yatirim retains open communication with the relevant government agencies in all SE that is attached to the Project (e.g. that of the ESIA phase, potential displacement-related engagements, employment and contracting opportunities, and ongoing grievance and perception management).

This SEP has therefore been compiled in a way that will allow the Project to undertake ICP during its lifetime and that is appropriate to the magnitude of environmental and social risks and/or impacts that the Project might have on various stakeholder groups, including PACs. The identification of "Other Stakeholders" takes place in this SEP but is also emphasised as an ongoing process. Building and maintaining healthy relationships with the relevant government bodies is emphasised as a long-term strategy to ensure support for the Project. The recording of all SE activities is also set out in this SEP. It provides measures to monitor and evaluate the effectiveness of the SEP.

Principle 6: Grievance Mechanism

Projects must establish effective Grievance Mechanisms which are designed for use by Project stakeholders. The Grievance Mechanisms must allow for the receipt of grievances (including issues and concerns) and enable the resolution thereof. As with the SE process, Grievance Mechanisms should be scaled to the magnitude of the environmental and social risks and impacts of the Project. The Grievance Mechanisms should endeavour to resolve grievances promptly, through an understandable and transparent consultative process. The Grievance Mechanisms should be culturally appropriate, readily accessible, free, and without retribution to the complainant. Grievance Mechanisms should not block the complainant's access to judicial or administrative remedies. The Project will inform stakeholders about the Grievance Mechanisms as part of the SE process.

This SEP contains a detailed Grievance Mechanism and requires the Project to publicise it in a manner that is suitable to the socio-economic circumstances – in particular those of vulnerable people.

2.1.3 United Nations Guiding Principles on Business and Human Rights

The UNGPs is a set of guidelines for countries and companies that aims to prevent and address human rights abuses that could be committed in business operations (UN, 2023). The UNGPs rest on three pillars, namely *I. Protect* (State duty to protect human rights – principles 1-10), *II. Respect* (corporate responsibility to respect human rights – principles 11-24), and *III. Remedy* (access to remedy for victims of business-related abuses – principles 25-31).

In summary, governments must provide a framework (through legislation or policy) in which businesses should operate without violating any of the internationally recognised human rights. Businesses must take responsibility to ensure there are no new, ongoing or past human rights

violations take place or that have not been remedied. Governments and businesses must provide access to remedy for any human rights violations as a result of a business's activities.

To support the Project's compliance with these principles, this SEP contains a Grievance Mechanism that does not impede access to judicial remedy, and which seeks to remedy grievances in a mutually beneficial way. It contains ways to identify and include vulnerable groups in the stakeholder engagement process. It requires ongoing monitoring and evaluation of the performance of the SEP by considering external stakeholder inputs and not only internal evaluations.

2.1.4 UN Sustainable Development Goals

The SDGs were developed to achieve the UN's agenda for a more sustainable and equitable world by 2030. There are 17 goals with specific targets to meet and indicators to measure progress toward reaching them. Broadly, the SDGs aim to advance the basic standard of living and address global challenges including gender inequality, climate change and sustainable economic development.

The SDGs which this SEP can contribute toward achieving are discussed below.

SDG 5: Gender Equality and SDG 10: Reduced Inequality

Incorporated in the SEP is the identification of vulnerable stakeholder groupings including women, elderly people, indigenous peoples and disabled individuals. To ensure equal opportunities to engage with the Project, the SE practices and Grievance Mechanism in this SEP are tailored to the needs of these vulnerable stakeholders.

SDG 16: Peace, Justice and Strong Institutions

This SEP contains a Grievance Mechanism which can offer stakeholders a fair and transparent process to obtain remediation to their grievances.

2.1.5 OECD Due Diligence Guidelines

The OECD Due Diligence Guidelines provide a framework for financial institutions to identify, assess and address environmental and social risks associated with their lending and underwriting activities (OECD, 2019). This guidance aims to assist financial institutions in contributing to sustainable development by promoting responsible business conduct. In terms of human rights issues, the recommendations in the OECD guidelines align with the UNGPs, International Labour Organisation (ILO) Declaration on Fundamental Principles and Rights at Work, ILO conventions and ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy.

Stakeholder engagement is regarded as an informative component of the due diligence process, particularly where adverse impacts were caused or are anticipated. To be meaningful, the engagement should be reciprocal and involve good faith of all parties. This includes the timely sharing of information that is accessible and understandable for stakeholders to make informed decisions. Appropriate forms of remedy should be identified where a financial institution has contributed to an adverse impact.

For high-risk activities or clients, financial institutions should also assess their clients' stakeholder engagement activity against international standards (OECD, 2019). This could include a review of engagement records and the recommendation to develop a stakeholder mapping strategy.

2.1.6 IFC Environmental, Health and Safety Guidelines

The IFC EHS Guidelines provide requirements and recommendations specific to an industry's EHS challenges which the World Bank (WB) requires its clients and borrowers to apply to their projects. Among other aspects, the guidelines cover the identification of EHS project hazards and associated risks, risk management strategies to eliminate or minimise hazards, monitoring and community preparation activities.

These guidelines are intended to be used in tandem with the relevant Industry Sector EHS Guidelines, which is the *EHS Guidelines for Electric Power Transmission and Distribution* in the case of this project. To mitigate the visual impact of power distribution projects, the industry-specific guidelines recommend extensive public consultation during the planning of the powerline.

3 Previous stakeholder engagement

This section presents a summary of previous and current stakeholder engagement activities undertaken for the Project.

3.1.1 Reconnaissance site visit

A site reconnaissance visit was undertaken between 26 and 29 February 2024 by two SRK and two Geolab consultants, who were accompanied by one representative of Pak Yatirim and two from RNT. The objectives of the site visit were to:

- Undertake consultations with the local municipal authorities of Jamba, Cuvango and Chipindo, as well as PRODEL-EP (*Empresa Pública de Produção de Electricidade*) and representatives at Gove Dam to present the project, and inform them of the imminent ESIA process, household surveys and specialist fieldwork. Representatives of the national police and local companies were also present in the municipal authority meetings. During these meetings the project was presented and background information documents (BIDs) in Portuguese were provided to participants. Additional BIDs were left at the municipal offices for distribution to interested parties. A register of comments, questions and answers of these interactions was compiled;
- Identify the main environmental and socio-economic aspects to be considered in specialised studies;
- Identify the issues that will influence logistical planning and the mobilisation of specialists for fieldwork; and
- Receive initial comments on the project and obtain key information, such as the whereabouts of indigenous peoples.

3.1.2 Primary data collection

Geolab collected primary data between 18 and 21 March 2024. The methodology included a sampled household-level face-to-face survey in most of the affected villages within the AoI, coupled with stakeholder engagements in the form of key informant interviews. Data collected during the site visit focused on:

- New data on the socio-economic living conditions of the affected villages within the AoI.
- Ground-truthing existing data and determining the quality and coverage of this data.
- Undertaking site observations in areas where there is a need to have a deeper understanding of current baseline conditions.

The following activities were conducted to collect primary data (Geolab, 2024):

- Formal meetings with the municipal and communal administration and traditional leaders (*sobas* or *regedores*). During these meetings the project was presented and BIDs in Portuguese were provided to participants;
- Villages or towns to be surveyed or visited were selected using a map of the proposed powerline overlayed onto the known locations of villages. The sizes of the villages and their accessibility were also considered;
- Interviews with *sobas* to collect basic socio-economic information on village demographics, the number of households, livelihood activities, available services and infrastructure and other important information, such as qualitative inputs into perceptions of the project;
- Before the surveys were carried out, BIDs and a brief presentation of the project were provided in Portuguese. When necessary, it was translated into the local language, as not all heads of household are fluent in Portuguese;
- Surveys of a sample of households in each of the selected villages, using a predeveloped questionnaire. The aim was to survey at least four households per village, based on the location of the communities, accessibility and time available. Paper questionnaires were undertaken. The following themes were covered in the questionnaires:
    - Demographics;
    - Water, sanitation and energy;

- Land tenure and use;
- Nutrition;
- Health;
- Access to public services;
- Cultural heritage sites;
- Gravesites;

- Visits to sacred sites, infrastructure (such as wells) and social amenities (such as schools and health facilities) were undertaken;
- Requests were made from municipal authorities for basic information on the community profiles and master plans for various disciplines, to support the preparation of the ESIA; and
- The engagements not only aimed to gather basic socio-economic information, but it also provided an opportunity to build trust and establish relationships with the communities, which should continue throughout the life of the project.

Table 3-1 below provides an overview of the number of surveys administered to households and *sobas*, the dates of the surveys, and the municipalities under which the surveyed villages fall.

Table 3-1: Number and dates of surveys undertaken in Jamba, Cuvango and Chipinido

Municipality	Community	No. of household surveys	No. of *soba* surveys	Date
Jamba	Cacola	4	1	18 March 2024
	Lucunga A	4	1	
	Kuandja	4	1	
	Eyela	4	1	
	Morro I	4	1	
Cuvango	Km 50	4	1	19 March 2024
	Tchicunho	4	1	
	Aunge	4	1	
	Ngokue	4	1	
	Cavinga*	2	1	
Chipindo	Bairro 1º de Maio	4	1	20 March 2024
	Vingolo*	3	1	
	Buloteque	4	1	
	Capuca*	3	1	
	Oko*	2	1	21 March 2024
	Operário A	4	1	

**Fewer than four questionnaires were carried out in these villages because the houses were closed, or there were children and elderly people who were unable to answer the questionnaire, or the adults and heads of households were occupied by agricultural activities.*

4 Socio-economic context

Main works for the Project will be carried out in the northeastern region of Huíla Province where the majority of the OHL route is proposed. The route will start on the outskirts of Huambo Province where the Gove Hydro Dam is located.

Huíla is known for its natural beauty, particularly in the western region where the Serra da Leba mountain range separates it from the Namibe Province. It is reported that the province suffered damages during the War of Liberation (1961–1975) and subsequent Civil War (1975-2002) as well as the South African Border War (1966-1990) resulting in created the internal displacement of communities.

Large swathes of Angola are contaminated by landmines and remnants of explosives as a result of the country's protracted internal conflicts. This contamination has a significant socio-economic impact, particularly in rural areas, as it renders land which could be used for agriculture, housing and infrastructure inoperable. Both Huambo and Huíla provinces have been affected by landmine contamination. According to Mine Action Review, 435 landmines were destroyed in Huíla in 2022 while Huambo has been completely clear of landmines since 2021 pending official declaration (Mine Action Review, 2023).

Huíla had a population of about 2 819 253 people at the time of the 2014 census (INE, 2016). The province consists of 14 municipalities which include rural districts or communes that encompass the rural areas within the municipality. Communes typically consist of villages and agricultural lands. The OHL route will traverse the municipalities of Chipindo, Cuvango, sometimes referred to as Kuvango, and Jamba. It will supply electricity to three communes ("seats" or towns in the municipalities) along this route which bear the same name as the municipalities: Chipindo, Cuvango and Jamba.

Jamba Municipality has the largest population with 105 090 inhabitants, followed by the Municipality of Cuvango with 78 543 inhabitants and Chipindo Municipality with 64 714 inhabitants (Visite Huila, n.d.). Subsistence farming and livestock rearing are the predominant economic activities in these municipalities with some people also engaging in trade and Artisanal and Small-scale Mining (ASM) (Geolab, 2024)

There are several ethnolinguistic groups in Cuvango, Chipindo and Jamba with the main groups being the Umbundu and Nganguela. It is reported that the original inhabitants of the area were San. However, only a few residual groups remain today and, in some areas, they represent under 2% of the population (Visite Huila, n.d.).

More detail on the San people is provided in the SEIA prepared as part of this project.

5 Stakeholder mapping and analysis

Stakeholders are mapped and analysed to determine which stakeholder relations should be established, maintained or improved and what the approach to engagement should be. A mapping and analysis exercise of the stakeholders in the Project area must take place periodically or as the Project's risks change over time. The process to map and analyse stakeholders is outlined in the subsections below including the identification of vulnerable groups.

5.1.1 Objectives of stakeholder mapping and analysis

The objectives of the mapping and analysis exercise are to:

- Identify key stakeholders including vulnerable or disadvantaged peoples;
- Determine stakeholder needs and their expectations of the Project;
- Assess stakeholders' current perceptions of the Project;
- Ascertain stakeholders' level of interest in and/or level of influence on the Project, along with their current level of support for the Project;
- Identify strengths and weaknesses in past and current stakeholder engagement activities (e.g., which was done on nearby or similar Projects);
- Determine stakeholders' preferences for modes and frequency of engagement;
- Obtain feedback on the appropriateness of the proposed Grievance Mechanism;
- Gauge the possibility of opportunities for partnership and collaboration with stakeholders; and
- Identify requirements for implementing the SEP, including staffing and capacity-building requirements.

5.2 Stakeholder identification

A first step in the mapping and analysis exercise is to identify the stakeholders who will be informed and consulted about the Project.

The IFC[2] defines stakeholders as:

- Individuals, groups or local communities that could be **affected** by the Project, positively or negatively, and directly or indirectly; and
- Parties who may be able to **influence** the Project because of their legal mandate, knowledge and/or social or political influence.

Project stakeholders are categorised at the national, municipal and local levels as follows:

- National and / or regulatory authorities;
- State agents;
- Provincial government authorities;
- Municipal government authorities;
- Communal government authorities*;
- Traditional authorities (*soba grande* and *sobas*)*;
- PACs including directly affected land users (e.g. landowners, residents and small-scale farmers)
- Neighbouring land users; and
- CSOs including Non-governmental Organisations (NGOs) and Faith-Based Organisations (FBOs).

*Each communal administration has a further governance structure that oversees the villages/villages in each commune. This local governance structure is shown in Figure 5-1. Traditional authorities are located at three hierarchical levels, which officially translate today into the *regedor* (indicated as

[2] IFC (2012). Guidance Notes: Performance Standards on Social and Environmental Sustainability

"Governor" in the diagram below, also referred to as *soba grande*), the *soba* and the *sobeto / secúlo*. The *soba* is the chief in the villages. The *soba grande* (*regedor*) is the *soba* who leads the other *sobas* in the community. The territory where the *Regedor* exercises his power is called *Regedoria* and *Ombala* (in Umbundu). A *Regedoria* or *Ombala* is a group of villages or settlements.

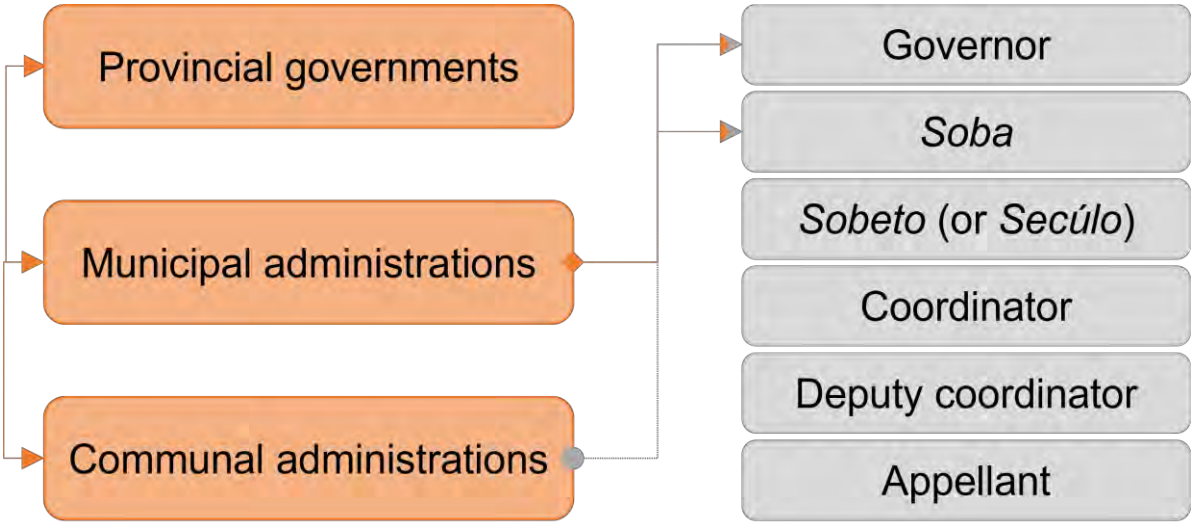


Figure 5-1: Diagram of the local government structure

Stakeholders were identified through a reconnaissance site visit and consultations by SRK and Geolab, field surveys by Geolab, the delineation of the Project's AoI, and desktop reviews of existing information on similar projects in the area.

A Stakeholder database template is provided in Appendix A. It is recommended that suggestions from stakeholders during imminent engagements are taken into account to update the stakeholder database. The Project stakeholders identified thus far are presented in Table 5-1.

Table 5-1: Identified Project stakeholders

Stakeholder category	Identified stakeholders
National and / or regulatory authorities	• MINEA • Ministry of Finance (MINFIN) • MINAMB • *Ministério da Agricultura e Florestas* / Ministry of Agriculture and Forestry (MINAGRIF) • Ministry of Social Action, Families, and the Promotion of Women (MASFAMU)
State agents	• RNT • National Energy Distribution Company / *Empresa Nacional de Distribuição de Electricidade* (ENDE) • State Electricity Generation Agency / *Empresa Pública de Produção de Electricidade* (PRODEL - EP) • National Police • Moçâmedes Railway
Provincial authorities	• Huíla Provincial Government • Huamba Provincial Government
Municipal authorities	• Jamba Municipality

Stakeholder category	Identified stakeholders
	• Chipindo Municipality • Cuvango Municipality • Dongo Municiaplity • Galangue Municipalty • Kalima Municipality
Commune authorities	• Jamba commune • Chipindo commune • Cuvango commune
Traditional authorities	• Mr Anibal Tsialo (*Soba grande*, Cacola) • Mr Paulo Tyamba (*Soba*, Lucunga A) • Mr José Cassanga Calulu (*Soba*, Kuandja) • Mr Constatino Rosário Tyamba (*Soba*, Eyela) • Mr Francisco Ndala Nyemo (*Soba*, Morro I) • Mr Pedro Tchindjamba (*Soba*, Km 50) • Mr Sabino Calungo (*Soba*, Tchicunho) • Mr Marcelino Manico (*Soba*, Aunge) • Mr Zacarias Bunanga (*Soba*, Ngokue) • Mr José Baptista Ntyamba (*Soba*, Cavinga) • Mr Paulino Lutiki (*Soba*, Bairro 1º de Maio) • Mr Manuel Capitango (*Soba*, Vingolo) • Mr Faustino Tchimbungo (*Soba*, Buloteque) • Mr Celestino Chivela Numa (*Soba*, Capuca) • Mr José Tchiconguele (*Soba*, Oko) • Mr António Matias João (*Soba*, Operário A) • Traditional Ombala Ya Nduma jurisdiction authorities (Ngokue Village)

PACs	• Villages in Jamba Municipality:
	  ○ Cacola
	  ○ Lucunga A
	  ○ Kuandja
	  ○ Eyela
	  ○ Morro I
	• Villages in Cuvango Municipality:
	  ○ Km 50
	  ○ Tchicunho
	  ○ Aunge
	  ○ Ngokue
	  ○ Cavinga
	• Villages in Chipindo Municipality:
	  ○ Bairro 1o de Maio
	  ○ Vingolo*
	  ○ Buloteque
	  ○ Capuca*

Stakeholder category	Identified stakeholders
	○ Oko* ○ Operário A
Neighbouring land-users (farms)	• Mumba • AgriCuvango • Kapunda
CSOs	• Rural Development Extension Programme • Programme to Promote and Strengthen Community Organisation • Integrated Municipal Intervention Programme • CarrinhoAgri Project • Local Development and Combating Poverty Programme • MOSAP II • Farmer Field Schools • Agrarian Development Institute • Agricultural Development Stations • Agricultural cooperatives and associations • Integrated Social Centres

5.3 Identification of vulnerable groups

Stakeholders who could experience adverse impacts from a project more severely than others are considered vulnerable or disadvantaged groups. Tailored engagement strategies are required to ensure that these stakeholders are meaningfully engaged and can effectively participate in the Project.

Vulnerable and disadvantaged groups in the Project area identified through field surveys conducted by Geolab are presented in Table 5-2. The categories of vulnerability are similar to those defined in the IFC PS 1 (refer to Section 2.1.1).

Table 5-2: Vulnerable / disadvantaged groups identified during field surveys

Vulnerable / disadvantaged group	Potential impact on vulnerability	Recommended engagement strategies
Women and elderly	• Limited understanding of Portuguese among women and elderly could hinder their ability to understand important Project information and meaningfully participate in the Project. • Increased gender marginalisation in communities where women may have limited decision making powers. • Widows who are heads of households could unintentionally be overlooked in the consultation process. • Engagements normally occur during working hours when women might be preparing agricultural fields, harvesting, collecting water, washing clothes, or bathing.	• Provide visuals and simple text in Umbundu/Nganguela and Portuguese whenever consultations are done to ensure that women and the elderly are equally informed about important project activities. • Ensure elderly and adult female members of the household are present when any engagements related to displacement compensation, employment opportunities and financial management, take place. • Ensure the Grievance Mechanism is accessible by women and elderly (preferably in Umbundu/Nganguela) and allow for verbal reporting of grievances.
Community members without security of tenure and physically or economically displaced PAPs	Most households in the PACs do not have security of tenure as their homesteads and fields have been inherited or provided by *sobas* without records thereof. This makes them vulnerable to exploitation by officials or other parties when being consulted, particularly when it comes to compensation.	• Offer an equal opportunity to know of, understand, use, and receive recourse through the Grievance Mechanism. • Conduct capacity building with municipal administrators and *sobas* on the importance of fair compensation as defined in the LARF.
Migrant / internally displaced community members (i.e. community members who have migrated to the project-affected villages after the civil war)	Community members, *sobas*, or government officials might inadvertently dismiss the need to meaningfully consult internally displaced people or involve them in local recruitment if they have not fully integrated into the community.	• Ensure that community members who were not born into the affected villages are not overlooked in terms of Project benefits and participating in consultations and engagements. • Raise awareness of application opportunities beforehand with the support of local municipal administrators and *sobas* to ensure that applicants can prepare the relevant documents. • Conduct capacity building with municipal administrators and *sobas* on the importance of inclusivity and non-discrimination of internally displaced people.

Vulnerable / disadvantaged group	Potential impact on vulnerability	Recommended engagement strategies
Disabled persons	Disabled persons in the PACs include: • People with lower-limb disabilities resulting from armed conflict • Children with paralysis caused by polio • Elderly people with paralysis caused by strokes Disabled individuals are often not mentioned as part of a household which could result in them being excluded from consultations and stakeholder engagements. These individuals may also be discouraged from participating in SE activities (e.g. community meetings) if the venues are inaccessible to them.	• Provide necessary support to disabled individuals where any movement is required to attend consultations and engagements, such as transport. • Ensure that, when any engagements related to displacement compensation, employment opportunities and financial management, take place, all adult members of the household are present.
Indigenous San groups	The field surveys found that San groups reside south of the Project-affected area, specifically in the Cuvango and Jamba municipalities. Current widespread discrimination or inadvertent exclusion of San groups could limit their ability or willingness to participate in Project-related activities if engagements are necessitated with them.	• Liaise with the local municipal administration of Cuvango which has intelligence on the San groups' whereabouts to determine the engagement structures to be followed if any consultations are required. • Consult San groups in a separate forum and in a location that is distant from Bantu communities as they might not feel comfortable joining a "normal" community meeting. • Conduct engagements in the !Kung language spoken by the San people • Offer an equal opportunity to know of, understand, use, and receive recourse through the Grievance Mechanism. • Ensure compliance with IFC PS 8 during ongoing engagements with San people in the project area of influence. • Ensure compliance with IFC PS 2 and the relevant ILO conventions where indigenous people are recruited and employed in any component of the project.
Artisanal miners	Although ASM is regarded as illegal in the Project AoI, some artisanal miners observed close to the project area were locals from the PACs. Artisanal miners' vulnerability could increase due to abuse by security.	Conduct stakeholder engagement prior to site establishment to ensure that there is widespread awareness of the land that is in RNT's possession and that will be used for the transmission line (or ENDE's land for the distribution network).

Vulnerable / disadvantaged group	Potential impact on vulnerability	Recommended engagement strategies
Project Affected Peoples (PAPs) / Project Affected Households (PAHs) i.e. people displaced by Project	Displacement could exacerbate PAPs and PAHs existing vulnerabilities and introduce new vulnerabilities including: • Poverty and economic instability due to loss of livelihoods • Emotional distress caused by loss of social networks • Exposure to poor living conditions resulting from inadequate resettlement sites and replacement housing	• Engage PAP and PAHs prior to displacement to determine existing vulnerabilities. • Ensure that, when any engagements related to displacement and compensation take place, all adult members of the household are present. • Provide visuals and simple text in Umbundu/Nganguela and Portuguese whenever consultations are done to ensure that women and the elderly are equally informed about important project activities.
Unemployed persons in municipal centres	Unemployed persons might be employed during the construction phase, but this will likely be temporary and for general work. Very few might be absorbed permanently, if they are skilled and if opportunities are available.	• Provide visuals and simple text in Umbundu/Nganguela and Portuguese whenever consultations are done to ensure that all job seekers are equally informed about opportunities. • Ensure the Grievance Mechanism is accessible in the municipal centres and allow for verbal reporting of grievances.
Individuals/groups that are economically or socially marginalised due to their historical pasts, or political or social beliefs	Community members, *sobas*, or government officials might inadvertently dismiss the need to meaningfully consult socially marginalised people or involve them in local recruitment due to their political, cultural or religious affiliations being in the minority or not in line with that of the current authorities.	• Provide visuals and simple text in Umbundu/Nganguela and Portuguese whenever consultations are done to ensure that all stakeholders are equally informed and can make contributions on the project. • Ensure the Grievance Mechanism is accessible on anonymous platforms.

5.4 Mapping and analysis of project stakeholders

Stakeholders are evaluated against three key criteria to establish the level of effort (time and resources) to be allocated to engagements, namely: level of influence/interest; level of support; and priority of engagement. Usually, the stakeholders who are most affected by and/or have the greatest level of influence over a project require the most substantial engagement effort. The criteria are defined as follows:

- Level of influence: The level of influence that a stakeholder has or may have on the Project and/or its reputation;
- Level of interest: The level of interest that a stakeholder has in the Project's operations; and
- Level of support: The level of alignment between the Project and stakeholder's values/interests which equates to the level of support that the stakeholder has for the Project.

A scale from 1 to 3 is used to derive a rating for each attribute where 1 represents a low level, 2 represents a medium level and 3 represents a high level. Therefore, the higher the score, the higher the priority should be to engage a particular stakeholder – they can halt or delay the Project, become a partner for successful Project implementation, and/or impact the Project or the Proponent's reputation.

The criteria and rating scales, for the stakeholder mapping are presented in Table 5-3, along with the resultant approach to be used when engaging the stakeholder.

Table 5-3: Stakeholder mapping rating criteria

Criterion	Rating		
	Low (1)	Medium (2)	High (3)
Level of influence	The stakeholder has limited ability to influence the Project and/or its reputation.	The stakeholder has moderate ability to influence the Project and/or its reputation.	The stakeholder can substantially influence the Project or influence its reputation.
Level of interest	The stakeholder is detached and/or has limited interest in the Project.	The stakeholder has a moderate interest in the Project.	The stakeholder has a strong interest in the Project.
Level of support	The stakeholder strongly supports or is positive towards the Project.	The stakeholder has a neutral attitude or moderate level of support toward the Project.	The stakeholder has limited support for the Project or has a negative sentiment towards it.
Score	**3**	**4-6**	**7-9**
Approach	The only engagement required is to provide information to the stakeholder on a periodic basis, such as biannually.	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities.

5.4.1 Updating the stakeholder matrix

A stakeholder matrix is provided in Table 5-4. This stakeholder matrix must be updated regularly to ensure that ratings and the engagement approach remain relevant and appropriate. For instance, all *sobas* of affected villages are listed and are currently rated as having the same levels of influence, interest, and support. However, over time, some *sobas'* levels of support might change, and this would have to be accounted for in the SEP in terms of an adjusted engagement strategy.

New stakeholders may be identified or added over time as the Project expands and/or the socio-cultural, economic and political environment changes. Their current perceptions, expectations, priorities and concerns may change due to changes in the nature or stage of the Project, uncontrollable external events such as conflicts or communicable diseases, or Project-related environmental or social incidents.

Therefore, one of the requirements of the SEP is that the stakeholder mapping and analysis must be reviewed and revised on a periodic basis to determine whether any changes have occurred, either due to contextual factors or to actions undertaken by the Project.

Table 5-4: Stakeholder matrix for the Cassinga Power Supply Project (to be updated annually)

Stakeholder group	Level of influence	Level of interest	Level of support	Approach
National government / regulatory authorities				
MINAMB	3	3	1	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities.
MINEA	3	3	1	
MINFIN	3	3	1	
MINAGRIF	3	3	2	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
MASFAMU	3	3	2	
State agents				
RNT	3	3	1	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities.
ENDE	3	3	1	
PRODEL-EP	3	3	1	
National Police	2	1	2	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
Moçâmedes Railway	1	1	1	The only engagement required is to provide information to the stakeholder on a periodic basis, such as biannually.
Provincial government				
Huíla Provincial Government	3	3	1	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities
Huambo Provincial Government	2	2	1	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities
Municipal government				
Cuvango Municipality	2	3	1	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
Chipindo Municipality	2	3	1	
Jamba Municipality	2	3	1	
Dongo Municipality	1	2	2	
Galangue Municipality	1	2	2	
Kalima Municipality	1	2	2	

Stakeholder group	Level of influence	Level of interest	Level of support	Approach
Cuvango Municipal Directorate of Culture	1	1	1	The only engagement required is to provide information to the stakeholder on a periodic basis, such as biannually.
Commune authorities				
Cuvango commune	1	3	1	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
Chipindo commune	1	3	1	
Jamba commune	1	3	1	
Traditional authorities				
Mr Anibal Tsialo, Soba grande (Cacola)	2	3	2	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities.
Mr Paulo Tyamba, Soba (Lucunga A)	2	3	2	
Mr José Cassanga Calulu, Soba (Kuandja)	2	3	2	
Mr Constatino Rosário Tyamba, Soba (Eyela)	2	3	2	
Mr Francisco Ndala Nyemo, Soba (Morro I)	2	3	2	
Mr Pedro tchindjamba, Soba (Km 50)	2	3	2	
Mr Sabino Calungo, Soba (Tchicunho)	2	3	2	
Mr Marcelino Manico, Soba (Aunge)	2	3	2	
Mr Zacarias Bunanga, Soba (Ngokue)	2	3	2	
Mr José Baptista Ntyamba, Soba (Cavinga)	2	3	2	
Mr Paulino Lutiki, Soba (Bairro 1º de Maio)	2	3	2	
Mr Manuel Capitango, Soba (Vingolo)	2	3	2	

Stakeholder group	Level of influence	Level of interest	Level of support	Approach
Mr Faustino Tchimbungo, Soba (Buloteque)	2	3	2	
Mr Celestino Chivela Numa, Soba (Capuca)	2	3	2	
Mr José Tchiconguele, Soba (Oko)	2	3	2	
António Matias João, Soba (Operário A)	2	3	2	
PACs				
Cacola	2	3	2	The stakeholder must be informed, consulted, involved and collaborated with on a regular basis and/or as required for specific issues or activities.
Lucunga A	2	3	2	
Kuandja	2	3	2	
Eyela	2	3	2	
Morro I	2	3	2	
Km 50	2	3	2	
Tchicunho	2	3	2	
Aunge	2	3	2	
Ngokue	2	3	2	
Cavinga	2	3	2	
Bairro 1º de Maio	2	3	2	
Vingolo	2	3	2	
Buloteque	2	3	2	
Capuca	2	3	2	
Oko	2	3	2	
Operário A	2	3	2	
Neighbouring land users				
Mumba	1	2	2	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
AgriCuvango	1	2	2	

Stakeholder group	Level of influence	Level of interest	Level of support	Approach
Kapunda	1	2	2	
CSOs / NGOs / Government support programmes				
Rural Development Extension Programme	1	3	2	The stakeholder must be informed, consulted and involved in the Project on a regular basis and/or as required for specific issues or activities.
Programme to Promote and Strengthen Community Organisation	1	2	2	
Integrated Municipal Intervention Programme	1	2	2	
CarrinhoAgri	1	2	2	
MOSAP II	1	2	2	
Farmer Field Schools	1	2	2	
Agrarian Development Institute	1	2	2	
Agricultural Development Stations	1	2	2	
Agricultural cooperatives and associations	1	2	2	
Local Development and Combating Poverty Programme	1	2	2	

6 Stakeholder engagement activities

Relationships were established with stakeholders through the ESIA phase. It is important that these are maintained, and that stakeholder engagement is continued during the construction and operational phases of the Project lifecycle.

6.1 Engagement methods

The engagement methods proposed have been selected to ensure inclusivity and participation from stakeholders with varying literacy levels, cultural and gender norms, physical access, and language capabilities. The methods include either or a combination of:

- In-person meetings:
  - One-on-one meetings (can also take place virtually, if suitable);
  - Group meetings (e.g. community, committee/forum, public, or household meetings)
- Workshops;
- Open houses; and
- Emails, phone calls, SMS and/or telecons/virtual meetings for those with access to these methods and when one-way communication is appropriate, such as certain governmental administration stakeholders.

Consultation activities should be recorded in the stakeholder engagement log attached as Appendix B. This will ensure that records are kept of engagements undertaken, including the stakeholders consulted, any key issues raised, and commitments made to stakeholders. The information captured in this log can be used to review trends and areas of improvement for stakeholder engagements during the monitoring and evaluation of the SEP.

6.2 Stakeholder engagement action plan

A detailed engagement programme is provided in Table 6-1. For each Project phase, the plan identifies what engagement activities need to occur and which stakeholders should be engaged. It includes the frequency of the engagement and the engagement methods (i.e. how the engagement will occur) which take into account the needs of vulnerable people. The plan also considers the logistics involved in the engagements and the key personnel responsible for carrying them out.

It is important to note that a separate SEP (Resettlement SEP or “RSEP”) should be prepared if any displacement occurs as a result of the project, including physical resettlement and economic (livelihood) impacts. Such an RSEP is discussed in the LARF that has been prepared as part of the ESIA for this Project.

Table 6-1: Stakeholder engagement action plan for the pre-construction, construction and operational phases

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
Pre-construction					
Present key findings from the ESIA process including the outcomes of the specialist studies, impacts assessed, project benefits, LRP/RAP, cultural heritage/ sacred areas, ecosystem services, gender and design, disclosure of the Emergency Preparedness and Response Plan, traffic and cumulative impacts	• PACs • Traditional authorities • Municipal and Commune government authorities • Regulatory authorities	• In-person community meetings • Open houses • Telecons/ virtual meetings with government authorities	• Once-off for impact assessment outcomes • Follow-up engagements might be required for refinement of management plans	• Meeting agenda • Project presentation • Posters and maps displaying information and visuals from ESIA and all management plans • Meeting minutes • Visuals and simple text in Umbundu, Nganguela and Portuguese	• Pak Yatirim •
• Project presentation including OHL alignment route, Project timing and safety and security considerations • Publicise the grievance mechanism • Publicise management plans relevant to external stakeholders such as the Waste Management Plan	• PACs • Traditional authorities • Municipal and Commune government authorities • Regulatory authorities	• In-person community meetings • External stakeholder workshops • Awareness posters • Telecons/ virtual meetings with government authorities	Once-off	• Meeting agenda which allows time for raising grievances and providing feedback on progressing or closed-out grievances • Project presentation • Meeting minutes • Information leaflets on grievance mechanism • Visuals and simple text in Umbundu, Nganguela and Portuguese	• Pak Yatirim • Contractor
Identify farmland and community resources to avoid during construction	• Municipal and Commune government authorities • Traditional authorities	• In-person meetings with traditional authorities • Emails, phone calls, SMS and/or telecons/virtual meetings with local government authorities where possible	Once-off prior to site establishment	• Meeting agenda • Presentation • Maps displaying proposed OHL route alignment and construction footprint • Meeting minutes	• Pak Yatirim • Contractor

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
				• Visuals and simple text in Umbundu, Nganguela and Portuguese	
Determine locations of lighting in municipal centres	Women	Focus group discussions in local languages	Once-off	• Meeting agenda • Presentation • Maps and visuals to suggest where night lighting is best placed • Visuals and simple text in Umbundu, Nganguela and Portuguese	• Pak Yatirim • RNT
Identify locations for site establishment to maintain access to resources (water, land and forests)	• Sobas • Municipal and Commune government authorities	Focus group discussions in local languages	Once-off per municipal area	• Meeting agenda • Presentation • Maps and visuals to discuss where sites could be best placed • Visuals and simple text in Umbundu, Nganguela and Portuguese	• Pak Yatirim • Contractor
Identify sacred sites which should be avoided during construction	• Sobas • Municipal and Commune government authorities	Focus group discussions in local languages	Once-off per municipal area	• Site visit • Meeting agenda • Presentation • Maps showing where suspected sacred sites are	• Pak Yatirim • Contractor
Identify any existing agricultural projects, institutes or facilities which could be leveraged during the construction period, when the highest land-based impact is expected	• Agricultural projects, institutes or facilities in AoI • Municipal and Commune government authorities	Emails, phone calls, SMS and/or telecons/virtual meetings	As needed	List of existing agricultural projects, institutes or facilities to be leveraged	Pak Yatirim
Identify strategies for managing ASM activities in the AoI	• National Police • Provincial, Municipal and Commune	• Emails, phone calls, SMS and/or telecons/ virtual meetings	Once-off	ASM management strategies	Contractor

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
	government authorities				
Determine engagement structures to be followed for consultations with San Groups (if needed)	• Municipal and Commune government authorities • MASFAMU	• Emails, phone calls, SMS and/or telecons/ virtual meetings	Once-off	San Group engagement structures	• Pak Yatirim • Contractor
Obtain local skills and SMME databases to determine local skill sets available for construction activities	Municipal and Commune government authorities	Emails, phone calls, SMS and/or telecons/virtual meetings	Once-off	Local skills and SMME databases	Contractor
• Communicate employment and local procurement opportunities that will be available to PACs during construction • Identify suitable advertisement methods to ensure widespread dissemination	• Municipal and Commune government authorities • Traditional authorities	• In-person meetings with traditional authorities • Emails, phone calls, SMS and/or telecons/ virtual meetings	Once-off, prior to site establishment to ensure that applicants can prepare the relevant documents	• Meeting agenda • Presentation • Meeting minutes	Contractor
Sexual health awareness and education to abate the impacts of unplanned pregnancies which could arise due to the influx of construction workers	PACs	• Passive awareness media (e.g. posters and pamphlets) • Focused engagements with San women (if needed)	Once-off	• Awareness/ educational posters and / or pamphlets • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used	• Pak Yatirim • Contractor
Receive external communications	Stakeholders in AoI	• In-person community meetings • Emails, phone calls, SMS and/or telecons/ virtual meetings with government authorities • Suggestion box • Grievance mechanism	Ongoing	• External communication (such as comments, feedback, and questions) should be taken down in minutes or registers during in-person meetings	• Pak Yatirim • Contractor

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
Construction Phase					
• Notify and continually inform stakeholders of planned construction activities, progress and changes • Receive external communications (suggestions, comments, complaints, grievances) from stakeholders • Communicate the importance of the Project in the long term • Update stakeholders on waste management practices associated with construction	Stakeholders in AoI	• In-person community meetings • Emails, phone calls, SMS and/or telecons/ virtual meetings with government authorities • Suggestion box • Grievance mechanism	• Monthly in the first six months, then quarterly until construction is completed • Suggestion boxes to be checked daily	• Meeting agenda which allows time for raising grievances and providing feedback on progressing or closed-out grievances • Project progress presentation • Meeting minutes • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used • External communication (such as comments, feedback, and questions) should be taken down in minutes or registers during in-person meetings	Contractor
Formal project updates	• Provincial, Municipal and commune authorities • Representatives of PACs • Selected CSOs • Stakeholders in AoI	• Hardcopy newsletter • Email and website newsletter	• Every six months	• Project newsletter available in hard copy and online	• Pak Yatirim • Contractor
Workshop the Grievance Mechanism	• Provincial, Municipal and commune authorities • Representatives of PACs • Selected CSOs	• External workshop to facilitate understanding and awareness of the Grievance Mechanism	Once-off	• Workshop agenda and presentation • Minutes from the workshop • Public awareness campaign strategy to publicise the Grievance Mechanism	• Community Liaison Officer (CLO) • Stakeholder Engagement Manager (SEM)

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
				• Visuals and simple text in Umbundu, Nganguela and Portuguese should be used	
Publicise the Grievance Mechanism	Stakeholders in AoI	Public awareness campaigns	Throughout construction phase	• Print media such as posters • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used • Face-to-face engagements with CLO	• CLO • SEM
Advertise local procurement and job opportunities	Stakeholders in AoI with priority given to PACs	• Print media such as posters • Radio	As needed	• Radio advertisements, printed posters • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used	Contractor
Involve stakeholders in Monitoring and Evaluation (M&E) activities to determine whether SEP and Grievance Mechanism is functioning appropriately	Representatives of PACs, traditional authorities, local government, CSOs	• Telecons/ virtual meetings • In-person meetings if required	As defined in Section 10	M&E Committee	• CLO • SEM
Consult the relevant municipal or provincial traffic administrations for the relevant support e.g. place speed limit signage and limit road access	Municipal and/or Provincial traffic administrations	Emails, phone calls, SMS and/or telecons/ virtual meetings	As needed	Relevant traffic signage (e.g. speed limit signage and road access limits)	Contractor
Explain status of project and provide information about operation phase	• Provincial, Municipal and commune authorities • Representatives of PACs • Selected CSOs • Stakeholders in AoI	In-person meetings	Once-off, three months before operational phase commences	• Meeting agenda • Presentation • Meeting minutes	• Pak • RNT

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
Operational Phase					
• Notify and continually inform stakeholders of new activities along the OHL route including maintenance activities • Receive external communications (suggestions, comments, complaints, grievances) from stakeholders • Provide relevant waste management information to stakeholders	Stakeholders in the AoI	• Telecons/ virtual meetings • In-person meetings if required • Grievance mechanism • Suggestion boxes (if project changes are required, such as expansions, infrastructure relocations, or removals)	As needed	• Meeting agenda and presentation • Minutes of meeting • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used • External communication (such as comments, feedback, and questions) should be taken down in minutes or registers during in-person meetings	• RNT • MINEA
Publicise Grievance Mechanism	Stakeholders in the AoI	Public awareness campaigns	• As needed • Periodically to remind SHs of its ongoing availability	• Print media (such as posters) • Visuals and simple text in Umbundu, Nganguela and Portuguese should be used	• RNT • MINEA
Involve stakeholders in M&E activities to: • Determine whether SEP and Grievance Mechanism are functioning appropriately • Participate in monitoring and observations for anything out of place along the powerlines	Representatives of PACs, traditional authorities, local government, CSOs	• Telecons/ virtual meetings • In-person meetings if required	As defined in Section 10	M&E Committee	• RNT • MINEA
Communicate local procurement and job opportunities	• PACs	• Print media such as posters	As needed	Radio advertisements, printed posters and RNT website	• RNT • MINEA

Engagement	Stakeholders to engage	Method/s of engagement	Frequency	Logistics / deliverables	Responsible
	• Traditional authorities • Municipal and Commune government authorities	• Radio • Website			

7 Grievance management

This section contains the processes and procedures for managing grievances[3] raised by stakeholders and establishing a Grievance Mechanism.

Effective grievance management is essential for maintaining a constructive dialogue with Project stakeholders. It ensures that the negative impacts and social risks to the Project are addressed timeously, promptly and suitably. Effective M&E of the performance of a Grievance Mechanism will lead to proactive (instead of reactive) impact management, and should, eventually, lead to a reduction in repeat grievances. The objectives of a Grievance Mechanism are to:

- provide stakeholders with a fair and transparent process to submit Project-related grievances;
- allow stakeholders to obtain a resolution and remediation to their grievances without financial cost or fear of retaliation;
- agree on suitable and mutually acceptable remedial actions through dialogue and negotiation with complainants;
- swiftly implement remedial actions to minimise unwanted impacts and prevent escalation of the source of the grievance;
- acknowledge receipt of grievances and keep complainants abreast of progress in their resolution;
- ensure that grievances are registered, logged, recorded and tracked in a systematic and trackable fashion; and
- monitor trends in grievances to assess the effectiveness of the Project's environmental and social management plans (of which this SEP is one) and their implementation, to make the required changes or improvements where needed.

It is important to note that a separate Grievance Mechanism should be established if any displacement occurs as a result of the project, including physical resettlement and economic (livelihood) impacts. Such a Grievance Mechanism is discussed in the LARF that has been prepared as part of this Project ESIA.

7.1 Publicising the Grievance Mechanism

A Grievance Mechanism can only be effective if external stakeholders understand the purpose and limits thereof, how it works, and how they can access it. Similarly, internal stakeholders who are involved in the implementation of the Mechanism and the resolution of grievances should understand how it functions.

To ensure that internal and external stakeholders are aware of the Grievance Mechanism and how it functions, it is recommended that workshops and awareness campaigns are conducted as described below:

- **Internal stakeholder workshops**: The objective of these workshops is to build staff members' awareness of the Mechanism, thus fostering internal understanding and ownership thereof, and to ensure that the required support for the grievance management process is provided. The workshops should be held with on-site Project staff members (e.g., Community Liaison Officer [CLO] and contractors during the construction stage);
- **External stakeholder workshops**: These workshops should be held with relevant Provincial, Municipal and commune authorities and representatives of directly and indirectly impacted communities and selected CSOs. This will not only facilitate understanding and awareness of the Grievance Mechanism, but will also leverage these key stakeholders' standing to support the sharing and understanding thereof with impacted communities; and

[3] "Grievances" include project affected stakeholders' (especially communities') concerns and complaints (IFC, 2009)

- **Community awareness campaigns**: During the abovementioned workshop, a strategy for raising awareness about the Grievance Mechanism should be developed to establish the most effective way of building awareness, understanding and acceptance of the procedure.

7.2 Grievance management process

This Grievance Mechanism is informed by IFC PS1, EP 6, and the UNGPs Principle III (GP III). It takes into account the presence of vulnerable groups (such as those with low levels of literacy) and prefers in-person interaction with complainants using Portuguese and Umbundu/Nganguela to ensure that decisions and outcomes are thoroughly understood.

During construction, CLOs will be key to collecting and recording the grievances. The process has eleven steps, outlined in Figure 7-1 and described in Table 7-1. Additional details for the categorisation and prioritisation of grievances (among others) are provided in **Appendix C**.

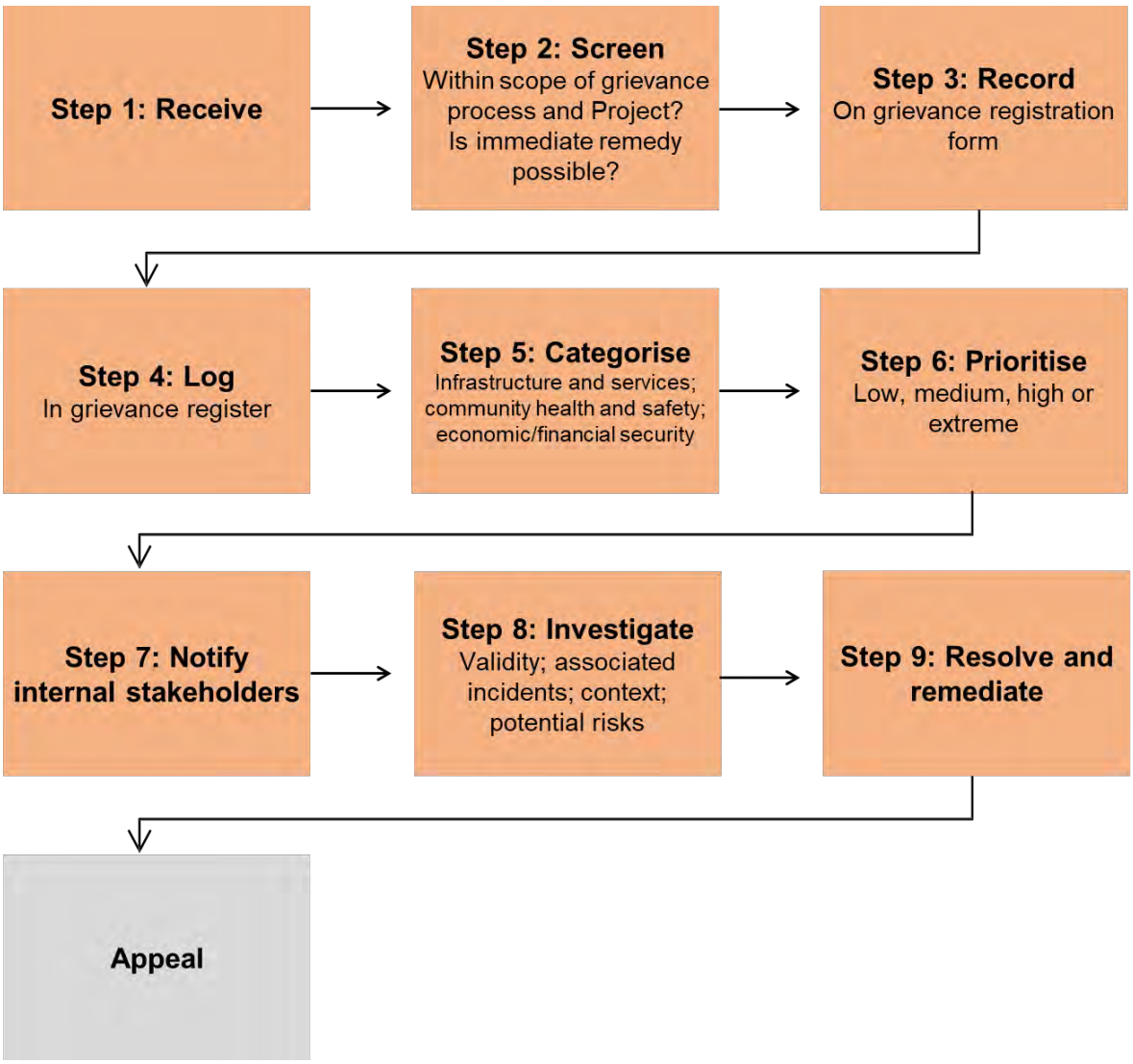


Figure 7-1: Grievance management process

Unless specified otherwise, the actions in the table below are taken by the CLO.

Table 7-1: Grievance management steps

Step	Actions
1. Receive grievance	CLO receives grievances: • in person on site; • in person at meetings; or • via a toll-free telephone hotline

2. Screen grievance	• Screen grievance as inside or outside Project and Grievance Mechanism scopes
	• **If inside scope,** follow *Step 3* onwards.
	• **If outside scope:**
	  ○ Close out grievance through verbal discussion with complainant
	  ○ Direct complainant to more appropriate channel
	• Log grievance in grievance register (**Appendix D**)

3. Record grievance	• Record grievance on grievance registration form (**Appendix E**) or grievance close-out form (**Appendix F**) if it can be resolved immediately • Let complainant and witness sign or fingerprint form • Verbally explain next steps to complainant • Give copy of completed grievance registration form to complainant • Scan and save form on secure cloud-based platform • File hardcopy at Project office

4. Log grievance	• Log grievance in grievance register (**Appendix D**) within twelve hours of being recorded
	• If related to near misses, substantial or urgent social, environmental and/or security risks:
	  ○ Flag immediately to the relevant department(s); and
	  ○ Log in grievance register within two hours of it being recorded

5. Categorise grievance	Categorise grievance on grievance register, and registration and close-out form as: • *infrastructure and services;* • *community health and safety;* • *economic/financial; and/or* • *security.*
6. Prioritise grievance	• Prioritise grievance on grievance register, and registration and close-out form as Low, Moderate, High or Extreme • Take note of resolution times of each level • If extreme, report to management within two hours

Step	Actions	
7. Notify internal stakeholders	• CLO reports grievances to Stakeholder Engagement Manager (SEM) daily • SEM reports urgent grievances to management	

8. Investigate grievance	• Investigate grievance within timeframe assigned in earlier step to determine:
	  ○ Validity;
	  ○ Associated incidents;
	  ○ Context (e.g., Project, community, political, economic); and
	  ○ Potential risks
	• Record findings from investigations in:
	  ○ Grievance register; and
	  ○ Grievance investigation report.
	• Submit report to SEM and management (if required)	

9. Resolve grievance	**Invalid grievance:**
	• Draft response letter (**Appendix G**) with reasons for invalidity;
	• Let SEM sign letter;
	• Discuss letter contents verbally with complainant and witness;
	• Complete close-out form;
	• Provide hardcopy of form to complainant;
	• Complainant signs or fingerprints form;
	• Scan digital copy;
	• Upload to secure cloud-based storage;
	• File hardcopy on site; and
	• Log issuance of response letter in grievance register.
		Valid grievance:
		• Grievance Resolution Committee (GRC) reviews grievance and investigation results;
		• GRC proposes remediation measures such as:
		  ○ rehabilitation;
		  ○ restoration; and/or
		  ○ compensation.
		• Document remediation in response letter (**Appendix G**);
		• Submit to complainant and explain verbally with witness present;
		• If satisfied, complainant signs close-out form and CLO stores copies as above;
		  ○ Log issuance of response letter in grievance register;
		  ○ Track remediation; and
		  ○ Assess effectiveness of remediation.
		• If not satisfied, engage complainant to determine reasons for dissatisfaction;
		  ○ Appeal brought to Grievance Appeal Committee (GAC); and
		  ○ All steps under “Valid grievance” above are followed, but GRC is replaced by GAC.
		  ○ If still not satisfied, advise that there is no further appeal process;
		  ○ Advise complainant to seek redress through other channels; and
		  ○ Record this outcome in grievance register and report to GRC and GAC

Ancillary steps to be followed periodically:		
10. Review and evaluation of Grievance Mechanism	• Request feedback from stakeholders quarterly in year one; and • Record.	

Step	Actions
	• Request feedback from stakeholders quarterly in year two onwards; and • Record

11. Reporting	• CLO to compile weekly, monthly, quarterly and annual grievance reports on:
	  ○ number, categories and priority levels of grievances;
	  ○ number of closed-out, in progress and unresolved grievances;
	  ○ remediation measures;
	  ○ analysis of trends; and
	  ○ recommendations.
	• Submit to SEM; and
	• SEM to incorporate grievance reports to management.

It is recommended that a GRC be established (Table 7-1, Step 9, *Resolve grievance*). This will allow for the various priority levels of grievances to be investigated in the required timeframes. This committee should comprise the SEM, SES, CLO(s), the Safety, Health, Environment, Risk, and Quality (SHERQ) Head (if required); the Site/Contracts Manager during construction (if required) or the General/Operations Manager during operational phase (if required), any relevant Heads of departments that might be involved in the grievance, and a Company (Pak Yatirim or RNT, as appropriate for the phase of the Project) representative (if required).

It is also recommended that a GAC (Table 7-1, Step 9, *Resolve grievance*) **is established for grievances that are escalated for review and resolution**. Reputable and independent external stakeholders could be included in this GAC as required to impartially facilitate the resolution of grievances.

8 Resources and responsibilities

The roles and responsibilities of the relevant personnel that will manage stakeholder engagement in the various stages of the Project are detailed in Table 8-1 below.

Table 8-1: Roles and responsibilities of relevant personnel managing stakeholder engagement

Personnel and role	Responsibilities
SEM The SEM oversees all aspects of the Project related to stakeholder and/or community engagement and often social performance	• Oversee all stakeholder engagement activities undertaken for the Project • Prepare and manage all messaging for stakeholder engagement activities, including meetings, presentations, workshops, and campaigns • Ensure that the SEP is implemented correctly • Ensure that the Grievance Mechanism is implemented as defined • Escalate high- and urgent-priority grievances to management and other relevant departments, such as SHERQ, legal or HR • Chair the GRC and identify appropriate remedial measures for resolving grievances • Sit on the GAC and contribute to the resolution of unresolved grievances • Periodically assess and review the SEP and Grievance Mechanism to determine their effectiveness and determine if any alterations are required • Attend meetings, workshops and other engagements with provincial and national government authorities, if needed • Monitor the implementation of the SEP and Grievance Mechanism to ensure that the correct principles, processes and procedures are being followed • Support the CLOs to ensure that all stakeholder activities undertaken align with the stakeholder engagement action plan in the SEP • Monitor CLOs' record-keeping activities to ensure compliance with the requirements of the SEP • Ensure that high and urgent priority grievances are escalated to management • Identify areas of improvement or adjustment of the SEP and Grievance Mechanism
CLO The CLO is mainly responsible for the implementation of the SEP and Grievance Mechanism. They are primarily responsible for engaging and communicating with external stakeholders, such as neighbouring communities. The CLO also implements the Grievance Mechanism and ensures that it is understandable to all stakeholders, including vulnerable groups.	• Implements the Stakeholder Engagement Action Plan (Section 6.2), by planning and scheduling engagements; notifying stakeholders of engagements; preparing presentation materials based on messaging approved by the SD Manager; following required protocols for the provision of refreshments and transport; keeping records and reporting on engagements • Identify, develop and maintain constructive relationships with impacted communities and other external stakeholders • Implements the Grievance Mechanism • Continually creates awareness among external stakeholders of the Grievance Mechanism • Reports high and urgent priority grievances to the SEM • Contributes to identifying grievance remedial measures • Attends all meetings, workshops, and other relevant engagement activities undertaken with external stakeholders, such as neighbouring communities, local authorities, and committees • Attends any other public meetings that could affect the Project • Acts in an approachable manner to build constructive relationships with stakeholders

Personnel and role	Responsibilities
	• Shares information in an open and transparent manner and acts respectfully during all engagements • Identifies opportunities for sharing positive Project impacts with stakeholders • Monitor and report community needs and trends to the SEM • Support partnerships with stakeholders such as government departments and non-governmental organisations • Enhance stakeholders' capacity to identify unanticipated Project impacts by ensuring that they are kept up-to-date and informed of Project activities • Provide input into grievance resolution
Administrator The Administrator provides administrative and logistical support to the SD Department (or equivalent)	• Assist CLOs in scheduling stakeholder meetings • Create and update databases and registers, if support is required by the CLO • Submit timely reports and contribute to preparation of communication materials, as required • Track media coverage of Project • Receive documents and correspondence from visitors to the Project and distribute accordingly

9 Information management

A data management system must be developed to capture and track relevant information on stakeholders, engagement activities, and grievances.

The following tools need to be put in place:

- A stakeholder database (a template is provided in **Appendix A**):
  - Relevant information on individual, community and organisational stakeholders;
  - Ratings assigned to individual, community and organisational stakeholders during stakeholder mapping (see Section 5.4);
  - Where relevant, links to the grievance and commitments registers
- Engagement activities log (a template is provided in **Appendix B**):
  - Record of all stakeholder engagement activities undertaken (including type of engagement, date, venue, stakeholders engaged, objectives of engagement, etc.);
  - Links to engagement records, such as photographs, audio and video recordings, electronic copies of attendance registers, meeting minutes, etc., associated with engagements;
  - Details commitments made to stakeholders during engagements, including the nature of the commitment, its status, completion dates, and follow-up actions required;
  - Allows the linking of all associated records;
- Grievance register (a template is provided in **Appendix D**):
  - Logs all grievances as outlined in Section 7.2;
  - Allows the linking of all associated records;
- SEP-related templates are to be used:
  - Grievance registration form (**Appendix E**);
  - Grievance close-out form (**Appendix F**);
  - Grievance response letter (**Appendix G**);
  - Attendance register (**Appendix H**);
  - Meeting agenda (**Appendix I**); and
  - Meeting minutes (**Appendix J**).

10 Monitoring and evaluation

M&E of the SEP is required to ensure that it achieves its objectives.

M&E of the SEP will be overseen by the Director of Sustainable Development (or similar, such as Social Performance) at the Company[4] level and by the SEM at site level. External stakeholders should be selected to participate in the M&E activities. It is recommended that external stakeholders include representatives of the impacted and/or neighbouring communities, a representative of the local government, and a representative from a reputable and recognised CSO. It is recommended that the individuals representing these stakeholder groupings be changed annually to ensure the integrity of the process.

10.1 M&E activities

The objectives, methods, responsibilities, and frequency of monitoring and evaluation activities are outlined in Table 10-1.

Table 10-1: Monitoring and evaluation of SEP

Theme	Objective	Method	Responsible	Frequency
Monitoring				
Stakeholder identification and mapping	To verify that: • all relevant stakeholders (including vulnerable people) are included, and • changes in stakeholder attributes are identified and recorded.	Review stakeholder mapping and database.	SEM, CLO, external stakeholders	Quarterly
Engagement activities	To determine if the Stakeholder Engagement Action Plan activities are being implemented as scheduled.	Review engagement records	SEM, external stakeholders	Quarterly
Commitments	To determine: • if all commitments to stakeholders are being actioned • progress on commitment implementation, and • if feedback is provided to stakeholders and recorded where there are delays.	Review commitment register and related communication	SEM, CLO, external stakeholders	Quarterly
Grievance management	To verify if grievances are being correctly recorded, logged, reported, reviewed, remediated and communicated.	Review all details captured in grievance register	SEM, external stakeholders	Weekly
Media coverage	To determine the nature of the publicity that the Project receives in the media.	Review media coverage	SEM CLO, Administrator	Quarterly
Evaluation				
Engagement methods	To confirm whether engagement methods (including format, timing, language and persons responsible) are effective in terms of meeting stakeholder needs (particularly	Review engagement records and stakeholder feedback	SEM, external stakeholders, independent consultant	Quarterly for first year, then every six months

[4] "Company" refers to the entity responsible for a given component of the project. During the construction phase, it will be Pak Yatirim, but once the OHL is operational, it will be overseen by RNT as an entity of MINEA.

Theme	Objective	Method	Responsible	Frequency
	those of vulnerable people) and achieving the SEP's objectives.			
Engagement content	To confirm whether: • communication is factually correct; and • communication channels are accessible to intended stakeholders.	Review engagement records and information materials prepared for engagements	SEM, SEM at Company-level, external stakeholders	Monthly
Grievance management	To verify if grievances submitted are correctly managed.	Review all details captured in grievance register	SEM, external stakeholders, independent consultant	Quarterly for first year, then every six months
Stakeholder relations	To assess whether engagement efforts contribute to Project's SLO.	Review engagement records to assess stakeholder attitudes toward Project	SEM, external stakeholders, independent consultant	Quarterly for first year, then every six months
Current relevance of SEP	To determine if SEP needs to be revised to reflect current Project - phase.	Review and update of SEP with consideration of Project phase, progress and activities	SEM, SEM at Company level, external stakeholders, external consultant	Quarterly in the first year, annually thereafter

10.2 Reporting

The SEM, with support from the CLO and Administrator, will submit reports to management at various frequencies outlined below:

10.2.1 Weekly, monthly and quarterly

Reports must contain the following information on activities that took place in the preceding reporting period:

- Summary of stakeholder engagements undertaken, including number and type of engagements, stakeholders engaged, information communicated, topics discussed, issues raised and any other relevant information;
- Summary of any challenges experienced in implementing engagement activities and Grievance Mechanism, including recommendations from stakeholders to address these challenges;
- Summary of positive and negative feedback from external stakeholders about engagement activities, communication modes and schedule;
- Indication new stakeholders identified;
- Summary of grievances and associated salient issues; and
- A schedule of engagement activities to be undertaken in the coming period, including communicating responses to grievances.

10.2.2 Annual

The Annual report must present a summary of the following information on stakeholder engagement in the preceding year:

- Number and type of engagements, stakeholders engaged, information communicated, topics discussed, and issues raised throughout the year;
- Partnerships established with stakeholders, nature and status of partnership, successes and challenges;
- M&E activities undertaken;
- Negative or positive changes in stakeholder relations and or any changes in the stakeholder landscape;

- Summary of grievances received during the preceding year, including number submitted, category and priority, current status (number resolved, number unresolved, number in progress);
- Grievances, trends, and actions taken to address identified causes of recurring grievances;
- Commitments made, progress, status, challenges, and positive impacts; and

  Recommendations for the upcoming year for stakeholder engagement activities, Grievance Mechanism, commitments, training, budget requirements, external studies needed, and partnerships to be established.

11 Conclusion

This SEP has been prepared in accordance with Good International Industry Practices (GIIP) in stakeholder engagement and provides an overview of the stakeholder engagement requirements during all the planning, construction and operation phases of the Project. The SEP must be reviewed and updated annually.

Prepared by

Lynette Herbst (*Pr Sci Nat*)
Senior Social Scientist

Reviewed by

Vassie Maharaj
Partner / Principal Consultant

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

12 References

EP Association. (2020). *The Equator Principles, EP4.* Retrieved from https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf [

EP Association. (2023). *About the Equator Principles.* Retrieved from https://equator-principles.com/about-the-equator-principles/#EquatorPrinciples

Geolab. (2024). *Cassinga Electric Power Supply Project: Socio-economic Baseline and Stakeholder Consultations.* Luanda: Geolab.

IFC. (2009). *Good Practice Note: Addressing Grievances from project Affected Communities.* Retrieved from https://www.accountabilitycounsel.org/wp- content/uploads/2017/07/IFCGrievanceMechanisms.pdf

INE. (2016). *Final Results. General Population and Housing Census of Angola.* Luanda: National Statistics Institute.

Mine Action Review. (2023). *Clearing the Mines 2023.*

OECD. (2019). *Due Diligence for Responsible Corporate Lending and Securities Underwriting.* Retrieved from https://mneguidelines.oecd.org/due-diligence-for-responsible-corporate-lending-and-securities-underwriting.pdf

UN. (2011). *United Nations Guiding Principles on Business and Human Rights.* Retrieved from https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

UN. (2023). *The 17 Goals*. Retrieved from United Nations Department of Economic and Social Affairs: https://sdgs.un.org/goals

UN. (2023). *The UN Working Group on Business and Human Rights.* Retrieved from The UN Guiding Principles on Human Rights and Business: An Introduction: https://www.ohchr.org/sites/default/files/Documents/Issues/Business/Intro_Guiding_PrinciplesBusinessHR.p df

Visite Huila. (n.d.). *Municipality of Chipindo*. Retrieved from http://visitehuila.com/en/provincia/municipios/municipio-chipindo.html

Visite Huila. (n.d.). *Municipality of Jamba*. Retrieved from Visite Huila: http://visitehuila.com/en/provincia/municipios/municipio-jamba.html

Visite Huila. (n.d.). *Municipality of Kuvango*. Retrieved from http://visitehuila.com/en/provincia/municipios/municipio-kuvango.html

Visite Huila. (n.d.). *Province profile*. Retrieved from Visite Huila: http://www.visitehuila.com/en/provincia/perfil-provincia.html

Appendices

Appendix A: Stakeholder database template

The table below is an example of a stakeholder database that can be used for the Project. It is recommended that the register be completed in an Excel spreadsheet that can handle details of stakeholders and that it can be linked to a consultation log. The spreadsheet should contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Stakeholder database / Base de dados das partes interessadas *Company logo*

Organisation / Organizes	Name / Designação	Surname / Apelido	Role / Funções	Physical address / Endereço físico

Appendix B: Stakeholder consultation log

The table below is an example of a stakeholder consultation log that can be used for the Project. It is recommended that the log be completed in an Excel spreadsheet that links to the stakeholder database. The spreadsheet should contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Consultation log / Ata da consulta

Company logo

Organisation / Organizes	Name / Designação	Surname / Apelido	Role / Funções	Date consulted / Data de consulta	Time of consultation / Momento da consulta	Key issues raised / Questões importantes	Resources provided *e.g. information leaflet* / Recursos disponibilizados *Por exemplo, folheto informativo*	Commitments made / Compromissos assumidos

Appendix C: Grievance mechanism supporting information

Step	Description
1. Receive grievance	Grievances are received through several channels to enable access for a variety of stakeholders, including those who are illiterate, those who cannot physically access the site office, and those who prefer to remain anonymous. CLOs are the designated contact persons for the submission of in-person grievances. They will assist those who are illiterate to capture their grievances. CLOs should be present at stakeholder meetings to receive grievances and be on site during working hours.
2. Screen grievance	As grievances are received, they should be screened to determine whether: • The complaint is in the scope of Project activities, e.g., an emergency that occurred as a result of a non-Project-related incident close to the site should not classified as a grievance; and • The complaint is within the ambit of the grievance process, e.g., requests for donations should not go through the Grievance Mechanism. Every grievance should be assumed to be legitimate, even where the person receiving it on behalf of the Project is confident that it is not occurring or credible. This is because perceived impacts are still impacts. It is in the subsequent steps that the legitimacy of a grievance must be ruled in or out to determine if it might simply be a Project activity that is misunderstood.
3. Record grievance	The grievance registration form contains a unique number (forms should be generated with Bates numbering), space to record information about the complaint and the complainant, and the date that the grievance was recorded. It also includes an overview of the investigation and resolution process to be followed, along with a commitment that the complainant will receive a response within a maximum of fourteen days of registering their grievance. Critical grievances may need to be resolved more quickly. Explaining the process verbally to the complainant will assure them that the process is transparent and shows them what to expect after a certain period. In the case of grievances that can be immediately resolved by the CLO (i.e., that need not be subjected to an internal investigation, such as in the case of a grievance based on a misunderstanding), the CLO logs the grievance in the grievance register and completes a grievance close-out form. The completed grievance close-out form is signed or fingerprinted by the complainant and the grievance is closed out. It is recommended that this occurs in the presence of a witness and that the witness signs the close-out form. A copy of the completed and signed close-out form is given to the complainant and the CLO retains a copy to scan and keep on a secure cloud-based platform and to file as hardcopy at the Project office.
4. Log grievance	All grievances should be logged in the grievance register, whether they are deemed credible, within the Project or grievance process scope, and/or are resolved immediately by the CLO. This register reflects the types of grievances available as options in the grievance registration and close-out forms and requires that copies of these forms and grievance response letters, investigation results, and other reports be linked to the register (using the case number assigned when the grievance is recorded). The grievance register is used to record, track and monitor grievances and is also used to analyse trends and impacts when the Grievance Mechanism is reviewed.
5. Categorise grievance	Grievances must be categorised since they might have various causes relating to the actions of more than one department, contractor, system or personnel member. They can also include actual or potential incidents. Furthermore, categorisation is necessary for monitoring, reporting and review purposes and it enables the Project to identify recurring problems. A breakdown of recommended categories and sub-categories for grievances with social consequences is provided in the table below (this list is not exhaustive and should be reviewed as trends in grievances become apparent). **Description and potential origins of various types of grievances** **Type** — **Source** **Infrastructure and services** — Infrastructure that provides basic services (such as water, sanitation, and electricity), social amenities (such as education facilities or places of worship), and community safety (such as streetlights and accessibility for emergency services) could be impacted. — Project activities could cause temporary unavailability of or pressure on services, or permanent changes to how it is delivered (due to e.g., road diversions). Increases in costs for services could also result from population influx.

Step	Description	
	Community health and safety The physical safety or health of the community in the Area of Influence could be impacted through illness, disease, or injuries.	Project activities during construction could cause injuries involving Project equipment, vehicles, excavations, etc. Construction activities could also lead to increased dust, noise, and water and soil contamination. Population influx during all Project phases could lead to increased social ills such as prostitution, increases in Sexually Transmitted Diseases/Infections (STD/Is), unplanned pregnancies, and crime.
	Economic / financial Stakeholders' source of income generation could be affected by the Project's presence.	The Project will cause changes to the current land use of the site that local community members might have benefited from, such as sales from people who passed through or played soccer on the site. Some community members might expect employment or sub-contracting/business opportunities from the Project.
	Security Project-affected stakeholders could experience discrimination, intimidation, threats to security, conflict, or corruption at various stages of the Project.	Certain groups might be discriminated against during Project stakeholder engagement activities, employment and procurement/sub-contracting opportunities based on gender, political affiliation, ethnicity, or nationality. They might also be intimidated or misled to align with certain groupings to benefit from the Project.
6. Prioritise grievance	To ensure that the grievances carrying the highest risk, potential impact or urgency receive attention, grievances need to be prioritised. Prioritisation allows suitable timeframes and resources to be assigned to the resolution of grievances. The CLO and SEM will be responsible for assigning priority levels according to the criteria below: • **Low (1)**: Low-risk level issues with little impact and immediate or short-term consequences. Should be responded to within fourteen (14) days; • **Moderate (2)**: Medium-risk level issues with a moderate impact and medium-term consequences. Should be responded to within seven (7) days; • **High (3)**: High-risk level and impact, and long-term consequences. Includes security, community health and safety (H&S) grievances. Should be responded to within 24 hours; • **Extreme (4)**: Issues with an extreme risk level, substantial impact, and long-term to permanent consequences, including security, community H&S grievances, near-miss incidents, injury, criminal activity, death, protests, riots, and natural disasters. Should be addressed and flagged with management within two hours of occurring.	
7. Notify internal stakeholders	Internal reporting of grievances is required since it could indicate wider stakeholder concerns and may lead to reputational, financial or legal risks.	
8. Investigate grievance	All grievances that are screened in (as being within the scope of the Grievance Mechanism and Project) will be investigated by the CLOs and other department members, as relevant, to determine their: • Validity; • Potential or actual associated incidents; • Context (e.g., Project, community, political, economic); and • Potential risks (e.g., reputational, community health and safety, legal, environmental, safety, security).	
9. Resolve grievance	If it is determined that there **is** an adverse impact (any priority level) directly related to the Project, appropriate and proportionate remediation will be provided to the complainant after the process explained below has been followed. Potential remediation measures could include rehabilitation, restoration, and/or compensation.	
10. Review and evaluation of Grievance Mechanism	Feedback will enable the Project to evaluate the effectiveness, awareness, accessibility, and trustworthiness of the Mechanism. This will reveal which aspects of the Mechanism need to be amended. Options for obtaining feedback include reviewing the grievance mechanism during meetings with stakeholders, or confidentially presenting a summary of grievances and grievance outcomes during stakeholder meetings.	
11. Reporting	The reports are to include the number of grievances, categories, priority levels, number of closed-out, in progress and unresolved grievances, remediation measures, analysis of trends, and recommendations.	

Appendix D: Grievance register

The table below is an example of a grievance register that can be used for the Project. It is recommended that the register be completed in an Excel spreadsheet that can handle details numerous attached to grievances. Note that this register does not contain details on the nature, location or remedy of the grievance. Rather it provides a snapshot of the number and type of grievances submitted, appealed or closed in a given period. Text in italics can be provided as options in drop-down menus in the column they are listed.

Grievance details																		**Complainant details**		
Grievance no.	**Date received**	**Date and time logged**	**Category** *Infrastructure & services; community H&S; economic / financial; security*	**Priority** *Low / medium / high / extreme*	**Respond by date** *Investigation timeframe*	**Immediate close-out** *Yes / no*	**If yes, close-out form submitted?**	**If no, date reported to GRC for internal investigation**	**Date investigated internally**	**Date response letter compiled**	**Link to supporting documents**	**Satisfied with remediation?** *Yes / no*	**If yes, close-out date**	**If no, date escalated**	**Date appeal submitted, if applicable**	**Status** *Open / under investigation / closed*	**Link to closeout form**	**Name**	**Contact no.**	**Physical address**
GR-001-23																				
GR-002-23																				

Appendix E: Grievance registration form

Company letterhead

Grievance no.: *GR-001-23*

Grievance registration form			
Complainant details (optional)			
*Name:		*Contact no.:	
*Physical address:			
** Providing your contact information allows us to follow up with you regarding your grievance. However, if you prefer to remain anonymous, you may leave these fields blank.*			
Grievance details			
Received by:		Method of receipt:	
Category:		Priority:	
Description of grievance *Including date, time and, location of incident, who was affected, what happened.*			
Other relevant information or supporting documents			
Signatures			
*Complainant signature		Company representative name	
*Witness name		Company representative signature	
*Witness signature			
** If you prefer to remain anonymous, you may leave the signature fields blank.*			

Appendix F: Grievance close-out form

Company letterhead

Grievance no.: *GR-001-23*

Grievance close-out form			
Complainant details			
Name:		Contact no.:	
Physical address:			
Grievance details			
Received by:		Method of receipt:	
Category:		Priority:	
Grievance summary			
Grievance resolution / remedial measure(s)			
Response letter number			
Complainant comments			
Signatures			
The complainant hereby confirms that they are satisfied with the proposed remediation measures or resolution stated on this form.			
Complainant name		Complainant fingerprint	
Complainant signature			
Witness name		Company representative name	
Witness signature		Company representative signature	
Date			

Appendix G: Grievance response letter

The letter below can be used as a template to provide a response to the complainant. Text in italics should be changed as appropriate. The letter should be placed on a company letterhead and contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Company letterhead

Date: ***DD MM YYYY***

Grievance response letter no.: ***GRI-001-23***

Subject: ***Grievance no.: GR-001-23***

Dear Sir/Madam

The grievance submitted to the CLO, *Mr/Ms Name Surname* on *day month year* has been investigated and the results of the investigation reviewed by the Grievance Response Committee.

Grievance summary:

Text

Recommended remedial measures:

Text

If you agree to this remediation measure, please sign a grievance close-out form to capture your acceptance of the proposed remedial measure. The remedial measure will be implemented within *x* days of the signing of the acceptance form.

If you do not agree with the proposed remediation measures, it will be escalated to the Grievance Appeal Committee for review.

Yours sincerely,

Name and surname of the Stakeholder Engagement Manager/ Head

_____

Title
Number
Email

Appendix H: Attendance register

The table below can be used as an attendance register template for stakeholder meetings. The document should contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Company logo

Attendance register

Subject **Date**

Venue **Time**

No.	Name	Surname	Role / designation	Organisation	Contact no.	Email	Signature
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Angola's Personal Data Protection Law No. 22/11 of 17 June 2011 and Pak Yatirim's Personal Data Protection and Processing Undertaking aims to promote the protection of personal information. By registering, stakeholders consent to have their relevant information, including contact details, added to the Pak Yatirim database and agree to be contacted if necessary. The information provided by stakeholders is intended for project-related communication and will not be shared with third parties without prior consent.

Appendix I: Meeting agenda template

The agenda template below can be used for any stakeholder meetings. It should be placed on a Company letterhead and contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Company letterhead

Stakeholder meeting agenda			
Meeting details			
Subject		**Venue**	
Date		**Time**	
Intended participants			

Agenda		
Item no.	Topic / subject	Speaker
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Appendix J: Meeting minutes template

The minutes template below should be used to capture the outcomes of stakeholder meetings. It should be placed on a Company letterhead and contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

Company letterhead

Stakeholder meeting minutes			
Meeting details			
Subject		**Venue**	
Date		**Time**	
Duration		**Chair**	
Scribe			

All minutes must be accompanied by an attendance register.

Minutes				
Item no.	**Description**	**Action**	**Responsible person**	**Due date**
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Appendix H: Background Information Document (BID)

DOCUMENTO DE INFORMAÇÃO DE BASE

Avaliação de Impacte Ambiental e Social (ESIA) para o Projecto de Fornecimento de Energia Eléctrica de Cassinga

Qual é o objectivo do presente documento?

Este documento de informação de base fornece às partes interessadas e afectadas (PIA) informações sobre o projecto proposto e as suas componentes, o processo regulamentar e a forma de participar.

Se quiser fazer uma pergunta, um comentário ou levantar uma questão, pode contactar Ana Ramos da Geolab através do telemóvel ou do e-mail +244 927 005 244 ou geral@geolab.co.ao.

Introdução

O Ministério da Energia e Águas (MINEA) pretende construir uma linha aérea (OHL) de 220 kV para fornecer electricidade ao Projecto Cassinga e às comunidades circundantes. Para obter financiamento e garantir a licença ambiental necessária, o projecto tem de ser submetido a um processo de Avaliação de Impacte Ambiental e Social (AIAS) para cumprir a legislação angolana e os requisitos das boas práticas internacionais.

A SRK Consulting na África do Sul, em parceria com a Geolab, uma empresa angolana com sede em Luanda e registada no Ministério do Ambiente (MINAMB), foi nomeada para realizar a AIAS.

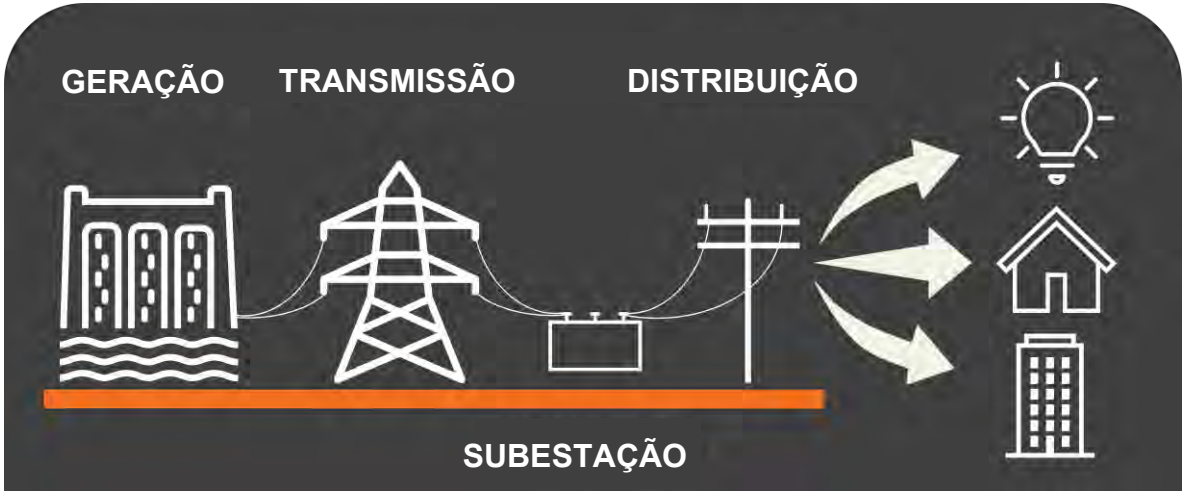
Descrição do projecto

O objectivo do projecto é fornecer electricidade gerada na Barragem Hidroelétrica do Gove ao Projecto Cassinga e às comunidades circundantes de Cuvango, Chipindo e Jamba. Isto será feito através de uma OHL de 220 kV. Uma subestação de 220/30 kV - 20 MVA e uma rede de distribuição associada serão construídas em cada cidade para distribuir a electricidade aos consumidores, tais como residências e empresas.

O processo de fornecimento de electricidade é o seguinte:

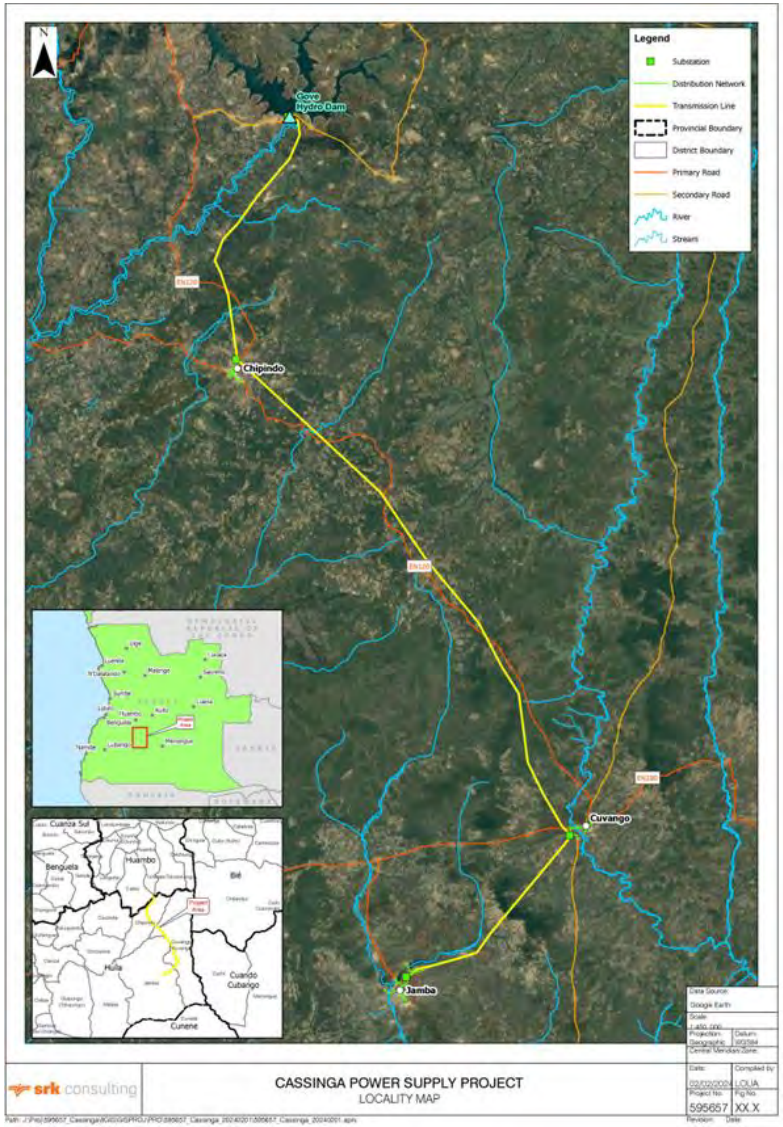
1. A electricidade é produzida na barragem hidroeléctrica do Gove utilizando a energia da água corrente
2. Uma OHL transmite electricidade de alta tensão para a subestação
3. A subestação converte a electricidade de alta tensão em electricidade de baixa tensão (de 220 kV a 30 kV)
4. As linhas de distribuição fornecem electricidade aos consumidores.

O diagrama à direita apresenta um resumo gráfico do processo:



Localização do projecto

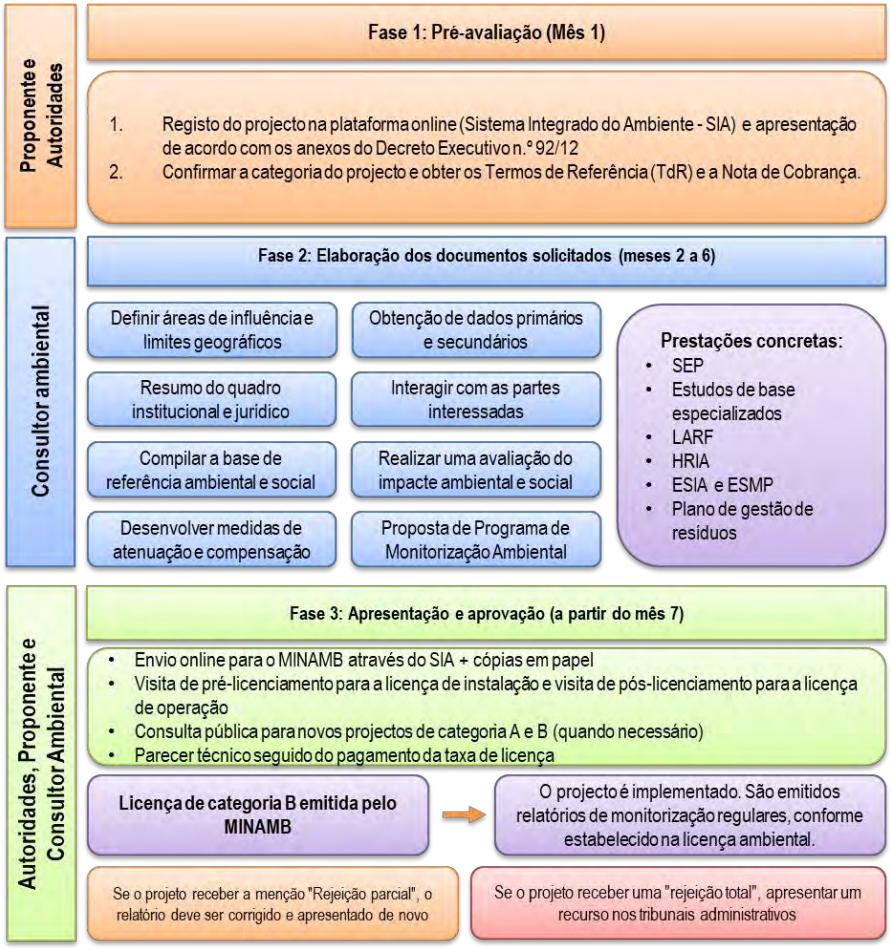
O trajecto da OHL de 220 kV proposta é de aproximadamente 170 km. Começará na barragem hidroeléctrica do Gove, na província do Huambo, e seguirá um percurso de 135 km até ao Cuvango, via Chipindo. A partir do Cuvango, percorrerá mais 35 km até à Jamba, todos eles na província da Huíla.



Localização da OHL de 220 kV proposta e das localidades que abastecerá de electricidade.

Como funciona o processo de AIAS?

O Estudo de Impacte Ambiental e Social (EIAS) financiável está a ser preparado de acordo com os requisitos internacionais de boas práticas e com a legislação angolana relevante, como o Decreto Presidencial n.º 117/20, de 22 de abril de 2020, sobre o Regulamento Geral de Avaliação de Impacto Ambiental e Procedimentos de Licenciamento Ambiental. O EIAS será submetido ao MINAMB. Este projecto está classificado como uma actividade de Categoria B. O processo que será seguido é ilustrado abaixo, juntamente com os relatórios e planos (entregáveis) a serem produzidos.



Processo e resultados da AIAS aplicáveis a este projeto.

Appendix I: Reconnaissance survey (with CRR)

SRK House
265 Oxford Road
Illovo 2196
P O Box 55291
Northlands 2116
South Africa
T: +27 (0) 11 441 1111
E: johannesburg@srk.co.za
www.srk.co.za

Memo

To:	Hatice Cinar	**Date:**	8 March 2024
Company:	Pak Yatirim	**From:**	Kavandren Moodley
Copy to:	Joao Ricardo Pereira, Enes Olpak, Esat Olpak, Ulku Ozeren, Elif Demirel Narin, Helios Verissimo, Darryll Kilian, Jesse Spratt, Joana Goeller, Lynette Herbst, Vassie Maharaj, Sara Pizarro.	**Project #:**	595657
Subject:	**Cassinga Electric Power Supply Project: Environmental and Social Impact Assessment (ESIA) – Reconnaissance Site Visit Findings**		

1. Introduction and purpose

This document presents the key findings from the reconnaissance site visit for the Cassinga Electric Power Supply Project ESIA undertaken between the 26th and 29th February 2024.

The purpose of the reconnaissance site visit was as follows:

- Undertake pre-consultation engagements with the local authorities to introduce the project and alert them to upcoming ESIA process and stakeholder engagements.
- Identify key environmental and socio-economic aspects for further consideration during specialist studies.
- Identify issues that will influence logistics planning and specialist mobilisation for the field studies.

2. Site visit participants and programme

The reconnaissance site visit was undertaken by project team members from SRK Consulting (Lead ESIA Consultant), Geolab (Angolan In-country ESIA Partner), Pak Yatirim (Client) and Rede Nacional de Transporte de Electricidade (RNT) (Angolan National Electricity Transmission Network Company). Prior to the site visit, a site visit programme was developed to plan various stakeholder engagements and observation/data gathering along the overhead line (OHL) route (**Attachment A**). **Table 2-1** provides participant details.

Table 2-1: Reconnaissance site visit participants.

Role / responsibility	Name	Organisation	Contact details
ESIA Project Manager	Kavandren Moodley	SRK Consulting (South Africa)	kmoodley@srk.co.za +27 83 226 4747
ESIA Social Lead	Lynette Herbst	SRK Consulting (South Africa)	lherbst@srk.co.za +27 72 439 9382
In-Country Lead	Sara Pizarro	Geolab (Angola)	Sara.pizarro@geolab.co.ao +244 927 686 956

Role / responsibility	Name	Organisation	Contact details
Advisor	Nelius Scheepers	Geolab (Angola)	nelius@hcvafrica.com +27 82 883 3004
In-Country Client Representative	Hélio Verissimo	Pak Yatirim (Angola)	hverissimo@pakyatirim.com +244 921 296 797
RNT Local Representative	Ivo D'Ha	RNT (Angola)	iraul@rnt.co.ao +244 931 417 108
RNT Local Representative	Pimental Rodrigues	RNT (Angola)	rpimental@rnt.co.ao +244 943 646 862

3. Assumptions and limitations

The following assumptions and limitations are applicable:

- The site visit proceeded without the demining team due to a late cancellation. Observations were therefore made from the road/tracks and focused on the substation locations, a section of the Gobi Forest and the section of OHL running adjacent to the main road between Cuvango and Chipindo (**Figure 3-1**).
- Limited time was available for site observations due to a delay in local flights (full day lost) and an overrun in local authority engagements. Nonetheless, the site visit was helpful in identifying key considerations for the upcoming project and specialist surveys.
- As a portion of the proposed route could not be accessed, the presence of human activities associated with livelihoods, settlement, paths and/or cultural activities will have to be determined during the surveys. Based on observations, most human settlement appears to be located along the roads rather than the less accessible areas.

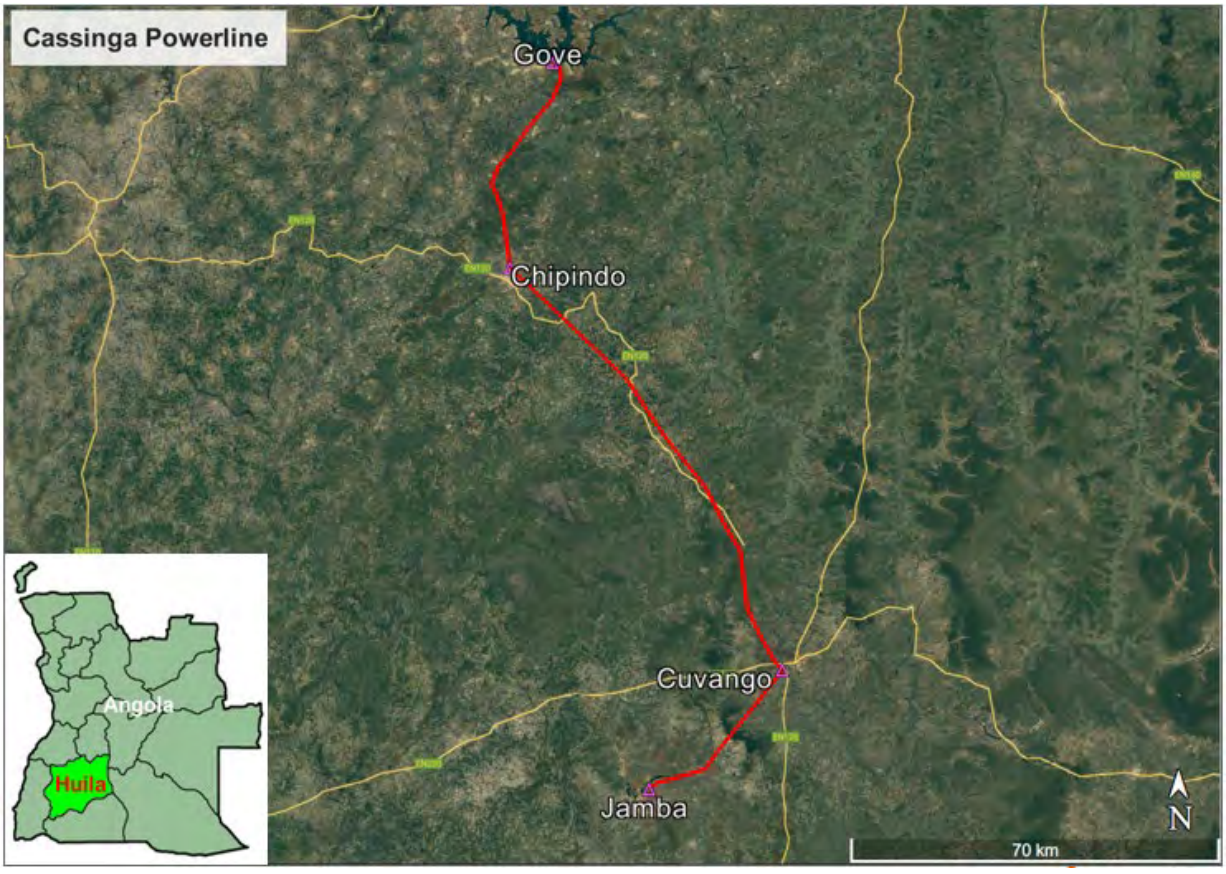


Figure 3-1: OHL routing and impacted villages.

4. Key environmental and socio-economic observations

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
The vegetation type between Cuvango and Chipindo was homogenous (predominantly *Brachystegia* species associated with the Miombo Forest, which is not unique but widespread in the region (**Figure 4-1**)).	**Figure 4-1: Homogenous Miombo forest observed.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Sections of the Gobi Forest appears to be modified and is interspersed by plantations. A wood cutting factory was also observed (**Figure 4-2** and **Figure 4-3**).	**Figure 4-2: Plantation observed within the Gobi Forest.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	 Figure 4-3: Wood cutting factory observed within the Gobi Forest.
Numerous small villages (colloquially referred to as communities) are located along the road between Cuvango and Chipindo. These villages are mostly homogenous in size, livelihoods, housing materials and agricultural activities.	N/A.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Land is not privately owned in Angola. In the villages, it is allocated by the local authorities – mostly the municipal administration. Sobas (the local commune authorities, shown in **Figure 4-4**) and elders (**Figure 4-5**) are mostly involved in conflict or dispute resolution in the communities over which they preside.	 **Figure 4-4: Sobas in the Cuvango area.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-5: An elder who accompanied a soba member in Chipindo.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Housing materials include mud brick houses with either thatch or corrugated iron roofs, the former being typically round huts and the latter rectangular structures. Corrugated iron roofs are held down by rocks and are regarded as a sign of wealth/prestige (as shown in **Figure 4-6**). Some dwelling walls are constructed of poles, which could indicate the presence of nomadic communities who only reside temporarily in a given area.	 **Figure 4-6: Various types of housing structures, including mud brick huts and houses with thatch or corrugated iron roofs are located in the rural villages.**

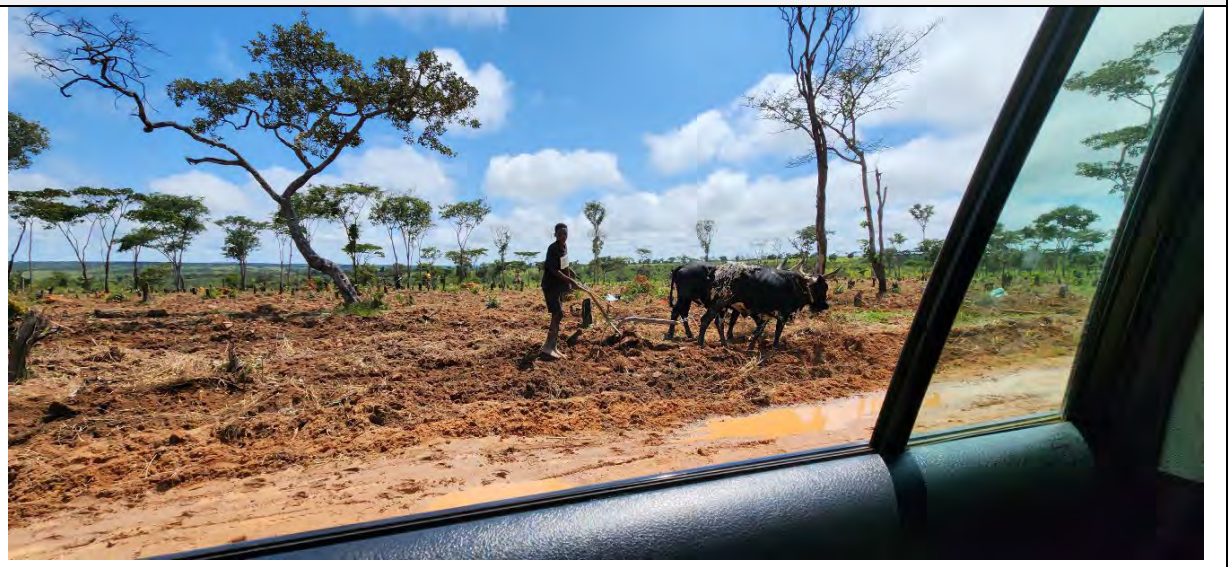
Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Agricultural activities are mostly undertaken for subsistence purposes and include the cultivation of maize (**Figure 4-7**) and cassava, which are the main crops. Plots of cultivated land are allocated at the edges of the villages. Some homesteads also grow their own maize in small lots and small trees or seedlings are protected from goats by fencing them in with sticks (**Figure 4-8**). The proposed transmission line crosses many of these fields.	 **Figure 4-7: A maize field in one of the villages. The red and green flag represents the National Union for the Total Independence of Angola (UNITA), the second-largest political party in Angola. These flags as well as Angola's country flag were observed at the entrance of many villages.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	 Figure 4-8: Fruit trees are sometimes fenced in to provide protection from browsing goats.
The Cuvango municipality indicated that there is a nomadic Khoisan group (an indigenous people) that is known to enter the study area from time to time. Two other Khoisan groups are also known to authorities but do not occur in the study area. The municipal administrations assist with health check-ups for these groups when they enter the municipality's jurisdiction (refer to **Table 5-2**).	N/A.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Most villages do not have schools or health posts close by. Soccer fields are located in many villages. Cellular phone connectivity is very limited and/or non-existent for the majority of the study area between Cuvango and Chipindo (**Figure 4-9**).	**Figure 4-9: A lady searching for cell phone signal in a rural area.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Women were observed harvesting maize or selling fresh produce (**Figure 4-10**), and boys or young men were observed herding cattle (**Figure 4-11**), ploughing fields (**Figure 4-12**) and fishing.	**Figure 4-10: Fresh produce being sold in a rural village.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-11: Cattle herded by a young man in a rural village.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	 **Figure 4-12: A boy ploughing a field with cattle.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Livestock mostly includes cattle, goats (**Figure 4-13**) and pigs (**Figure 4-14**). Goats and pigs were seen roaming inside the village areas.	**Figure 4-13: Goats roaming freely in a rural village.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	 Figure 4-14: Pigs roaming freely close to a rural village.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
A limited number of households have small generators in the villages (**Figure 4-15**). Some villages have solar-powered boreholes and water tanks or reservoirs, which have been deployed as part of a “Water for All”-campaign (**Figure 4-16**). Other villages have manual, hand-operated boreholes / wells.	**Figure 4-15: A motorbike transporting a generator.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	 Figure 4-16: A reservoir and solar-powered borehole installed as part of the Water for All campaign.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
The primary form of transportation in the study area is motorbikes, which are mostly driven by men. They are also used to transport passengers and cargo (**Figure 4-17**). Three-wheel motorbikes with passenger/cargo carriers are a commonly used form of transport (**Figure 4-18**).	**Figure 4-17: A passenger and goods being carried on a motorbike in a rural area.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-18: A three-wheel motorbike carrying passengers.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Slash-and-burn activities was the predominant method of agriculture, and involves the removal of natural vegetation (e.g., trees and shrubs) to clear fields for crop production (**Figure 4-19**). Trees are also chopped down for charcoal production. Other means of generating income include the sale of diesel or honey. These products are sold in plastic jerry cans or glass bottles along the side of the road (**Figure 4-20**).	 **Figure 4-19: A field being prepared for maize cultivation. Natural vegetation has been removed and trees cut back.**

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-20: Plastic jerry cans indicating the availability of diesel.

Environmental and socio-economic aspects observed along the rural areas of the OHL route	
Observation description	*Photographic evidence (where applicable)*
Rivers or streams are used for bathing and washing clothes and linen (**Figure 4-21**). Fishing is also a key livelihood activity. These activities were observed occurring in very close proximity to each other.	**Figure 4-21: Women bathing and washing clothes in a stream.**
Artisanal and small-scale (ASM) mining was observed in the study area, with the exception of areas close to Gove dam (where they are reportedly prospecting for gold). However, as it was not possible to access certain areas of the route, it is not possible to preclude the existence ASM in other sections of the study area. ASMs are under watch by local militia and cannot be photographed or approached without prior consultation with appropriate government stakeholders.	N/A.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
The more urbanised areas have a wider variety of transportation, such as private motor vehicles and minibus taxis (referred to locally as *candongueiros,* **Figure 4-22**). Roads are mostly unsurfaced, even in urban areas. Jamba has a train station on the outskirts of the town, close to the proposed location of the Jamba substation (**Figure 4-23**).	**Figure 4-22: A minibus taxi or *candonguero* in front of a store.**

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-23: The train station on the outskirts of Jamba, close to the location proposed for the substation.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
Urban areas typically have schools and health posts, one of which was observed to be fairly busy throughout the day and after nightfall (**Figure 4-24**). Churches were seen in the urban areas (**Figure 4-25**), as well as a park (**Figure 4-26**).	**Figure 4-24: The hospital at Cuvango.**

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-25: A church at the entrance of Chipindo.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	 Figure 4-26: A park in Cuvango.
Some electrification has taken place in urban areas, but the network is limited. The reason for this is that these localised networks are not connected to the national grid, but rather distribute power generated by municipal administration generators. Fuel is expensive to transport to these remote settlements.	N/A.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
Small markets where agricultural products are sold were observed close to the urban areas. Some fresh produce or baked goods are also sold alongside the road. Sellers are mostly women or girls, some of whom have babies with them (**Figure 4-27**). The urban areas also contain small businesses such as barbershops, supermarkets (**Figure 4-28**), vehicle lubricant or part merchants (**Figure 4-29**), internet cafes, clothing and shoes (**Figure 4-30**).	 **Figure 4-27: Women and children selling fresh produce in Chipindo.**

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-28: A typical supermarket.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-29: A lubricant merchant store in Chipindo. Glass bottles in the foreground contain the product to be purchased.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
	Figure 4-30: A local merchant of clothes and shoes.

Environmental and socio-economic aspects observed along urbanised areas of Jamba, Cuvango and Chipindo	
Observation description	*Photographic evidence (where applicable)*
The sites of the proposed substations are located just outside the urban areas on the land owned by RNT. The RNT representatives indicated that these plots are not marked or fenced. At the sites that could be accessed, there was limited human activity, but there were signs of foot- and motorbike paths (**Figure 4-31**). The proposed Jamba substation site has been significantly disturbed by activities related to a previous/abandoned thermal plant.	 **Figure 4-31: A footpath passing through the proposed site of the Jamba substation. The land is owned by RNT and was previously a thermal power plant.**

5. Pre-consultation engagement outcomes

As part of the stakeholder engagement process, pre-consultation engagements were held with local authorities impacted by the proposed project, namely the Jamba, Cuvango and Chipindo local authorities. The outcomes of the local authority engagements are presented in the Comments and Responses Reports (CRRs) in **Table 5-1** to **Table 5-3**. Further engagement was held with the Gove Substation Managers as presented in the CRR in **Table 5-4**. Attendance registers are included in **Attachment B**.

Table 5-1: CRR for Jamba Local Authority.

Project Number: 595657		**COMMENTS AND RESPONSE REGISTER** Cassinga Electrical Power Supply ESIA – **Comments raised during the Jamba Local Municipality meeting on 27 February 2024**.	**Updated: March 2024**
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Municipal Adm. Deputy for Technical Area, António Kahala	2024.02.27	Explained that in colonial time Jamba had power coming from the Matala dam, but during the war both the dam and the transmission infrastructure were destroyed. Last year the administration, through the PIM programme, tried to reinforce the local supply system with three more diesel generators, but they require a lot of maintenance. In January the last one broke down leaving the town without electricity and the people very restless. He said there was great expectation for the project, thanked the site visit participants for coming and said they were available to help in providing contacts in the communities and would assist whatever necessary to carry out the studies. He asked the following questions: - What is the construction timeframe? - What is the cost of the project? - Why is the project not linked to Cassinga where power is required? (He noted that the representative of the company that operates the mine was present).	Mr. Ivo D'Ha (RNT) explained that this project is part of a larger RNT project that will take power to Menongue and Cuito Cuanavale in Cuando Cubango Province. He explained that the Laúca - Waco Cungo - Gove system has already been interconnected, so there is already enough energy to flow. The aim is to interconnect Cunene, Belem do Dande and Chamutete. He also mentioned that RNT had already been to Jamba in 2017/2018 as part of the studies for this project and the aim is to be able to supply all the industrial centres in the region and the existing mining companies from Gove to Cassinga and Cuito Cuanavale. Mr Hélio Veríssimo (Pak Yatirim) replied that if all goes well, the project will be completed in 2023 (3 years). He explained that "all going well" means: SRK/Geolab finalising the studies this year (with help from the Administration) and being able to obtain funding for the project. The total cost of the project is €196,000,000. The project only envisages the connection to the seat of the municipality of Jamba, with no extension to Cassinga. Sara Pizarro (SRK/GEOLAB) added a clarification regarding the deadlines, explaining that in projects with international funding, the studies precede the fieldwork, and this lag sometimes leads to people thinking that the projects are not being implemented.
Municipal Director of Agriculture, Mr João Paulo Tavares	2024.02.27	Who are the backers? Who are the consulting companies? Are they	Mrs. Sara Pizarro (Geolab/SRK) explained that the environmental studies will be carried out by a partnership between an Angolan company, Geolab, of which she is a representative, and SRK, a South African company with

Project Number: 595657		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Jamba Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
		national or foreign?	experience in other work in our country. It was further explained that the financier has requirements in terms of the curriculum and technical capabilities of the consultants, which is why SRK and Geolab are working in partnership. Mr Hélio Veríssimo (Pak Yatirim) explained that the financing is being negotiated by the Ministry of Finance (MINFIN) with a Swedish entity. One of the key points for approval of the funding is the presentation of the ESIA, which will be analysed and approved by the board of this entity and only after this stage will the funding be approved.
Municipal Adm. Deputy for the Technical Area António Kahala	2024.02.27	We do not have the energy to support big investments. For example, there is a Turkish company that plans to exploit iron. However, the mine has not been able to start up for more than three years due to lack of energy. An urgent supply of energy from the national grid is essential. These iron ore projects will bring a lot of employment, which will have a great positive impact on the young people of the municipality.	Mr. Ivo D'Ha (RNT) said that he heard the "scream from the administrator" and would like to emphasise once again that this project is part of a wider project. "At this very moment, demining has already begun for the construction of the link between Gove and Matala; the "corn triangles" project has already begun: Caconda-Chicomba-Caluquembe / Quipungo-Matala-Chicomba / Chipindo-Matala-Cuvango where Jamba is in the middle therefore this project will reinforce those projects to supply energy to the whole area and until it is completed, other projects that are in the line corridor will already be underway. He also said that here are projects for 2025, 2026 and 2027. There's also a project along the line – a "battery unloader" to power all the towns the lines will pass through.
Coordinator. From the social area of Tossial (iron mining project) – Mr. Fernando Cativa	2024.02.27	He indicated that the company has only done minor work in the north Cassinga area due to a lack of power. The main production centre, known as the primary centre, is in the Cassinga South area and needs a power	Following on from his reply to the Administrator, Mr Ivo (RNT) said that RNT has contact with all the GEP's (Statistical and Planning Offices) of the region's municipalities and therefore has an idea of the municipal needs of the southern region. He also said that RNT's aim to have Tossial and other mining companies as

Project Number: 595657		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Jamba Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
		supply from the grid in order to start up. He mentioned that in 2021 they had a visit from a Turkish company that was going to start a project to take the energy from Chamutete to Cassinga Sul, where the company's main operating centre is located, which is the hope of many young people in the municipality.	its own customers, i.e., supplied with a direct 220 line.
Municipal Delegate of SINSE (State Information Services) Mr. Domingos Manuel	2024.02.27	He mentioned that as far as he could tell, the project would only be successful if the studies were approved. With regard to the ESIA, what factors could affect the viability of the project so that we could perhaps mitigate as much as possible the reasons that could condition it?	Mrs. Sara Pizarro (Geolab/SRK) indicated that as far as environmental impact studies are concerned, national legislation defines exclusion situations from the outset, i.e. as I mentioned earlier, the law classifies projects according to their type, location, size, etc., and, from the outset, if we have industrial projects to be installed in protected or sensitive areas and with the potential to generate significant impacts, these projects are excluded. However, in most cases, the results of environmental impact studies do not exclude projects, but rather identify the need to make adjustments or minor changes. As a result of the environmental studies and after the impacts have been identified, mitigation measures are defined in order to minimise negative impacts and boost positive impacts. One of the important criteria for providing a direct response is, for example, the need to move people or affect agricultural land. A careful analysis is always made of whether or not it is possible to divert the line; if it were a localised project, whether it is possible to fit the project into another location; trying to ensure that the substations are not located in areas with housing, etc. Aspects such as gender equality and equal opportunities for women and men are also assessed. Sometimes people think that only men can work on certain projects (mining, for example). We can see that there are few women here and this is one of those points where we usually insist that women take part in

Project Number: 595657		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Jamba Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
			these sessions, because women's concerns are different. We need to get to know the people in order to understand what opportunities the project is going to bring to them and whether it's not going to interfere with their farming plots, their houses, etc. And of course, the environmental aspects, not just in terms of protected areas, but for example areas where there are protected species or those used in traditional medicine. At the end of the study, what we do is assess the positive and negative impacts and outline mitigation measures to be implemented in order to minimise the negative impacts and boost the positive ones. It's not just saying that it will create jobs, it's recommending that the company set up programmes to publicise opportunities, with respect for working conditions, gender equality, etc. All these recommendations are "tailored" to the population and your help is needed to help us get to know the population, but also the whole area, for example if there are areas of cultural importance.
Municipal director of integrated municipal development – Mr. José Carlos Jamba	2024.02.27	When does construction start? March this year or next?	Mr Hélio Veríssimo (Pak Yatirim) indicated that the project itself has already begun, as the environmental studies are part of the project. In March next year the field work will begin, with the engineering teams on the ground.
Head of GEP Mr. António N´Dala	2024.02.27	He wanted to know if the company will create any unskilled jobs during the three-year construction of the line. He also enquired if the project includes any social responsibility projects.	Mr. Hélio Veríssimo (Pak Yatirim) said that Pak Yatirim is a Turkish company, but in the context of projects in Angola it will work as Angolan legislation dictates. We will work with Angolan organisations that are expected to hire local staff within the scope of the project specifications. Mr Ivo (RNT) stressed that according to national legislation, all public-private companies investing in a given region are obliged to hire local labour. Mr. Hélio Veríssimo (Pak Yatirim) indicated that as part of the project, there is a social component valued at around 1% of the contract value, which should cover the project's localities.

Project Number: 595657		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Jamba Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Director of Infrastructure – Mr. Francisco Pereira Fernando	2024.02.27	He wanted to know if they were going to recover the infrastructure of the old substation. He also asked if RNT has data on the initial capacity of the old substation and if this will be sufficient in the face of network expansion and increased demand from mining operations.	Eng. Ivo (RNT) explained that the intention is not to restore the old substation, but to eventually place the new one in the same location. In colonial time, Jamba was supplied from Matala, whose maximum capacity was 39MW, which is completely insufficient for current demand, as Tossial alone requires 100MW. Pak Yatirim's project is intended to reinforce this need, since it will bring energy from Gove, which in turn is already connected to the Laúca system, which will enable the various industrial centres in the region to be supplied from Jamba.

Other relevant data gathered from engagement:

- The administrator pointed that the lack of energy has also been at the root of illegal gold mining. “There are also other small agricultural and processing businesses, such as mills or fish production, that can't get off the ground because of the lack of energy. We have been losing a lot of staff because of the lack of conditions for them to settle due to the lack of energy.”
- “We think that this project will be very good for the municipality, particularly for the development of this region, which has great potential with iron and gold, arable land for very important agriculture, and tourist areas to exploit (the municipality of Jamba is part of the Okavango project). We represent the 138,000 inhabitants who yearn for energy every day.”
- It was also pointed out that as part of the new administrative division project, the Dongo commune could become a municipality, so in the future this network should be considered to reach it.
- Number of houses per commune: Jamba is 34,000 / Cassinga is 28,000 / Dongo is 55,000.

Table 5-2: CRR for Cuvango Local Authority.

Project Number: 598597		**COMMENTS AND RESPONSE REGISTER** Cassinga Electrical Power Supply ESIA – **Comments raised during the Cuvango Local Municipality meeting on 27 February 2024**.	**Updated: March 2024**
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Municipal Administrator – Luís N'Dala	2024.02.27	The Municipal Administrator introduced himself and his colleagues who had accompanied him at the start of the meeting. Said also that they would inform the communal administrators and the traditional authorities and national police of our presence so that there would be no problems and asked us to indicate when we would be in the municipality. Explained that the Municipality is part of the Okavango - Zambezi project, and that periodically teams come to do monitoring work whose aim is primarily to regularise the flow of the river and also to protect the fauna and flora of the rivers. He pointed out that the municipality has many resources, including gold, and that it is necessary to have energy so that small, medium and large companies can set up and create jobs for the population and, consequently, improve living conditions. He pointed out that they currently "work" with thermal energy, which costs a lot and requires constant maintenance and replacement materials, which does not allow for a more comprehensive and uniform supply. He asked when work on this project was expected to be completed.	Mrs. Sara Pizarro (Geolab/SRK) clarified that we would always inform them of the dates on which the fieldwork would be carried out and even request that some representative of the municipal or communal administration accompany specialists for the socio-economic surveys. Mr. Hélio Veríssimo (Pak Yatirim) answered that the planned construction period is 3 years, beginning with the start of work on the ESIAS and expected to be completed by 2027. Mr Ivo (RNT) reinforced what was initially said in the project presentation that it is part of an integrative project that includes several other projects already underway such as the Gove-Matala project that will also feed Cuvango, the maize triangle project and also plans to reinforce the power supply to Cuvango and Jamba. All the regions of the Okavango delta, mining regions and the maize triangle are priority projects. By 2027 many of the projects in this section will have been completed.

Project Number: 598597		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Cuvango Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Silvana - Municipal Environment and Sanitation Manager	2024.02.27	He recalled that in 2020 they had already carried out a survey with RNT in which they evaluated the possible locations for the substations and wanted to know if this project was related to that survey. He wanted to know the radius of the beneficiaries of the substations to be built	Mr Ivo (RNT) indicated that RNT was in the municipality in 2017, 2018 and 2020 as part of studies to survey electrical infrastructures that could be fed by the construction of the backbone. (Explained the meaning of backbone) He explained that Angola we have five regions from the point of view of power generation: North, Centre, South, East and Cabinda, which is isolated. The backbone is the interconnection of all the electrical systems with a 220kV line. Subsequently, a survey was also carried out to access the region's potential: the maize triangle; the Okavango delta, mining projects, and areas with potential for the steel industry, which resulted in a map presented to the Ministry of Energy and Water and which is the basis for the projects currently in the process of seeking funding. This project for the line between Gove and Jamba is therefore part of a larger, integrative project. MR. Hélio Veríssimo (Pak Yatirim) added that as part of the project that PAK will be carrying out, it is planned to make around 1,000 house connections in Cuvango, as well as public lighting.
Silvana - Municipal Environment and Sanitation Manager	2024.02.27	She was very pleased not only with the news of the project's implementation, as it would bring energy to the municipality, but in particular with the fact that both the developer and the financiers had not neglected their concern for the environment and the communities, through the importance given to the ESIA. She also said that she hopes to be able to collaborate and hopes to accompany the studies	The comment was noted. It was indicated that arrangements will be made for a municipal representative to accompany the team during site visits.

Project Number: 598597		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Cuvango Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
		during their development.	
Municipal Directorate of Social Action - Dr Meireles Cambinda	2024.02.27	In response to the question about whether there were any sensitive minority ethnic groups in the municipality, he mentioned that some families from a Koissan group do reside in parts of the municipality from time to time. He said that these groups are protected and monitored by the social action department. They agreed to share their current location if it is in the area of the project corridor. With regard to the project, he said that it was very welcome because, as the person responsible for the social area, he is in contact with the population on a daily basis and knows that access to electricity is one of the most frequently heard requests, as the current supply system only covers a small part of the municipal centre, leaving all the other residents without power.	More information was requested on the groups/families currently in the municipality, the location of the camps, habits and customs, etc. Information was also requested on the existence of places of worship or traditional rituals, graves or other places of community interest along the corridor of influence of the project.
Daniel Sangueve (general secretary)	2024.02.27	The General Secretary asked how many jobs the project would create locally and whether the company had a specific employability plan for the municipalities. He confirmed that there is a polytechnic institute in the municipality that promotes vocational training for young people.	Eng. Hélio Veríssimo (Pak Yatirim) indicated there is definitive information on the number of jobs to be created as the project is still at the development stage. Pak Yatirim is a Turkish company that will conduct its work in accordance with Angolan law, i.e. it will hire national subcontractors who in turn will hire local labour in accordance with labour and public procurement legislation. He also added that within the scope of the project there is a social component valued at around 1% of the value of the contract that should

Project Number: 598597		COMMENTS AND RESPONSE REGISTER Cassinga Electrical Power Supply ESIA – **Comments raised during the Cuvango Local Municipality meeting on 27 February 2024**.	Updated: March 2024
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
			cover the localities of the project, which will certainly contribute to the development of skills and capacities that will serve not only this project, but also others.
Drª Ester Tomás – Legal Office	2024.02.27	He asked whether, in the area of social responsibility, in addition to employability, there were any projects planned to support local communities.	Mrs. Sara Pizarro (Geolab/SRK) clarified that as a result of the environmental studies, one of the mitigation measures in projects of this nature suggests the creation of programmes to publicise employment opportunities, specifically created according to the communities, with a guarantee of equal opportunities and respect for working conditions. As far a social responsibility projects are concerned, at this stage it is still too early to have identified projects. After the studies and characterisation of communities, the needs will be identified in conjunction with the authorities and specific projects will then be developed. At this stage there is only a definition of the order of values that will be applied to social projects.
Commander Manuel Correia - National Police	2024.02.27	He said that he believes the project will have a very positive impact on the population and will be very important for improving safety conditions, particularly in the municipal centre through public lighting.	The comment was noted.
Dr. Marinela – GEPE Director	2024.02.27	The GEPE Director mentioned that the project will enable some projects to be started that the municipality has but which, due to a lack of energy, are stuck in drawers.	The comment was noted.

Table 5-3: CRR for Chipindo Local Authority.

Project Number: 598597		**COMMENTS AND RESPONSE REGISTER** Cassinga Electrical Power Supply ESIA – **Comments raised during the Chipindo Local Municipality meeting on 28 February 2024**.	**Updated: March 2024**
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Mr. Ibraimon dos Santos- Director of Infraestructuras	2024.02.28	Energy is essential for everyday activities and for boosting the region's industry (mining and agriculture). They are grateful for the project and hope it will be implemented quickly.	The comment was noted.
Mr. Otávio Miranda – Municipal Energy and Water Director	2024.02.28	How long will the environmental impact study take?	Mrs. Sara Pizarro (Geolab/SRK) indicated that the ESIA will have to meet national criteria and international requirements. It will take around 9 months to develop, taking into account the requirements of the standards, one of which that two sampling campaigns are needed (dry season and rainy season). Consultations will have to be held at a later stage of the study.
		When will the project start and how long will construction and assembly take?	Mr. Hélio Veríssimo (Pak Yatirim) said that you could say that the project has already begun. It has a 3-year deadline for completion – 2027. The civil engineering team will only be on the ground in the first quarter of 2025.
		Is the powerline from Gove medium or high voltage? Is the substation for high to medium voltage?	Eng. Ivo (RNT) indicated that the substation will be high voltage - 220 kV/60/30. 220 kV will be used to supply the mining companies concerned or possibly 60 kV. 30 kV will be for the population.

Other relevant data gathered from engagement:

- The municipality has around 81,000 inhabitants (2014 Census) and 8,000 houses in the centre.
- Livelihood - livestock farming. At the moment there are no large farms, only small ones. There is some fishing, but on a small scale because there are no means available.
- A project was inaugurated as part of the Integrated Intervention Plan for Municipalities (PIIM) to supply energy to at least 200 connections. Before the PIIM there was a generator for the administration and the palace.

- There are three gold mining projects. There are many requests for mining projects, but they have not yet started.
- Employment - agriculture is the sector that employs the most people.
- Communities along the road - Capuca, Mussungo, Cunha Sange and Candongue.

Table 5-4: CRR for Gove Substation Managers.

Project Number: 598597		**COMMENTS AND RESPONSE REGISTER** Cassinga Electrical Power Supply ESIA – **Comments raised during the Gove substation managers meeting on 28 February 2024**.	**Updated: March 2024**
Interested and Affected Party Name and position	**Date Comment / Question Received**	**Comment / Question**	**EAP Response**
Acacio- Electronics Division	2024.02.28	Why was Gove not included as a town that would get home connections?	Mr. Ivo (RNT) indicated that for there to be distribution, there has to be substations and the distance between the planned substations at Jamba, Cuvango and Chipindo is too great to guarantee household connections to Gove. It wouldn't be feasible to build a medium-voltage line over 30 kilometres long. However, there is another RNT project, "battery chargers", which are basically voltage transformers that "drip" onto the line to supply localities along the line. Some towns along the line between Gove and Chipindo will therefore be supplied.
		Gove will have to undergo changes in order to accommodate this project. A complete panel will need to be installed to receive the powerline.	The comment was noted.
André Diogo - Shift Management	2024.02.28	The project is good news for the populations of the municipalities concerned. Why will only 1000 connections be made in each municipality when substations are going to be built and the powerline will be 220MW?	Mr. Ivo (RNT) said that RNT is responsible for transport and not distribution, and the connections in this project are deemed to be a social bonus. By building the substations, the first step has already been taken and with the possibility of installing "battery charger" projects, the scope of the energy supply can be extended.

6. Potential risks and fieldwork considerations

A number of risks and key considerations for the fieldwork were identified during the reconnaissance site visit, namely:

- The local airline (TAAG) is unreliable, and this should be considered in future site visit planning. The South African “Airlink” airline should be used where possible (i.e., for international flights). The site visit schedule should allow time for possible delays of TAAG flights.
- Accommodation in Cuvango is extremely limited. Available guesthouses are generally in a poor condition and without power or running water. A private farm (Agro Cuvango) is recommended for accommodation in Cuvango. Specialists visiting the project site should take towels.
- Due to the remoteness of the site, teams should carry lunch packs stored appropriately as well as bottled water. Satellite phones should be carried by site teams due to limited network coverage.
- Careful consideration must be given to the availability of fuel stations during site visit planning. Jerrycans should be used where required.
- There is the possibility of encountering large mammals (e.g., hippos) and crocodiles in remote areas. Specialist teams visiting remote areas should do so under the supervision/guidance of local guides and the biodiversity specialist.
- Remote site work cannot take place without the demining teams. The unexploded ordnance (UXO) guideline must also be adhered to (SRK, 2024).
- Detailed travel risk assessments must be completed before undertaking any fieldwork. The SRK risk assessment approach must be adopted if the specialist teams do not have a dedicated risk assessment.
- Any interactions with artisanal miners and information gathered on them must be approached sensitively.
- Since the socio-economic surveys have to gather information for various studies, including the land acquisition and resettlement framework as well as human rights, heritage, climate change, visual and biodiversity impact assessments, the questionnaires will need to be comprehensive. Sampling would therefore have to be carefully planned to ensure that high quality, representative data is gathered in the limited available time.
- Cellular phone connectivity is limited across most the project area. Paper-based surveys will be the preferred method of data collection for socio-economic baseline investigation.
- Artisanal and small-scale mines (ASMs) are under watch by local militia and cannot be photographed or approached without prior consultation with appropriate government stakeholders.
- Although the local municipal administrations were consulted about the project and informed of the planned specialist site visits, village or commune-based local authorities will need to be informed about the project before household surveys are undertaken in the villages over which they preside. It is therefore important that a representative from the local municipal administration accompanies fieldworkers.

7. Summary of key findings and recommendations

In summary, the reconnaissance site visit found that:

- The vegetation type between Cuvango and Chipindo is homogenous (predominantly *Brachystegia* species associated with the Miombo Forest, which is not unique but widespread in the region).
- With the exception of the Jamba substation site, all proposed substation sites are located outside urban areas on land owned by RNT. The Jamba substation is located on a site of a previous/abandoned thermal plant. There appears to be limited human activity at all substation sites.
- The general perception of stakeholders is that the project will have a positive impact on the population and will be very important for improving safety conditions (particularly in the municipal centre through public lighting), economic development and employment opportunities.
- The remoteness of the project sites will require careful planning through development of detailed itineraries before specialist surveys are undertaken. Potential logistics and accommodation constraints must be considered.
- Potential impacts on crops (e.g., maize fields and cassava) can be avoided if the powerline spans these plots. However, a number of pylons may be placed inside fields and result in economic displacement. Consideration must also be given to the fact that some crops such as cassava can take approximately one year to be ready for harvest. Although these plants may not be fully mature, farmers will need to be compensated for their loss.
- Engagement with communities in the areas being studied should consider that there may be high rates of illiteracy and that locals might not speak Portuguese, but rather indigenous languages.

Yours faithfully,

SRK Consulting (South Africa) (Pty) Ltd

Kavandren Moodley
Project Manager

Darryll Kilian
Project Partner

Lynette Herbst *PrSciNat*
Senior Social Scientist

ATTACHMENT A: SITE VISIT PLAN

Day	Time	Activity	Participants	Distance / Duration		Activity Manager	Comments / Constraints
1	6:40 - 8:00 am	Flight Luanda - Lubango	SRK+PAK		1h 20m	Geolab	
	8:30 to 9:30	**Meeting with Provincial Director of the Environment of Huíla**	SRK+PAK		2h	PAK / RNT	
	9:30 am to 1:30 pm	Travel Lubango - Jamba	All team	321 km	4h	Geolab	Road expected to be in good condition for most of the way
	1:30 to 2 pm	Lunch time	All team		1h	Geolab	Lunch at a place to be confirmed with the Municipal Administration or alternatively, we consider bringing picnic-style food.
	2 to 3 pm	**Meeting with Jamba Munincipal authorities**	All team		1h	PAK / RNT	This meeting has to be formally scheduled by the PAK or RNT representatives. It is important to confirm the time of the meetings to avoid delays for the rest of the day.
	3 to 5 pm	Travel along the track between Jamba and Cuvando with stops at some points	All team	46 km	2h	Geolab	track expected with poor conditions
	6:00 pm	Dinner and rest - Hospedaria AGRS	All team			Geolab	Food and accommodation at the AGRS hostel already pre-booked
2	8:00 am	Breakfast	All team				
	9 to 10 am	**Meeting with Cuvango Munincipal authorities**	All team		1h	PAK / RNT	This meeting has to be formally scheduled by the PAK or RNT representatives. It is important to confirm the time of the meetings to avoid delays for the rest of the day.
	10 am 1 pm	Travel in secundary road to visit to the communities between Cuvango and Chipindo and some points of interest for the biodiversity and hydrology teams	All team	~100 km	3h	Geolab	t is necessary to identify the communities to be visited in advance and ask the Municipal Administrator to notify the local authorities who will be accompanying us
	1:00 pm	Lunch time	All team		1h	Geolab	We can lunch at AGRS hostel (need to be booked) or we can consider to take picknic-style food
	2 to 5 pm	Travel in secundary road to visit to the communities between Cuvango and Chipindo and some points of interest for the biodiversity and hydrology teams	All team	~100 km	3h	Geolab	t is necessary to identify the communities to be visited in advance and ask the Municipal Administrator to notify the local authorities who will be accompanying us
	6:00 pm	Dinner and rest - Hospedaria AGRS	All team			Geolab	Food and accommodation at the AGRS hostel (already pre-booked)
3	8 to 10 am	Travel by road EN120 between Cuvango and Chipindo	All team	108 km	2h	Geolab	The road is expected to be partly rutted but with good to reasonable traffic conditions.
	10:00 am	**Meeting with Chipindo Munincipal authorities**	All team		1h	PAK / RNT	We need to book these meetings in advance so that there are no delays and we can keep travelling afterwards
	11 am to 1 pm	Travel in secundary road to visit to the communities between Chipindo and Gove and some points of interest for the biodiversity and hydrology teams	All team	~70 km	2h	Geolab	t is necessary to identify the communities to be visited in advance and ask the Municipal Administrator to notify the local authorities who will be accompanying us
	1:00 pm	Lunch time	All team		1h	Geolab	We can lunch at AGRS hostel (need to be booked) or we can consider to take picknic-style food (BEST OPTION)
	2 to 4 pm	Travel in secundary road to visit to the communities between Chipindo and Gove and some points of interest for the biodiversity and hydrology teams	All team	~70 km	3h	Geolab	t is necessary to identify the communities to be visited in advance and ask the Municipal Administrator to notify the local authorities who will be accompanying us
	4:00 pm	**Meeting with Gove Dam and substation managers**	All team		30m	PAK / RNT	This meeting has to be formally scheduled by the PAK or RNT representatives.
	4:30-6:30	Travel from Gove to Huambo	All team	115 km	2h	Geolab	The road should be in good condition for most of the route, but with some heavy traffic between Caála and Huambo
	8pm	Dinner and rest -Hotel Nino	All team			Geolab	Food and accommodation at the Nino Hotel
4	8:00 am	Breakfast	All team		1h	Geolab	
	12:00 am	Lunch time	All team		30m	Geolab	it may have to be a quick lunch depending on the time of arrival in Huambo and the flight check-in time
	2:30 pm	Flight Huambo - Luanda	All team		01:30	Geolab	

ATTACHMENT B: ATTENDANCE REGISTERS

A1: Jamba Local Authority

srk consulting

geolab Engenharia & Serviços

EXTERNAL ATTENDANCE REGISTER

Project:	Cassinga Electric Power Supply ESIA		
Meeting:	Jamba		
Project Number:	595657	**Date:**	27 February 2024
Venue:	Jamba Municipality	**Time:**	11 : 00

TITLE	NAME AND SURNAME	CELL PHONE NUMBER	EMAIL ADDRESS	ORGANISATION / DIVISION/CAPACITY	SIGNATURE
01	António [illegible]	925477747	[illegible]	Adm. Mun. Jba	
02	Domingos M. [illegible]	924122516	domingos004@gmail.com	Delegado M. SINSE	
03	Luis Casimiro	92333 6872		Chefe Estado Civil	
04	Laura C. P. Isidro	923777063	laurabalbalo@gmail.com	Adm. Mun. Jba	
05	José Carlos Nfelumba	934966528	Josecarlosquito673@gmail.com	Adm. Mun. Jamba	
06	Alfredo G. Kandundulo	923360694	kandundulo[illegible]@gm.com	Director M. H. Social	
07	João Paulo Tavares Chimo	923717223	joaopaulotavareschimo@gmail.com	[illegible]	Dir. Agricultu
08	Francisco Pereira Fernando	937603331	[illegible]	Director Infraestrutura	
09	Maduedno Chicuma	926757735	maducanoantonio@gmail.com	Director M. Energia e Agua	
10	Agostinho António	923748030	agostinhoantoniofernando@gmail.com	Ch. de Secção	
11	José Manuel Ndala	924922715	josemanuelndala28@gmail.com	Chefe de Secção	
12	Edite Catumba Martins	930399859		chefe de secção	
13	Fernanda Katava	931913232	Kativalitkunda@gmail.com	Tesoura	
14	Flora T. Oliveira	928303938	floratchenyfernandes@gmail.com	Adm. Mun. JBA	Fernandes

By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be included in the SRK/Geolab database and contacted should the need arise.

srk consulting

geolab Engenharia & Serviços

EXTERNAL ATTENDANCE REGISTER

Project:	Cassinga Electric Power Supply ESIA		
Meeting:	Jamba		
Project Number:	595657	**Date:**	27 February 2024
Venue:	Jamba Municipality	**Time:**	11:00

	TITLE	NAME AND SURNAME	CELL PHONE NUMBER	EMAIL ADDRESS	ORGANISATION / DIVISION/CAPACITY	SIGNATURE
15		Pedro António Benjamin	943907250	benjaminantonio557@gm	Chefe de Gab. Adm	Benjamin
16		António A. F. Ndala	937837747	antoniondala2011@hotmail.com	GEPE	António
17		Eduardo K. Gonçalves	928115508	2917344.93@gmail.com	Chefe de Gab Adm	Gonçalves
18		Azeredo Eduardo M. Martinho	929848510	azeredoagostinho5@gmail.com	AMS- Jamba	Azeredo
19		Evaristo Tchimbolongueca	934227411	diretortchimbolongueca@gmail.com	DIR MUN. FISC. INSPECTO	
20		Bernardo Tchinoxo	923853617	bernardotchinoxo@gmail.com	P/Secretário Geral	Tchinoxo
21		Nelius Scheepers	+27828853004	nelius@hcvafrica.com	GEOLAB	
22		Kavandren Moodley	+27832264747	Kmoodley@srk.co.za	SRK	
23		Sara Pizarro	+44 7927688956	sara.pizarro@geolab.co.ao	Geolab	Sara
24		HÉLIO VERÍSSIMO	921296797	HVERISSIMO@PAKYATIKIM.COM	PAK YATIKIM / DO	
25		Vostis Santo Raul	931417108	iraul@RNT.Comao	RNT - EP-DERS	
26		Romualdo Rodrigues M. Rimentel	943646862	RRimentel@RNT.CO.AO	RNT - EP/DERS	
27		Lynette Herbst	+27724399382	LHERBST@SRK.CO.ZA	SRK - Snr Social Scientist	
28		Delfino de Jesus	942459423	delfinodejesus48@gmail.com	Comunicação	Delfino de Jesus

By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be included in the SRK/Geolab database and contacted should the need arise.

A2: Cuvango Local Authority

srk consulting

geolab Engenharia & Serviços

EXTERNAL ATTENDANCE REGISTER

Project:	Cassinga Electric Power Supply ESIA		
Meeting:	Cuvango		
Project Number:	595657	**Date:**	27 February 2024
Venue:	Cuvango Municipality	**Time:**	14:00

TITLE	NAME AND SURNAME	CELL PHONE NUMBER	EMAIL ADDRESS	ORGANISATION / DIVISION/CAPACITY	SIGNATURE
	Luís Ndala	924292529	Luismarcalouks@Gmail.com	ADM. MUN. LVGO	
	Daniel Sanguevo	938159668	dsanguevo1@gmail.com	Secretaria Geral	
	Ester Tomás	923718258	estertomas1405@gmail.com	Gab. Jurídico	
	Cuvanda J. da Lassis	940156075	Jalemylassis@gmail.com	Soc. Amb. e Saneamento	
	António São Francisco	937437159	saofrancisco05@hotmail.com	Div. M. Infra-est	
	Francisco Xavier	929254100		SZWSE	
	Marcela Machado	929889166	MarcelaFofa23@gmail.com	Directora IGePE	
	Manuel A. Correia	923361165	manuelantóniocorreia90@gmail.com	D. Ministr e EMPNA	
	Romualdo Rodrigues M. Pimentel	943646862	RPimentel@RNT.co.AO	RNT-EP/DERS	
	[illegible]	931417108	itaul@RNT.co.AO	RITE/DERS	itaul@
	M.ª Verissimo	921267717	HVERISSIMO@PAKYATIKIM.COM	PAKYATIKIM/DO	
	Sara Pizarro	+244927686956	Sara.Pizarro@geolab.co.ao	Geolab (Estiva)	
	Kavandren Moodley	+27832264747	kmoodley@srk.co.za	SRK	
	Lynette Herbst	+27724399382	LHerbst@srk.co.za	SRK - Snr Social Scientist	

By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be included in the SRK/Geolab database and contacted should the need arise.

	NELIUS SCHEEPERS	+27828833004	nelius@hcvafrica.com	GEOLAB	
	Teresa Daniela Luis Fernandes	932098294	meirelesandinda@gmail.com	Técnica da Acção Social	

A3: Chipindo Local Authority

srk consulting

geolab Engenharia & Serviços

EXTERNAL ATTENDANCE REGISTER

Project:	Cassinga Electric Power Supply ESIA		
Meeting:	Chipindo		
Project Number:	595657	**Date:**	28 February 2024
Venue:	Chipindo municipality	**Time:**	11:00

TITLE	NAME AND SURNAME	CELL PHONE NUMBER	EMAIL ADDRESS	ORGANISATION / DIVISION/CAPACITY	SIGNATURE
	Maria Firman dos Santos	943073133	Mariafirmansantos@gmail.com	A.M. do Chipindo	
	Octávio Loussaty Cabral Miranda	932503536	Cabraloctaviomiranda@gmail.com	Director M. Energia e Agua	
	Mateus Kassonga	925557549	mateuskassonga@gmail.com	Secretário da Adm.	
	Fernando I. Sakala	935974767	fernandosakala@gmail.com	Chefe de Secção/CLI	
	Raimundo Rodrigues M. Pimentel	943 646862	RPimentel@RNT.co.ao	RNT-EP/DERS	
	Hélio VERÍSSIMO	921296797	HVERISSIMO@YAKYATIRIM.COM	YAKYATIRIM/DO	
	Sara Rizzaro	927686956	Sara.Rizzaro@geolab.co.ao	GEOLAB	
	Moisés Chiringa Cardina	934049860	prof.moiseschiringacardina@gmail.com	Adm. M. Adjunto	
	Ivo D'Ali Saúde	931417108	isaude@RNT.co.ao	RNT - EP	
	NELIUS SCHEEPERS	+27828833004	nelius@hcvafrica.com	GEOCAB	
	Lynette Herbst	+27724399382	LHERBST@SRK.CO.ZA	Snr. Social Scientist	
	Khumbren Moodley	+27832264747	kmoodley@srk.co.za	Snr. Env. Scientist	

By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be included in the SRK/Geolab database and contacted should the need arise.

A4: Gove Substation Managers

srk consulting

geolab Engenharia & Serviços

EXTERNAL ATTENDANCE REGISTER

Project:	Cassinga Electric Power Supply ESIA		
Meeting:	Gove		
Project Number:	595657	**Date:**	28 February 2024
Venue:	Gove offices	**Time:**	14:30

TITLE	NAME AND SURNAME	CELL PHONE NUMBER	EMAIL ADDRESS	ORGANISATION / DIVISION/CAPACITY	SIGNATURE
	Sara Pizarro	927686958	Sara.Pizarro@geolab.co.ao	GEOLAB	
	António Lucacio	924945416	aclucacio17@hotmail.com	PRODEL-EP	
	Kavandra Moodley	+27832264747	Kmoodley@srk.co.za	SRK	
	Lynette Herbst	+27724399382	LHERBST@SRK.CO.ZA	Snr Social Scientist SRK	
	André Diogo	924206833	agdiogo5@gmail.com	PRODEL-EP	
	Romualdo Rodrigues M. Pimentel	943646862	RPimentel@RNT.co.ao	RNT-EP/DERS	
	José Caetano	936763941	CaetanoSenior21@gmail	Prodel-EP	
	Ivo D'Ali	931417108	irael@RNT.co.ao	RNTT-EP	
	Hélio Veríssimo	921296797	HVERISSIMO@PAKYATIRIM.COM	PAK YATIRIM / DO	
	Nelius Schoeman	+27828833004	nelius@hcvafrica.com	GEOLAB	

By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be included in the SRK/Geolab database and contacted should the need arise.

Appendix J: Stakeholder Engagement for ESIA Findings

Appendix J1: Comments and Responses Register

Appendix J1 – Comments and Responces Register

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Jamba Municipal Administration		
Date:	15/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
Luís Cambinda Ndala	Administrator of the Municipality of Jamba	We know that our communities will only develop if they have water and electricity. Based on the map of the project area, the commune of Dongo may not benefit and this could lead residents to vandalise the infrastructure.	Regarding the extension of the line to the Dongo commune, the project only envisages connections to the Jamba headquarters. There are other electrification projects being planned for the region, according to the documents we had access to, which could certainly benefit other localities in the municipality of Jamba. However, we take note of this concern on the part of the Managing Director and will include it in our report.
António Bernardo Caála	Deputy Administrator Technical Area of the Municipality of Jamba	After the infrastructure is built, who will maintain it? Equipment and access routes?	In Angola, the management of high-voltage power transmission lines is the responsibility of RNT (Rede Nacional de Transporte de Electricidade).
Fernando Cambinda	Elder and resident of the host commune, Jamba	Here in Jamba there are minerals everywhere, only the Cassinga mine is mentioned. In colonial times the Lobito Mining Company started in Cassinga.	Comment registered.
José Cassanga Calulu	Soba Grande da Embala Cuandja	Those cemeteries they say they've found in our neighbourhoods, how will they be respected?	A minimum number of physical journeys is envisaged and in the operational phase

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Jamba Municipal Administration		
Date:	15/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
			some subsistence activities, celebrations and rituals will be able to continue under the power lines, but with some restrictions, and servitude zones will be defined on the basis of the Basic Law of the Electricity System.
Evaristo Mucuve	Deputy Administrator of Jamba commune	Regarding the *Khoisan* community, we would like to point out that there is no *Khoisan* community here in the commune, they are 70 kilometres from the headquarters of commune of Cassinga, and it is important to mention this in your report. Another question, what is the percentage or local quota for employment in this project? What about the families who will lose their land? How will compensation be made?	With regard to employment benefits, our study does not mention a quota for local employment; this will depend on the contractor and the owner of the work to define the local labour required. Families who could lose their land will be identified and registered. This work will involve the local administration and traditional authorities and based on the criteria established by the project and accepted by the parties, the appropriate resettlements and other forms of compensation will be made.
João Chimo	Municipal Director of Agriculture	As for the environmental and social impacts, they spoke in general terms. And with regard to compensation, we can rest assured that agricultural fields will only be lost in those cases where it is not possible to divert the line.	Comment registered.
Maducamo Chicusse	Municipal Director for Energy and Water	In the explanation of the project, there was no mention of the low-voltage line, what is the length of the low-voltage line? And why isn't the	The project is for a high and medium voltage transmission line, and only the RNT (Empresa Nacional de Transporte de Electricidade) will be involved at this

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Jamba Municipal Administration		
Date:	15/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
		company ENDE (Empresa Nacional de Distribuição de Electricidade) at the meeting?	stage, only afterwards, at the home connection stage, will ENDE be called in.
Simão da Cunha Jalaimo	Civil society representative	It's not the first time that Jamba has benefited from electricity, in colonial times it was supplied from the Matala Dam. The important thing is to wake up our sleeping elephant, the mine. We'd really like to know when the population will be able to benefit from energy in their homes?	We are finalising the Environmental and Social Impact Assessment Report, an important stage in the process, without which funding will not be made available and construction work cannot begin. As for the date, it's not possible to say exactly, but according to the documents the team had access to, the project will be completed in two years.
Adriano Abílio	Civil society	Let the energy come now, we want to exploit the iron mine, we want jobs for young people.	Comment registered.
Helder dos Santos	Civil servant	With the project, besides the employment, we'll be able to have energy in our homes so that we can switch on the TV and radio without any problems and follow the news about national and international sport and much more. Today, the only job we have for young people is to go to the plots and take motorbike taxis.	Comment registered.
João Graça	Civil servant	There are no higher education colleges here in the municipality; young people are leaving to go to work in the cities of Lubango, Huambo and Benguela. We also have a problem with support for young people who have received professional training.	Comment registered.

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Jamba Municipal Administration		
Date:	15/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
		We were promised kits and other training materials, but in practice we've seen nothing.	
Veronica Maria	Head of the Municipal Family and Women's Promotion Section	This project is welcome here. We live with power from generators. We can't keep food in the fridge because the power isn't supplied all day, only from 6pm to 11pm. We also know that where the lines pass, the families who will lose their plots will be compensated. We've also had problems with domestic violence due to husbands' lack of employment. When women complain about their husbands' lack of employment, this often leads to fights in families. We ask that you also look at the employment of women when recruiting.	Comment registered.
Maria Filipina Candeeiro	Employee of the Municipal Administration and the Promaica Organisation (Catholic Women)	We have problems with drought, lack of water in the cacimbas (handmade wells). With electricity we can also have water in the fountains because.	Comment registered.
		We are also concerned about reports of national and foreign workers raping children where they go to work, but this has never happened here in Jamba.	The project includes specific training plans for workers and codes of conduct for employees.
Maria Teresa Mónica	Administrative officer at the CNE (National Election Commission)	We also have problems with higher education. As soon as the children finish secondary school, parents are obliged to take them to Lubango city to continue their studies, and many families don't have this possibility.	Comment registered.

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Galengue commune - School complex no. 1554		
Date:	16/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Reply**
Pascoal Bongo Cassange	*Regedor* of Galengue	We're happy, but we don't want this project to pass to Cassinga without leaving power in the commune of Galangue, we don't want to continue in the dark. The schools and hospitals also need this electricity.	This project only envisages connections to the municipal centres.
André Jamba	Professor	We hope they'll also build us sports fields and recreation centres, which will help a lot the young people.	Some companies, as part of their social responsibility, can also get involved in this type of project.
Agostinho Gonçalves	Primary school teacher in Galengue	We're asking for the commune to benefit too. We have adult students at our school who could study at night and go to the plots during the day. This is not possible because the generator that supplies the commune is not working again (is always breaking). For example, you couldn't be able to give a presentation because the generator has been broken for a few days.	Comment registered.
Francisco Albino Boneu	Serralheiro – locksmith	We ask that this project team realise that the community really needs electricity. Have compassion on us. The hospitals need power at night.	The municipal administrator and the RNT technician are here with us at this meeting, and they are certainly taking note of all these concerns.
Victorino Ngunga	Teacher at school no. 1554, commune center	The project is welcome, it is with the supply of electricity that young people will realise their dreams, they need to listen to the radio and watch television to keep up to date. The farms in the municipality also need electricity. Thank you to the government for this initiative.	Comment registered.

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Galengue commune - School complex no. 1554		
Date:	16/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Reply**
Florentino Tchissequele	Coordinator of the Communal Consultation Forum	We ask the sobas to talk to the families who are going to lose their ploughs.	The project has drawn up a resettlement framework and in due course these families will be identified and registered and resettlement will be carried out on the basis of national legislation and international standards and with the direct involvement of local authorities.
Teresa Dinangui	Farming woman	We have seed problems, sometimes we don't have anything to plant in the fields.	Comment registered.

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Chipindo Municipal Administration meeting room		
Date:	17/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
José Josias Cassinda	Director of School no. 1437	When will the project start? They only presented us with the negative and positive impacts. A substation will be built in Chipindo, but we don't know if it will also supply the Bimba and Bungei communes.	The project follows phases and is currently in the ESIA preparation phase, which is crucial for financing the project and starting work. Bungei and Bimba are outside the project area.
Alberto Tchitunda dos Santos	Municipal Civil Protection and Fire Brigade Officer	There are so many promises in the country, but when will the project start?	As already mentioned, the project will start if the environmental licence is granted and funding is made available.
José Tomás Galepete	Carpenter	First of all, I'd like to thank the facilitator of this meeting, he said a lot of good things. But I want to know what the price will be for electricity in our homes. We ask that it be electricity for everyone, there are families who will not be able to afford electricity.	As for the payment rates for future electricity consumers of this project, this will be determined by ENDE and the municipal administrations.
António Manuel Kalembe	Soba from Oko village	Our village is next to the main road, what am I going to tell my people?	Oko is in Chipindo's headquarters commune, so will certainly be able to feel the positive and negative impacts more acutely.
José Paulo Adriano	Teacher and Director of School no. 1832	I want to focus on the benefits of the project because the lack of this social good has been the cause of demographic desertification here in the municipality. Chipindo really need this kind of clean energy.	Comment registered.

COMMENTS AND RESPONSES REGISTER			
Meeting place:	Chipindo Municipal Administration meeting room		
Date:	17/07/2024		
Name	**Function/Organisation**	**Comment / question**	**Answer**
Albino Portásio	Regedor of Capuca	The government has built some schools in the villages, but there are no teachers	Comment registered.

Appendix J2: Stakeholder Engagement Photos

Appendix J2 – Photos ant Attendance Register

Figure 1: Consultation Meeting in Jamba Municipal Administration

Figure 2: Consultation Meeting in Jamba Municipal Administration

Figure 3: Meetings with youth representatives from Jamba

Figure 4: Meetings with women representatives from Jamba

Figure 5: Consultation meeting in Galengue commune, Cuvango municipality

Figure 6: Consultation meeting in Galengue commune, Cuvango municipality

Figure 7: Participation of women in the general consultation meeting in Galengue commune, Cuvango municipality

Figure 8: Meeting with women representatives in Galengue commune, Cuvango municipality

Figure 9: Meeting with youth representatives in Galengue commune, Cuvango municipality

Figure 10: Meeting with a Khoisan family in Kassindi village, Cuvango municipality

Figure 11: Consultation in Chipindo commune, Chipindo municipality

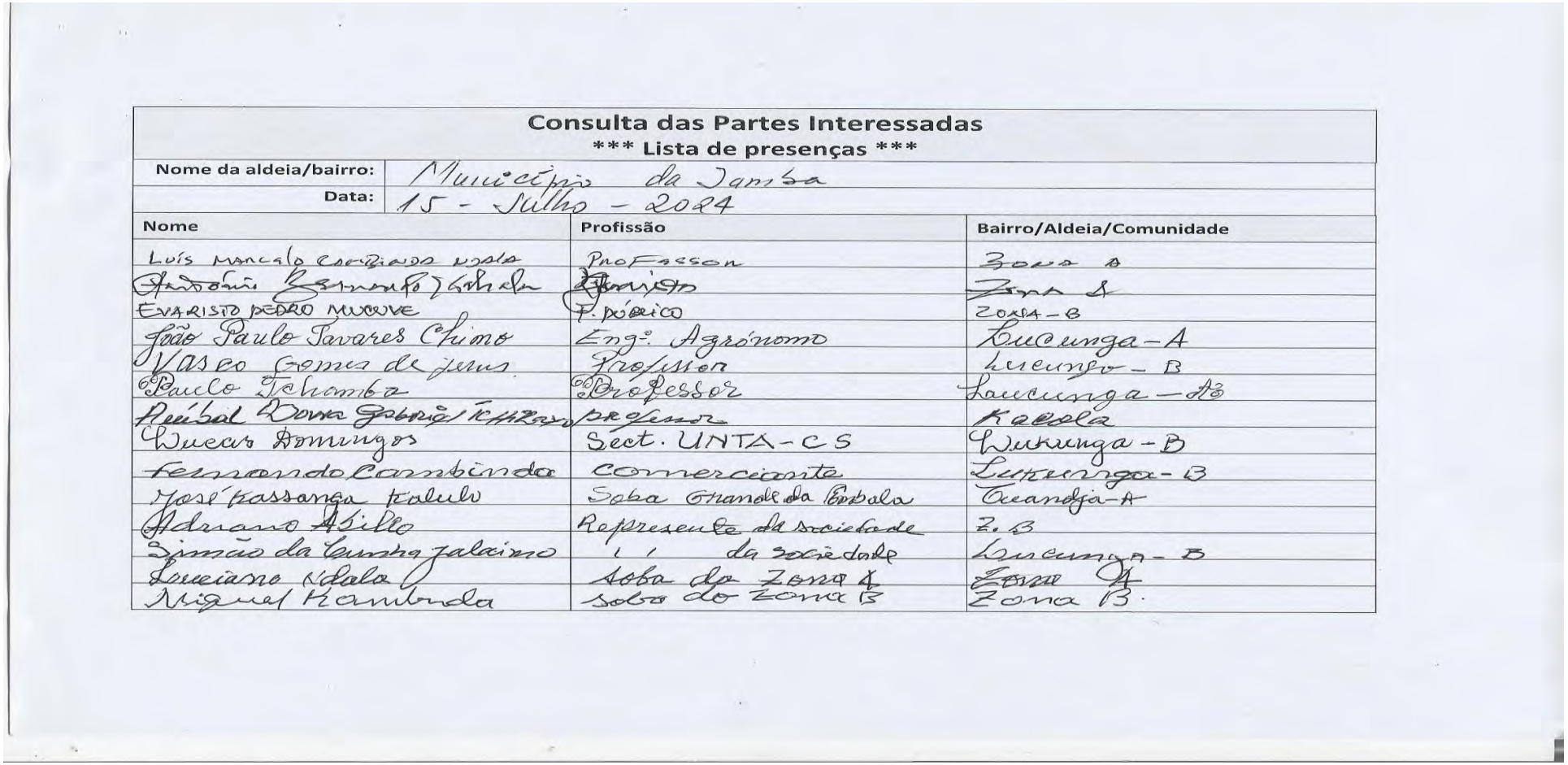
Figure 12: Consultation in Chipindo commune, Chipindo municipality

Figure 13: Consultation in Chipindo commune, Chipindo municipality

Appendix J3: Attendance Register

Appendic J3 - Attendence Register

Município da Jamba



Consulta das Partes Interessadas
***** Lista de presenças *****

Nome da aldeia/bairro:	Município da Jamba
Data:	15 - Julho - 2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Luís Marcelo Cosmidas Vasta	Professor	Zona A
Fernando Bernardo Gabriel	Professor	Zona A
Evaristo Pedro Muvove	F. público	Zona-B
João Paulo Tavares Chimo	Engº. Agrónomo	Lucunga-A
Vasco Gomes de Jesus	Professor	Lucunga - B
Paulo Tchomba	Professor	Lucunga - A
Aníbal Dona Gabriel Kahuka	professor	Kabala
Lucas Domingos	Sect. UNTA-CS	Lukunga-B
Fernando Cambinda	comerciante	Lukunga-B
José Kassanga Kalulu	Soba Grande da Kabala	Kuandja-A
Adriano Abílio	Representa da sociedade	Z. B
Simão da Cunha Jalaimo	" da sociedade	Lucunga-B
Luciano Vdala	Soba da Zona A	Zona A
Miguel Kambonda	soba do Zona B	Zona B.

Continuação

Consulta das Partes Interessadas
*** Lista de presenças ***

Nome da aldeia/bairro:	Município da Jamba
Data:	15 de Julho 2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Lucas Inteia	Soba	Lucunga-B
Paulo Ndala	Soba Pequeno	Vihongue
Carlos Domingos Kafita	Soba Pequeno	pedreira
Domingos Tomé Kachenguela	Soba Pequeno	Lucunga-C
Augusto Kambinda	Soba Pequeno	Kavandja-B
Francisco Ndala Sinhemo	Soba pequeno	Morro 1º
Constantino Bonaciano Nipaka	Coordenador	Esfera
Maduedno A.F. Chiousse	Director Municipal Energia água	Lucunga-C
Bernardo F. Tchinoxo	Administrativo	Zona-A
Pedro António Benjamim	Administrativo	Lucunga
Romualdo Rodrigues Manuel Pimentel	Supervisor Regional Sul RSSA BAT	Lubango - Bairro comercial
Adão Diogo Paulino Vicente	Consultor / Geólogo	Geólogo Luanda
Filipe Kando	Consultor / Geólogo	Luanda

Reunião Com As Mulheres.

Consulta das Partes Interessadas
*** Lista de presenças ***

Nome da aldeia/bairro:	Município da JAMBA
Data:	15/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Verónica Maria Lutra	Chefe de Secção Municipal da F.	Zona-A
Maria Teresa Mónica Afonso	Oficial Administrativa	Zona B
Delfina Miriama Tchicalica	Professora	Zona-B
Maria Filipina Candeeiro	Técnica Média Adm. M.	Zona B

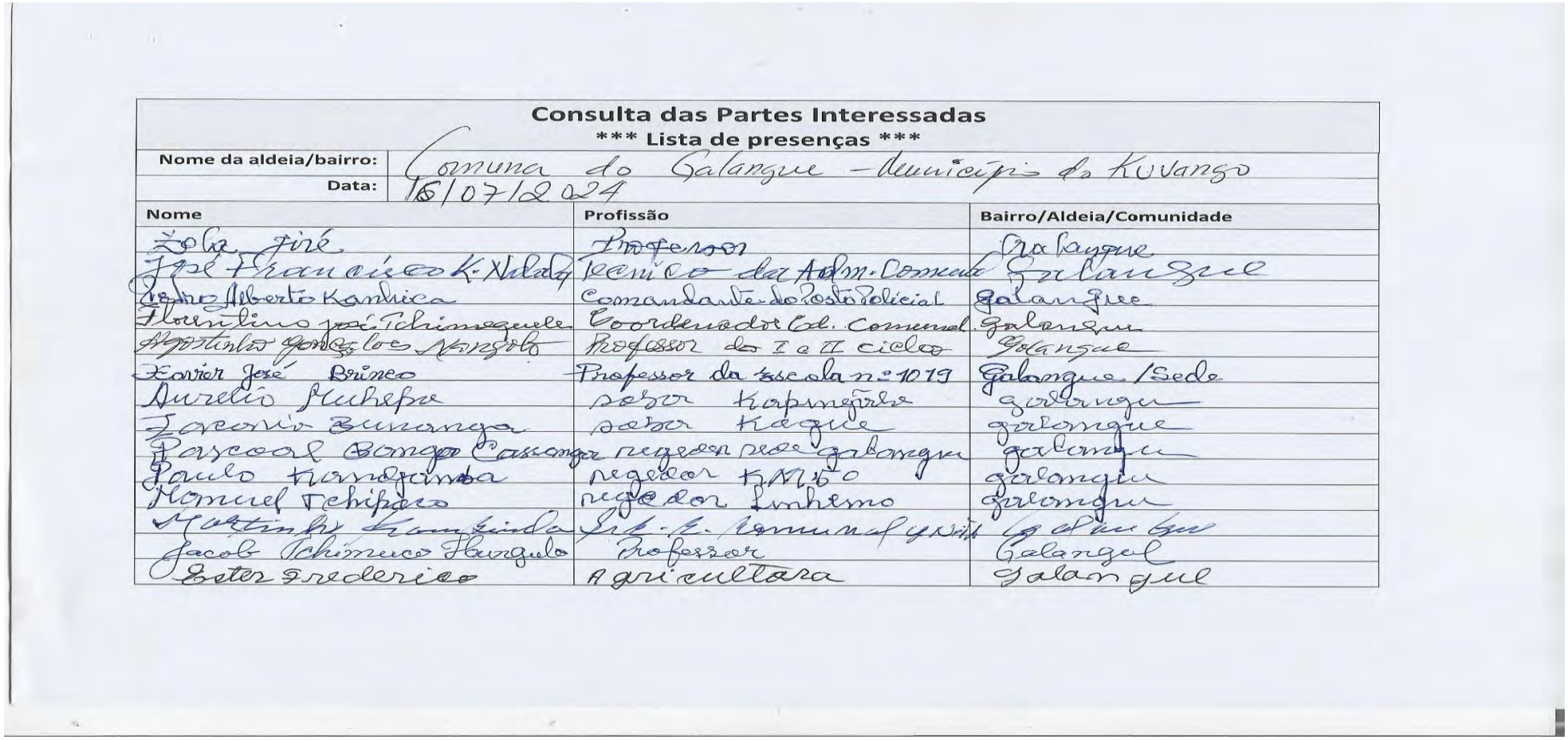
Reunião com a Juventude

Consulta das Partes Interessadas
*** Lista de presenças ***

Nome da aldeia/bairro:	JAMBA
Data:	15/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Helder dos Santos	Funcionário Público	Zona-B
João Paulo Graça	Funcionário Público	Académica
Francisco Muteca Emilio	Doméstico	Eyela
Damião Gonçalo Elias	Camponês	Eyela
Júnior Francisco Kamanya	Funcionário público	Lumunya - B

Município do Cuvango



Consulta das Partes Interessadas

***** Lista de presenças *****

Nome da aldeia/bairro:	Comuna do Galangue – Município do Kuvango
Data:	16/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Zola Jiré	Professor	Galangue
José Francisco K. Nalaka	Técnico da Adm. Comunal	Galangue
Pedro Alberto Kandjica	Comandante do Posto Policial	Galangue
Florentino José Tchimequele	Coordenador Cd. Comunal	Galangue
Apolinário Gonçalves Nangolo	Professor do I e II ciclo	Galangue
Xavier José Bruno	Professor da Escola nº 1079	Galangue / Sede
Aurélio Muhepa	sapateiro	galangue
Faceonio Bumanga	sapateiro	galangue
Pascoal Bonga Cassanga	negociante	galangue
Paulo Hamukanda	negociante	galangue
Manuel Tchipaca	negociante	galangue
Martinho Kamutinda	Sub-C. Comunal	Galangue
Jacob Tchimuco Hangalo	Professor	Galangue
Ester Frederico	Agricultora	Galangue

Cont. 2

Consulta das Partes Interessadas

*** Lista de presenças ***

Nome da aldeia/bairro:	Comuna do Sambangue - Município do Cuvango
Data:	16/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Ambros Dala	Soldador	Komandu nu
Domingos manuel	Soldador	1º de maio
Manuel Feijoa	Os bumes	Mambuma Bahaya
Francisco Alberto Salomão Bonete	Serralheiro	1º de Maio.
Paulino António Wassinaka	Agricultor	1º de Maio
Daniel Ngango	Agricultura	1º de Maio
Armândio Simde	Agricultura	1º de Maio
André Samba	Professor	1º de Maio
Pedro Cabral	M. Construção Civil	Chicamba
Arcélio Domingos	Agricultora	Madumbe
João Domingos	Categorista	Mapumbe
Pedro Cassinda	Guia	Kapapala
Ana Kandeia	Companheira	Kapapala
Caroline nene	compromisso	

Cont. 2

Consulta das Partes Interessadas

*** Lista de presenças ***

Nome da aldeia/bairro: Comuna do Galangue - Município do Cuvango

Data: 16/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
António Cassindo	Camponês	1º de maio Sede
Rosalino Vonito	Camponês	1º de maio Sede
Artur Tchipende	Camponês	Kambuengue
Luciano Abelino	Professor	Auenje - Galangue
Firmino Jacinto	Contabilista	Kapingala
Miguel Fequeta	Camponês	Kandeume
Denice Jamba	Camponês	Mandeume Sede
Moisés Ngala Viti	Barbearia	Sede Comunal
Agostinho MACEDO	comerciante	Mondume
Bernardino Jamba Viti	Camponês	1º de Maio Sede
Júlio Alexandre Tito	Comerciante	Sede
Victorino Gabriel Nguinga	Professor	Sede Galangue
Augusto Kamsindo	técnico agrícola	Km-50
Fernando Jaime da C. Assis Simão	Engenheiro ambiental e florestal	Galangue

Cont 4

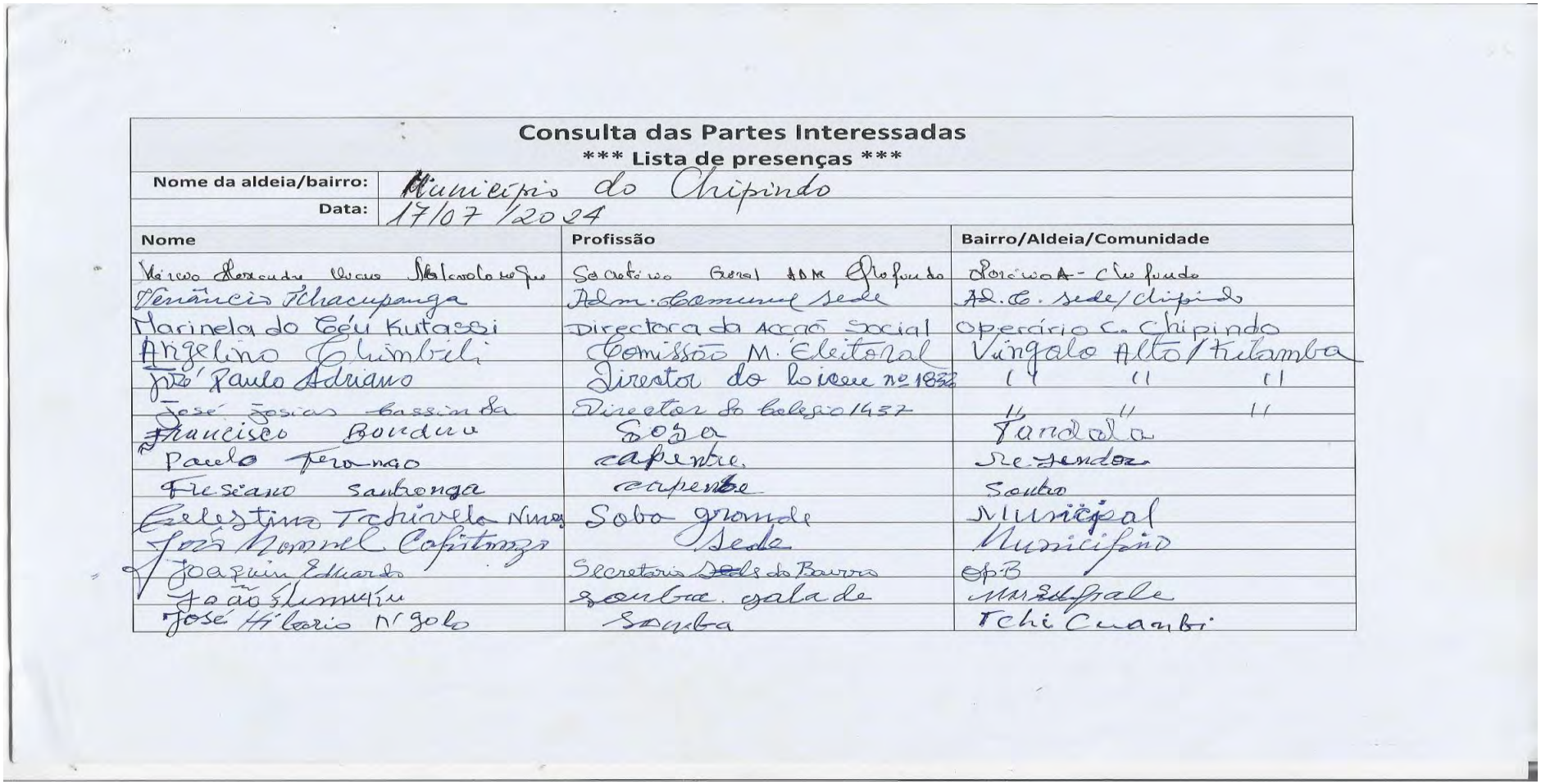
Consulta das Partes Interessadas

*** Lista de presenças ***

Nome da aldeia/bairro:	Comuna do Calangue - Município do Kuvango
Data:	16/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Ana Maria Nacuhe Ntamba Ndala	chefe de secção da acção social	Calangue
Filipa Kado	Consultor Gestão	

Município do Chipindo



Consulta das Partes Interessadas
***** Lista de presenças *****

Nome da aldeia/bairro:	Município do Chipindo
Data:	17/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Marcos Mercadu Lucas Malavolo Luque	Secretário Geral ADM Chefundo	Porcino A - Chefundo
Venâncio Tchacupanga	Adm. Comuna Sede	AA. CC. sede/chipindo
Marinela do Céu Kutassi	Directora da Acção Social	Operário C. Chipindo
Angelino Chimbili	Comissão M. Eleitoral	Vungalo Alto/Kulamba
José Paulo Adriano	Director do Colégio nº 1852	" " "
José Josias Cassinda	Director do Colégio 1452	" " "
Francisco Bordado	Sosa	Tandala
Paulo Tchimbo	carpintre	Re-tendas
Fresciano Sambonga	carpintre	Soubo
Celestina Tchivela Nunes	Soba grande	Municipal
José Manuel Capitanga	Sede	Municipio
Joaquim Eduardo	Secretário dos Bairros	Op-B
João Chimuíne	Samba. gala de	Mar Edifício
José Hilário N'golo	Samba	Tchi Cuambi

Cont. 2

Consulta das Partes Interessadas

*** Lista de presenças ***

Nome da aldeia/bairro:	Município do Cuipiando.
Data:	17/07/2024

	Nome	Profissão	Bairro/Aldeia/Comunidade
	Manuel Tchitoia	Jaba	Ipoco
	Manuel Capetão Sabo	Soba	Vingolo
	Victor António	Soba	Kapuca
	Jorge Daniel	Soba	Operário B
18	Alberto Fortásio	Pejador de Hombalas de Capuca	Capuca
	Pedro Tchitunda dos Santos	Agente de Proteção Civil B.	
	José Tomás Carlepete	Coordenador dos Carpinteiros	Operário B
	Adelino Ulica		Chinguenguei
	Domingos João		Quissuambi
	São Batista		Kapi Kassambi
	José Mamuyela		Chicuambi
	Bartolomeu Feca		Chicuambi
	Paulino Cavoso		Tobaro
	Adolfo N. Faienda		Vingolo

Cont. 3

Consulta das Partes Interessadas
*** Lista de presenças ***

Nome da aldeia/bairro:	Mumáya do Chipindo
Data:	17/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Teresa Dimarque		Tandala
João Manuel		
Albino Tchimuco		Tamokaka
Augusto Nguenga		Hoko
António Manuel Kalembo	Agricultura	Hoco
Lucas Vessesse	Agricultura	Hoco
António Jimbi		Hoco
Florentino Manoli Pedro	Camponês	Kapuca
Cristiano Schacussanga	camponês	capuca
Dimas Henrique	camponês	capuca
António cahala	camponês	capuca
Domingos Feliz	camponês	capuca
Domingos Manuela	camponês	capuca

Cont. 4

Consulta das Partes Interessadas
*** Lista de presenças ***

Nome da aldeia/bairro:	Município de Chipindo
Data:	17/07/2024

Nome	Profissão	Bairro/Aldeia/Comunidade
Jaime Canepa	camponês	campuca
Adelmento Kuteí Tomás	Camponês	Huco
Alberto Nguva	Camponês	Huco
Manuel [illegible]	[illegible]tino	Huco
Feliciano Chipolonga	Camponês	Huco
Bernardo Soato Jamba	Pedreiro	Vingolo
Miguel Augusto A. dos Santos	Técnico DA ACÇÃO Social	Administração Municipal
Romualdo Rodrigues M. Pimentel	Supervisor Regional S. OSSA	Lubango
Adão Diogo Paulino Vicente	Consultor Geolab	Luanda.
Filipe Kodo	Consultor Geolab	

Appendix K: Visual Methodology

Visual Impact Assessment (VIA) Methodology

The following outlines the VIA methodology adopted as extracted from the VIA specialist study, Volume 4, Appendix L.

Visual Exposure

Visual exposure is determined by an object's "zone of visual influence" or how visible an object may be in the landscape. The visual exposure of an object can be broken down into two elements:

- Firstly, how exposed is the object to the surrounding area? This can be determined by the topography in which the object is located; and
- Secondly, how exposed are viewers to the object? This can be determined through topography and land use in which the viewer is situated.

The topography of an area limits or exposes the visibility of an object. To assess how topography influences the visual exposure of a feature, a predictive model known as a "viewshed" is used.

A viewshed model uses topography datasets to predict the visibility of a feature in the surrounding landscape. This model assumes that the surface is smooth (not taking into account vegetation and man-made objects). The viewshed model also does not take into account distance from the project, this is assessed in Section 7.1.2 of the VIA. Due to these aspects, a site verification of the viewshed is usually undertaken in the form of a site visit to moderate the outcome of the viewshed model. As a site visit was not feasible, the visual exposure rating has been determined by solely analysing the viewshed results. Table 1 shows the rating criteria used to determine predicted visual exposure, i.e., predicted visibility of infrastructure in the landscape.

Table 1: Visibility criteria (Exposure)

Visibility Ranking			
Not Visible	Marginally Visible	Visible	Highly Visible
Final Visibility Criteria (Exposure Rating)			
1	2	4	5

For the overhead powerlines the visual exposure was determined by calculating the portion of the powerline visible from each building (identified in the Open Buildings dataset) within a 2km radius of the proposed powerline route, and by averaging the result. The visual exposure of the overhead line was determined to be **marginally visible (2.29)** for the Gove-Chipindo-Cuvango OHL and **marginally visible-to visible (2.96)** for the Cuvango-Jamba OHL.

Footprint areas were not available for the proposed substations. The footprint areas were assumed and an exposure rating predicted by calculating the percentage of the study area that the substation could potentially be visible from. The visual exposure of the substations was determined as follows: Chipindo **marginally visible (2.33)**, Cuvango **marginally visible-to-visible (3)** and Jamba **marginally visible-to-visible (2.66)**.

Information regarding the positioning and height of the pylon infrastructure and the design of the lighting for the medium voltage network was not available at the time of the VIA. It is expected that the visual exposure to visual receptors in the area will be limited to residents within close proximity of the infrastructure.

Viewing Distance and Visibility

The distance of a viewer from a proposed new development or infrastructure is an important determinant of the magnitude of the visual impact. This is due to the visual impact of an object diminishing / attenuating as the distance between the viewer and the object increases.

Hull and Bishop, 1988 identify the inverse relationship between viewing distance and visual impact, this relationship can be described as an exponential decrease in impact as the distance from the site or infrastructure increased. Figure 1 shows this relationship.

Traditional viewsheds do not consider the distance between the viewer and the infrastructure when determining the visibility of infrastructure. A method, known as the Fuzzy Viewshed, attempts to take into account the distance a viewer is from the proposed development (refer to Figure 2 to Figure 4).

Equation 1 (Ogburn, 2006) defines the equation used to determine the possible impact of a feature in the landscape, where:

μ = fuzzy membership

dvp->ij= distance of object from the viewpoint

b1 = maximum distance from viewpoint of clear visibility

b2 = distance from viewpoint at which visibility drops to 50%

For this instance, and based upon the Hassell Matrix, the definition of where a feature may become 50% less visible was 1km.

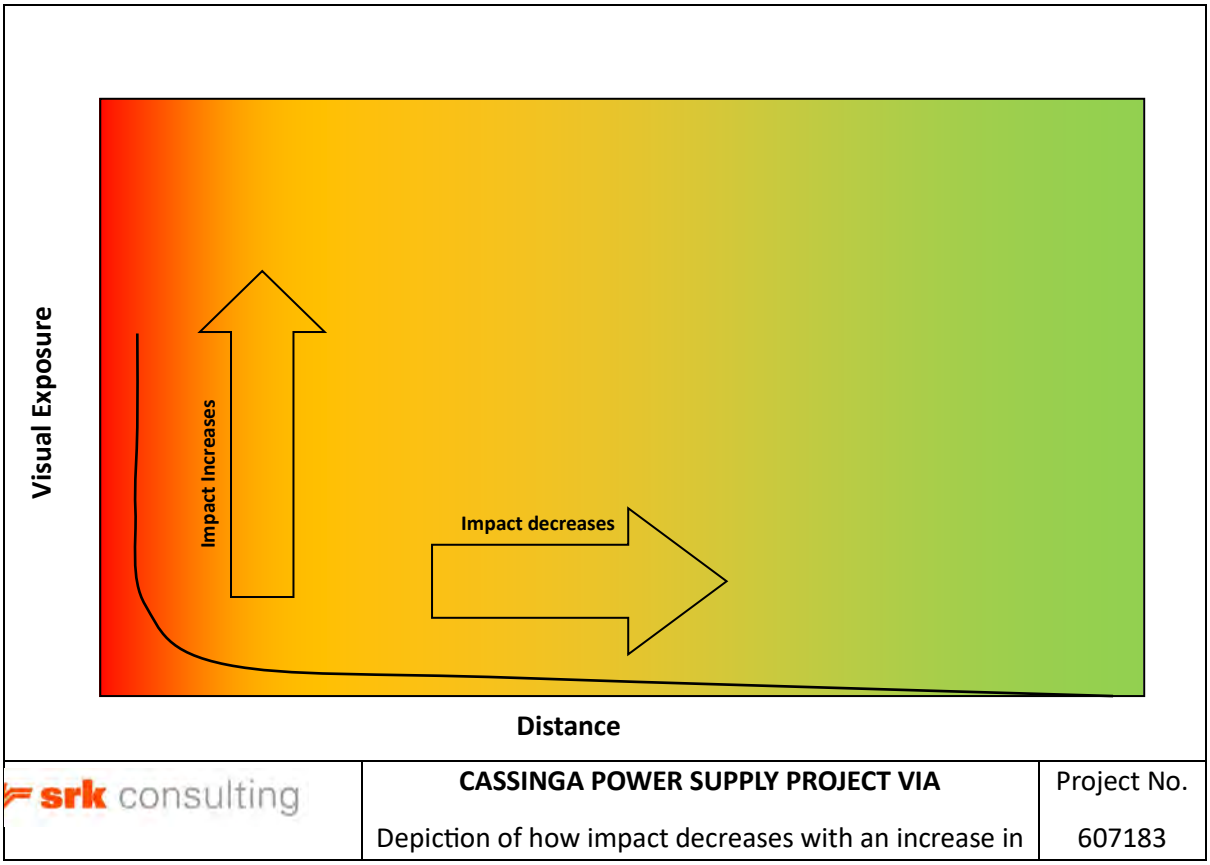
$$1 \; for \; d_{vp \rightarrow ij} \leq b_1$$

$$and$$

$$\mu(x_{ij}) = \frac{1}{\left(1+2\left(\frac{d_{vp \rightarrow ij} - b_1}{b_2}\right)^2\right)} \; for \; d_{vp \rightarrow ij} > b_1$$

.... Equation 1

Figure 2 to Figure 4 indicates the Fuzzy Viewshed for the overhead lines and the substations.



srk consulting	**CASSINGA POWER SUPPLY PROJECT VIA** Depiction of how impact decreases with an increase in	Project No. 607183

Figure 1: Relationship between impact and distance from a site (after Hull and Bishop, 1988)

The following rating system (Table 2 and Table 3) has been incorporated spatially with the viewshed to moderate distance between a viewer and an object. This rating system does not however, take into account all existing features (such as vegetation and man-made structures). Using the selected viewpoints and site points, it is possible to create a representative ranking for viewing distance and visibility for the infrastructure.

Table 2: Distance Rating System for high voltage overhead lines and towers

Location of project infrastructure (From Viewpoint)	Category	Value	Description
0 to 200 m	Adjacent	5	Adjacent – Proposed infrastructure can be clearly seen. Usually on the property boundary or property grounds.
200 m to 600 m	Foreground	4	This is the zone in which details such as colour, texture and form can be appreciated. Objects in this zone are highly visible unless obscured by other landscape features, existing structures or vegetation.
600 m to 1.2 km	Middle ground	3	The zone which occupies the area “between” detail and indistinct colour and line discernment. Objects in this zone can

			be classified as visible to moderately visible unless obscured by other elements within the landscape.
1.2 km to 2 km	Distant middle ground	2	This zone is discerned by means of line and colour. Texture and form are generally not seen. Objects in this zone can be classified as marginally visible to not visible. Areas beyond 5 km are usually not investigated as the impact would be negligible on these areas.
2 km and greater	Background	1	Background – Not Visible (The facility can hardly / not be seen).

Table 3: Distance Rating System for substations

Location of project infrastructure (From Viewpoint)	Category	Value	Description
0 to 600 m	Adjacent	5	Adjacent – Proposed infrastructure can be clearly seen. Usually on the property boundary or property grounds.
600 m to 1 km	Foreground	4	This is the zone in which details such as colour, texture and form can be appreciated. Objects in this zone are highly visible unless obscured by other landscape features, existing structures or vegetation.
1 km to 3 km	Middle ground	3	The zone which occupies the area "between" detail and indistinct colour and line discernment. Objects in this zone can be classified as visible to moderately visible unless obscured by other elements within the landscape.
3 km to 5 km	Distant middle ground	2	This zone is discerned by means of line and colour. Texture and form are generally not seen. Objects in this zone can be classified as marginally visible to not visible. Areas beyond 5 km are usually not investigated as the impact would be negligible on these areas.
5 km and greater	Background	1	Background – Not Visible (The facility can hardly / not be seen).

The high voltage overhead transmission lines were evaluated using digitally placed viewpoints on roads and within communities and using a count of buildings identified in the Open Buildings layer. For the overhead lines most of the buildings fell in the distant middle ground category, however for the Gove-Chipindo-Cuvango overhead line most of the viewpoints fell into the middle ground category and for the Cuvango-Jamba overhead line most of the viewpoints fell into the foreground category.

The final viewing distance and visibility rating were **distant middle ground-to-middle ground (2.5)** for the Gove-Chipindo-Cuvango overhead line and **middle ground (3)** for the Cuvango-Jamba overhead line.

For the substations calculating the viewing distance and visibility rating was done based on the buildings identified in the Open Buildings. The majority of all buildings fell into the **middle ground (3)** for all substations.

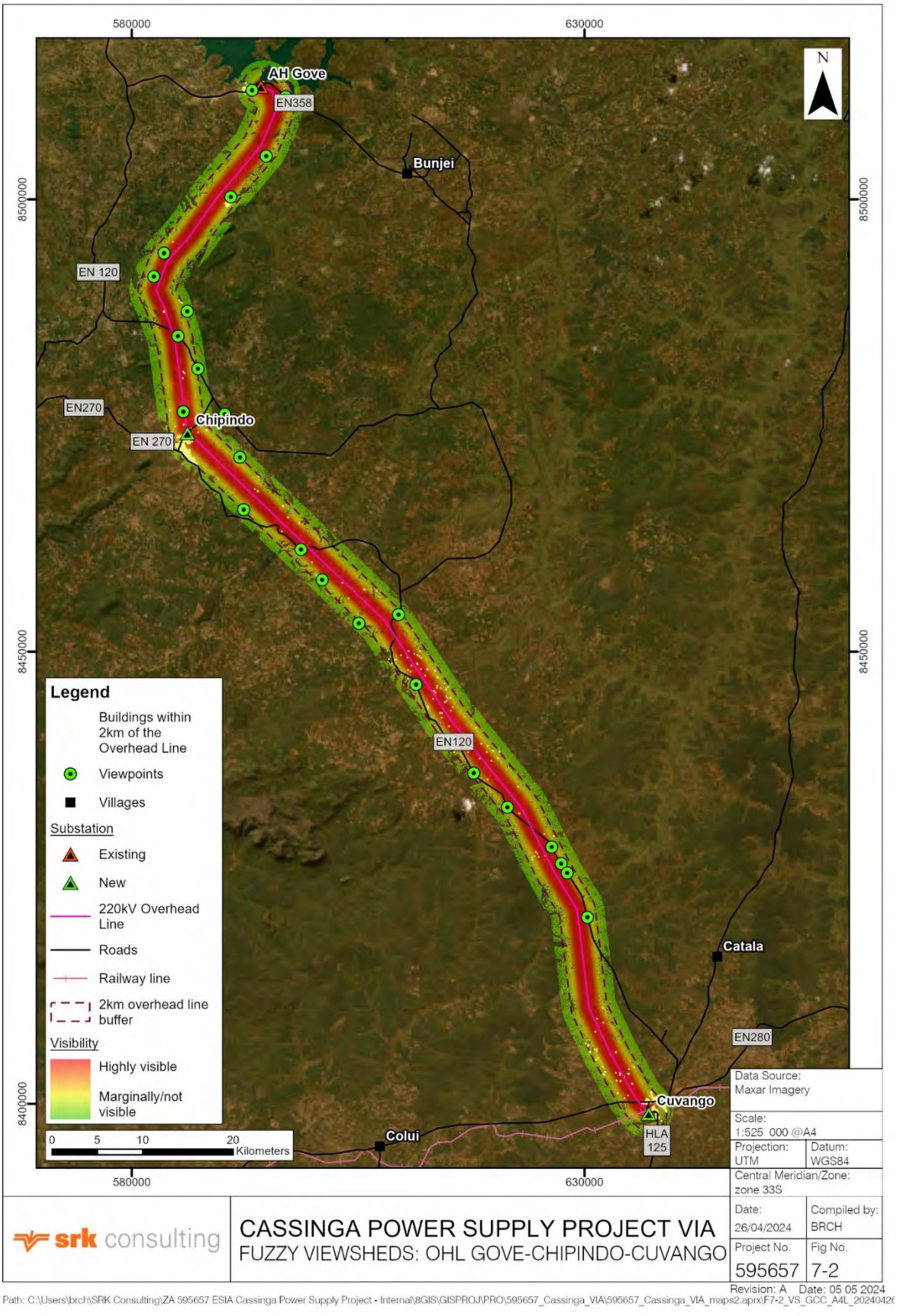


Figure 2: Fuzzy viewsheds: OHL Gove-Chipindo-Cuvango

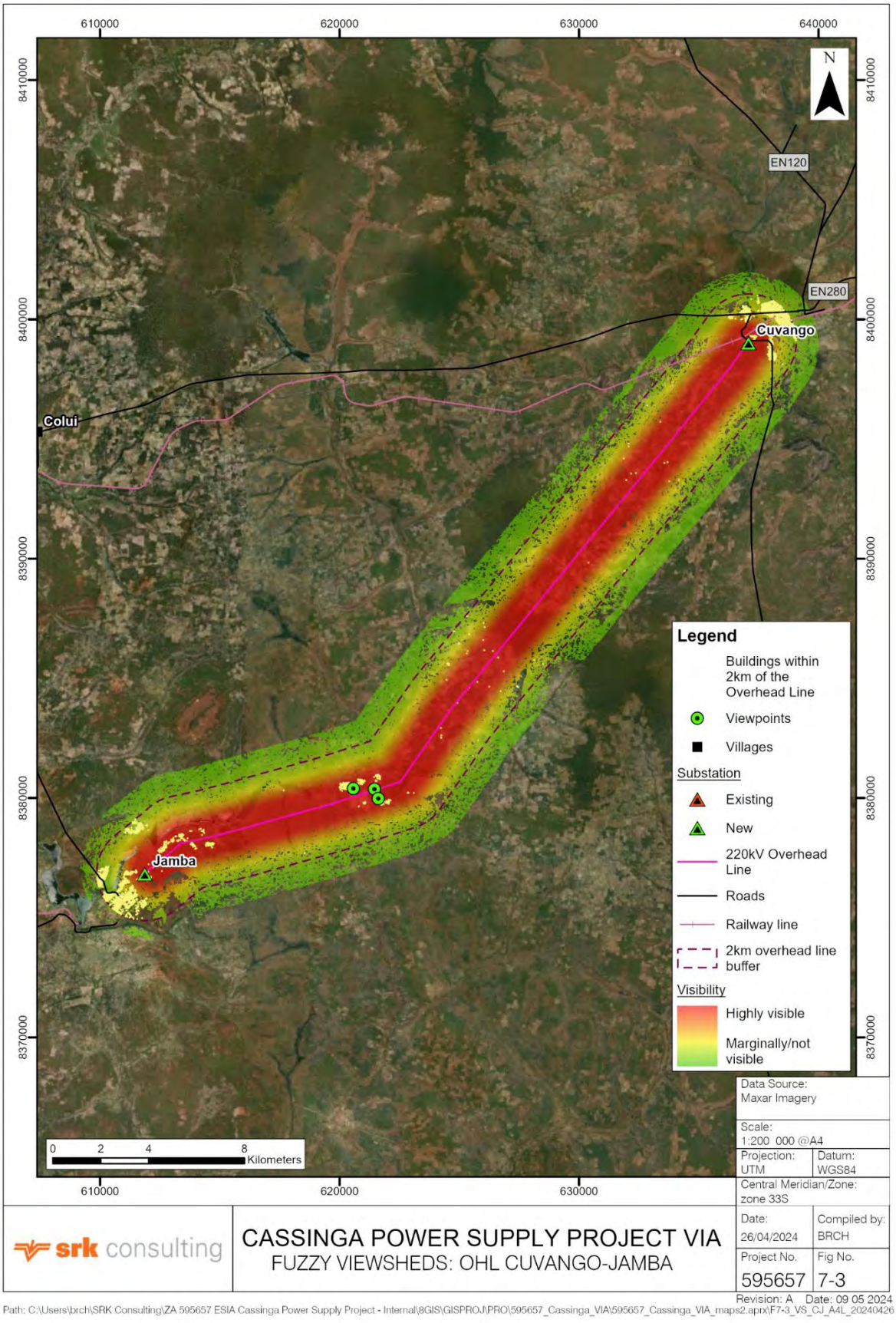


Figure 3: Fuzzy viewsheds: OHL Cuvangi-Jamba

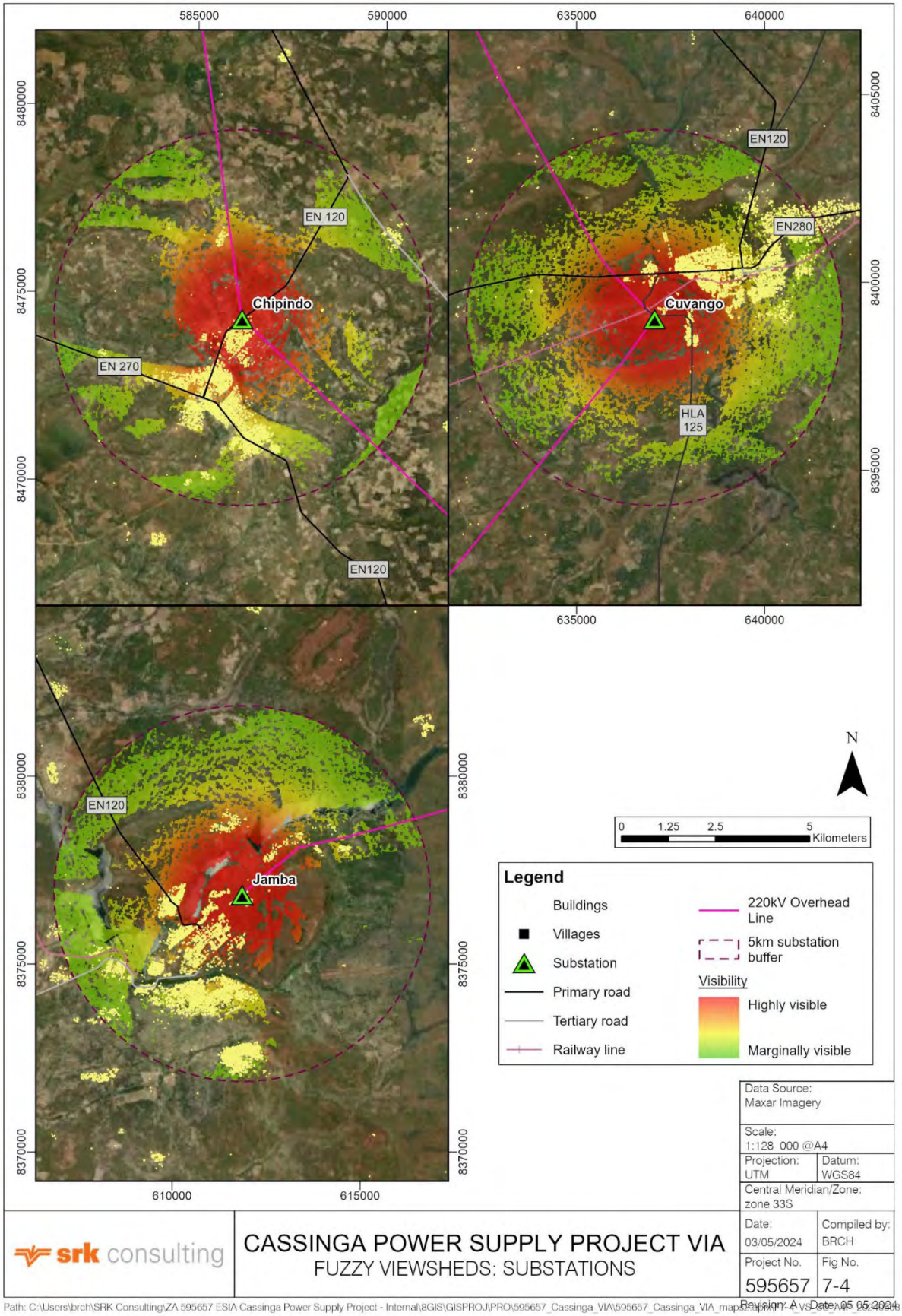


Figure 4: Fuzzy viewsheds: Substations

Visual Absorption Capacity

The Visual Absorption Capacity (VAC) is the potential for the area to conceal / mitigate the impact of the Cassinga Power Supply Project through natural or man-made features in the landscape. Factors contributing to the VAC include:

- Topography and vegetation that can provide screening and increase the visual absorption capacity of a landscape.
- The degree of urbanisation compared to open space. A highly urbanised landscape is better able to absorb the visual impacts of similar developments.
- An interrelated landscape comprising a unified environment.
- The scale and density of surrounding developments.

Visual absorption within the wider area of influence will further be provided by:

- Residential suburbs or villages which may reduce the visibility of the site to people residing in the centre or towards the back of the residential area.
- The existing road infrastructure between viewpoints further than 2 km away.
- Powerlines, railway lines etc.

The VAC is rated from high (1) to low (5) based on the capacity of the environment to absorb the visual impact. The VAC will be high when the environment can impede the infrastructure and as such, the colour of a structure can also determine its VAC. The VAC will be low in areas where the topography is flat and natural features such as trees, outcrops and mountains are absent.

The topography of the area can be described as hilly. Besides for the four towns (Gove, Chipindo, Cuvango and Jamba), communities and scattered farming households, roads and railway lines there is little other infrastructure in the study area. Large portions of the study area are vegetated however 50m tall transmission towers will likely rise above most of the vegetation. The VAC for the surrounding area of the high voltage overhead lines and transmission towers are predicted to be **medium (3)**.

In the areas where new substations are proposed, a higher concentration of infrastructure and disturbed land occurs. However, the majority of the infrastructure comprises small-scale, single-storey buildings and natural and modified vegetated land still dominates these areas. The VAC for the area surrounding the substations is predicted to be **medium-to-high (2)**.

The distribution network will be positioned along existing roads within the town area. By nature, the distribution network is made up of infrastructure that due to its small surface area is easily absorbed into the background in most landscapes. However little/no similar infrastructure currently exists throughout the towns.

Landscape/Townscape Compatibility

Landscape or townscape compatibility refers to the compatibility of the proposed infrastructure with the existing landscape or townscape.

The landscape / townscape compatibility of the Cassinga Power Supply Project was rated based on the following criteria specified in Table 4.

Table 4: Landscape / townscape compatibility rating criteria

High (1)	Moderate (3)	Low (5)
The project:	The project:	The project:

• Is consistent with the existing land use of the area; • Is highly sensitive to the natural environment; • Is consistent with the urban texture and layout; • The buildings and structures are congruent / sensitive to the existing architecture / buildings; and • The scale and size of the development is similar to what exists.	• Is moderately consistent with the existing land use of the area; • Is moderately sensitive to the natural environment; • Is moderately consistent with the urban texture and layout; • The buildings and structures are moderately congruent / sensitive to the existing architecture / buildings; and • The scale and size of the development is moderately similar to what exists.	• Is not consistent with the existing land use of the area; • Is not sensitive to the natural environment; • Is very different to the urban texture and layout; • The buildings and structures are not congruent / sensitive to the existing architecture / buildings; and • The scale and size of the development is different to what exists.

Besides for the existing hydroelectric power plant and substation in Gove, very little electricity infrastructure is evident in the rest of the study area. For the high voltage overhead powerlines and transmission towers the Landscape/townscape compatibility is predicted to be **low (5)**.

Currently no substations exist within the areas identified for the three new substations. For the Chipndo and Cuvango substations the landscape/townscape compatibility rating is predicted to be **low-to-moderate (4)**. However, there is a train station and railway line near the location identified for the Jamba substation and the site was previously a thermal power plant. Some of the infrastructure still remains. The landscape/townscape compatibility rating for Jamba substation is **moderate-to-high (2)**.

Little or no similar infrastructure to the distribution network currently exist, however all infrastructure is within town areas and along existing roads.

Sensitivity of viewers

The sensitivity of viewers is determined by the number of viewers and by how likely they are to be impacted upon. Sensitivity is also dependent on the viewer's perception of the area and their ability to adapt to changes in the environment. This can also include how frequently they are exposed to the view i.e. static views from houses would have a higher sensitivity than transient views experienced by motorists.

Residents living near the infrastructure of the Cassinga Power Supply Project are considered to be more sensitive towards the project compared to those travelling through the study area. Based on the analysis the most sensitive viewers are considered to include:

- The residents in the Gove, Chipindo, Cuvango and Jamba towns;
- Communities and household residents located within 600m of the overhead lines and/or 1km of the new substations; and
- Motorists travelling along the main roads and railway users. However, these motorists and railway users are expected to only have transient views of the project infrastructure.

The viewer sensitivity is ranked from high (5) to low (1) based on the probable perceptions of the viewers and their willingness to change.

The viewer sensitivity is predicted to be **low-to-medium (2)**. In Gove the substation already exists and is associated with the operational hydroelectric power plant. Residents are unlikely to be sensitive to additional lines leaving the existing the plant. In Chipindo, Cuvango and Jamba, many residents don't have access to electricity and the project will address their requirements. Residents who are likely to be most sensitive to the project are those in communities in close proximity to the project but are not benefitting directly from it. Motorists and railway users are not considered as sensitive as static viewers (residents). It must be noted that the main mode of transport is motorbikes. Motor bikers will have a greater scope of view than those in closed vehicles.

The assumed view catchment of the distribution network is limited to town residents who will benefit from streetlights and/or electricity supply to their homes, therefore the sensitivity of the viewers towards the infrastructure is suspected to be low. According to the stakeholders the general perception is that this will benefit the town.

Calculation of the Magnitude of the Visual Impacts

The **magnitude** of the visual impact, which is a subjective measure, is calculated based on an average between all criteria listed in Table 5, are described in Sections 5.3 and 7.1.1 - 7.1.5 of the VIA.

Table 5: Summary of the magnitude of the Visual Impact of the Cassinga Power Supply Project

Criteria	OHL: Gove-Chipindo-Cuvango	OHL: Cuvango-Jamba
Visual Character	4	4
Visual Quality of the Environment	2.67	3.66
Visual Exposure	2.29	2.96
Visibility and Distance	2.5	3
Visual Absorption Capacity	3	3
Landscape Compatibility	5	5
Viewer Sensitivity	2	2
Magnitude	**3.07**	**3.37**

Criteria	Substation: Chipindo	Substation: Cuvango	Substation: Jamba
Visual Character	4	4	4
Visual Quality of the Environment	2.33	3.00	3.33
Visual Exposure	2.33	3.00	2.66
Visibility and Distance	3	3	3
Visual Absorption Capacity	2	2	2
Landscape Compatibility	4	4	2
Viewer Sensitivity	2	2	2
Magnitude	**2.24**	**2.42**	**2.14**

The magnitude is ranked from Major (5) to Minor (1), and is included in Section 7.2.2 as the Severity rating to inform the overall assessment of the visual impact, by means of using the prescribed impact ranking system.

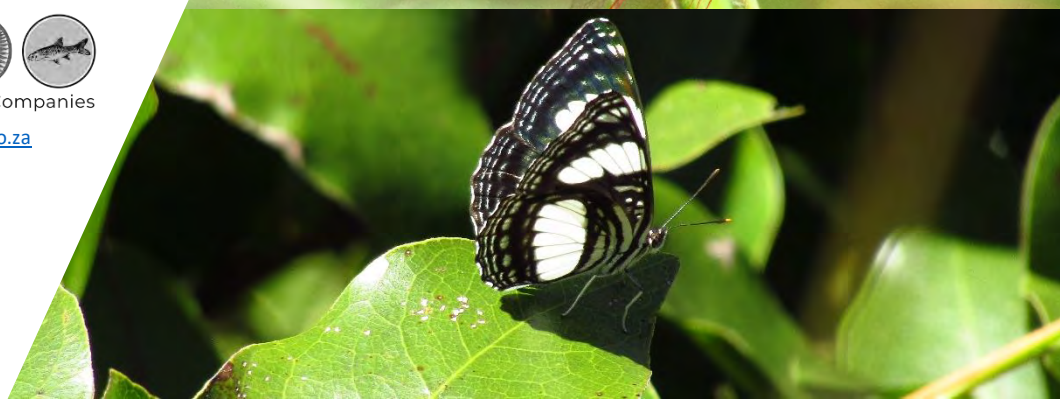
Appendix L: Biodiversity Management Plan (BMP) and Avifauna Monitoring Programme

Appendix L1: Biodiversity Management Plan

SCIENTIFIC AQUATIC SERVICES

BIODIVERSITY MANAGEMENT PLAN FOR THE PROPOSED CASSINGA ELECTRICAL POWER SUPPLY FROM GOVE DAM TO

Prepared for:	SRK Consulting (SA) (Pty) Ltd.
Report author:	H. de Beer
Report reviewers:	S. van Staden (Pr.Sci.Nat)
Report Reference:	SAS 24-1055
Date:	September 2024



Part of the SAS Environmental Group of Companies

Website: http://www.sasenvironmental.co.za

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **ii**
LIST OF FIGURES ..... **iii**
LIST OF TABLES ..... **iii**
GLOSSARY OF TERMS & ACRONYMS ..... **iv**
1 INTRODUCTION **1**
1.1 Background 4
1.2 What is Biodiversity and Why is it Important? 4
1.3 Legislative Requirements 5
1.4 Biodiversity Management Plan Process Flowchart 5
1.5 TERMS OF REFERENCE 7
1.6 ASSUMPTIONS AND LIMITATIONS 7
2 RESULTS OF THE DESKTOP ANALYSIS **8**
2.1 World Database on Protected Areas 8
2.2 Terrestrial Ecoregions (WWF, 2001b) 8
2.3 Biomes (WWF, 2001a) 16
2.4 Vegetation Types 17
3 SITE SPECIFIC ASSESSMENTS AND FIELDWORK **18**
3.1 MU 1 – Miombo Woodland 35
3.2 MU 2 – Secondary Miombo Woodland 36
3.3 MU 3 – Freshwater Habitat 37
3.4 MU 4 – Transformed Habitat 38
4 BIODIVERSITY MANAGEMENT PLAN **39**
5 CONCLUSIONS AND RECOMMENDATIONS **45**
6 REFERENCES **46**
APPENDIX A: LEGAL ARTICLES OF RELEVANCE **48**
APPENDIX B: FLORAL, FAUNAL FRESHWATER MONITORING PLAN **54**

LIST OF FIGURES

Figure 1: Digital satellite image depicting the location of the study and investigation areas associated with the proposed Cassinga powerline project in relation to the surrounding environment. 2
Figure 2: The study and investigation areas associated with the proposed Cassinga powerline project depicted on a topographical map in relation to the surrounding area....3
Figure 3: The process flowchart with regards to the BMP. 6
Figure 4: Conceptual illustration of the management units within the study area (Map 1 of 16). 19
Figure 5: Conceptual illustration of the management units within the study area (Map 2 of 16). 20
Figure 6: Conceptual illustration of the management units within the study area (Map 3 of 16). 21
Figure 7: Conceptual illustration of the management units within the study area (Map 4 of 16). 22
Figure 8: Conceptual illustration of the management units within the study area (Map 5 of 16). 23
Figure 9: Conceptual illustration of the management units within the study area (Map 6 of 16). 24
Figure 10: Conceptual illustration of the management units within the study area (Map 7 of 16). 25
Figure 11: Conceptual illustration of the management units within the study area (Map 8 of 16). 26
Figure 12: Conceptual illustration of the management units within the study area (Map 9 of 16). 27
Figure 13: Conceptual illustration of the management units within the study area (Map 10 of 16). 28
Figure 14: Conceptual illustration of the management units within the study area (Map 11 of 16). 29
Figure 15: Conceptual illustration of the management units within the study area (Map 12 of 16). 30
Figure 16: Conceptual illustration of the management units within the study area (Map 13 of 16). 31
Figure 17: Conceptual illustration of the management units within the study area (Map 14 of 16). 32
Figure 18: Conceptual illustration of the management units within the study area (Map 15 of 16). 33
Figure 19: Conceptual illustration of the management units within the study area (Map 16 of 16). 34

LIST OF TABLES

Table 1: Management units associated with the proposed Cassinga powerline project. 18
Table 2: Biodiversity Management Plan for critical activities pertaining to the proposed Cassinga powerline project. 41
Table 3: Biodiversity Management Plan for important activities pertaining to the proposed Cassinga powerline project. 43
Table 4: Biodiversity Management Plan for low priority activities pertaining to the proposed Cassinga powerline project. 44

GLOSSARY OF TERMS & ACRONYMS

Alien vegetation	Plants that do not occur naturally within the area but have been introduced either intentionally or unintentionally
BMP	Biodiversity Management Plan
BFDs	Bird Flight Diverters
BMP	Biodiversity Management Plan
BV	Biodiversity Value
CHA	Critical Habitat Assessment
CS	Conservation Status
Endangered	Organisms in danger of extinction if causal factors continue to operate
Exotic vegetation	Plant species that originate from outside of the borders of the biome usually international in origin
FS	Functional Status
GPS	Global Positioning System
HUV	Human Use Value
ISMP	Invasive Species Management Plan
IUCN	International Union for Conservation of Nature
m	Meter
mm	Millimetres
MU	Management Unit
PES	Present Ecological Status
RDL	Red Data Listed
SAS	Scientific Aquatic Services
STS	Scientific Terrestrial Services

1 INTRODUCTION

Scientific Aquatic Services (Pty) Ltd (SAS) was thus appointed to compile a Biodiversity Management Plan (BMP) for the Cassinga Electrical Power Supply (220 kV overhead powerline) Project, this is referred to throughout the report as the study area. The proposed Cassinga powerline project is located South of the centre of Angola, in the provinces of Huila and Huambo. The proposed Cassinga powerline, proposed roads, and construction area / laydown areas extends for approximately 170 km, crossing six municipalities which include Jamba, Kuvango, Dongo, Galangue, Chipindo and Kalima (Figure 1 and 2 below).

The main objectives for this BMP are to utilise the existing biodiversity baseline and monitoring data to identify biodiversity management actions, potential further monitoring surveys, evaluation programmes and aspects that need to be prioritised to enhance biodiversity conservation.

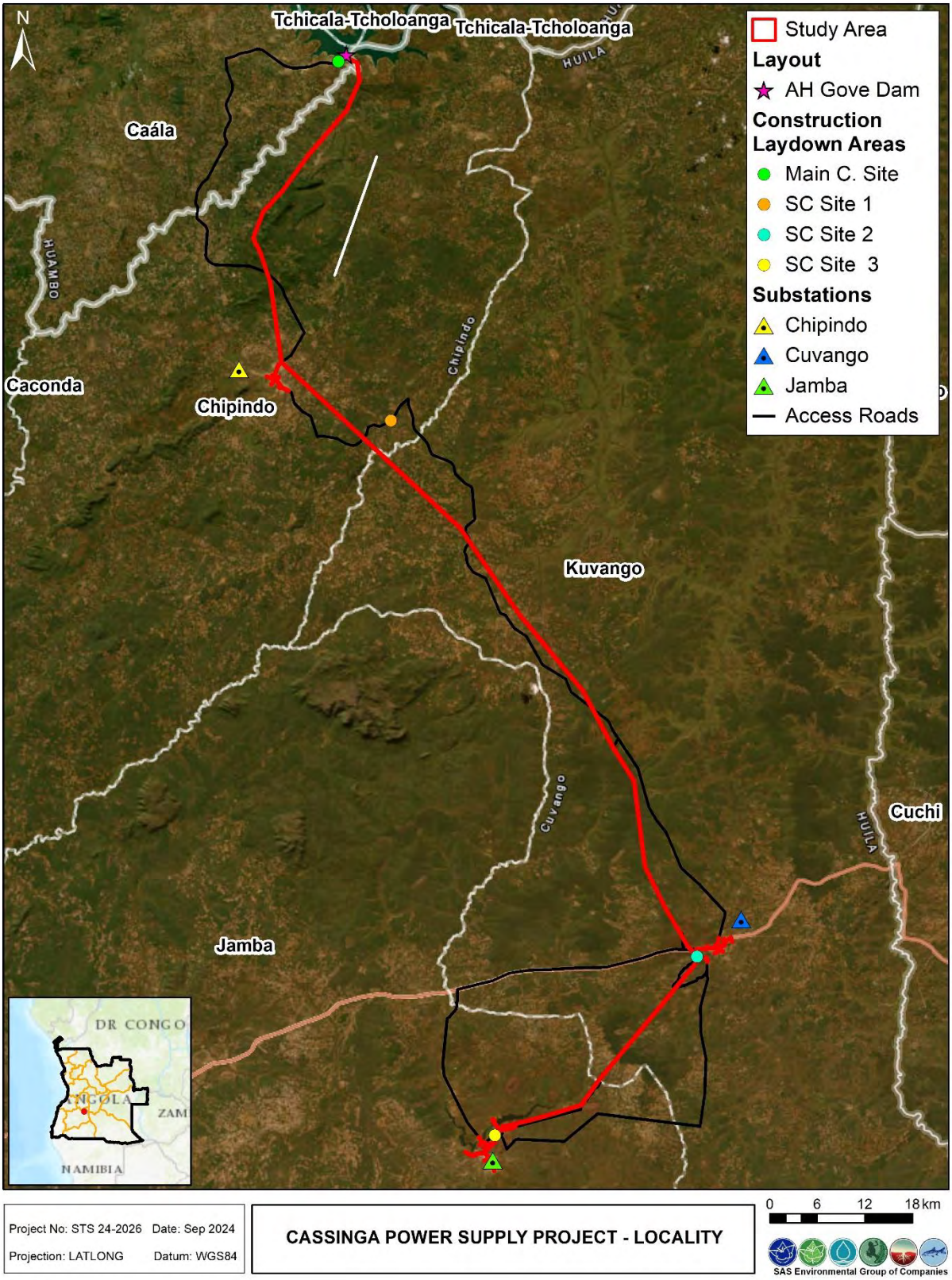


Figure 1: Digital satellite image depicting the location of the study and investigation areas associated with the proposed Cassinga powerline project in relation to the surrounding environment.

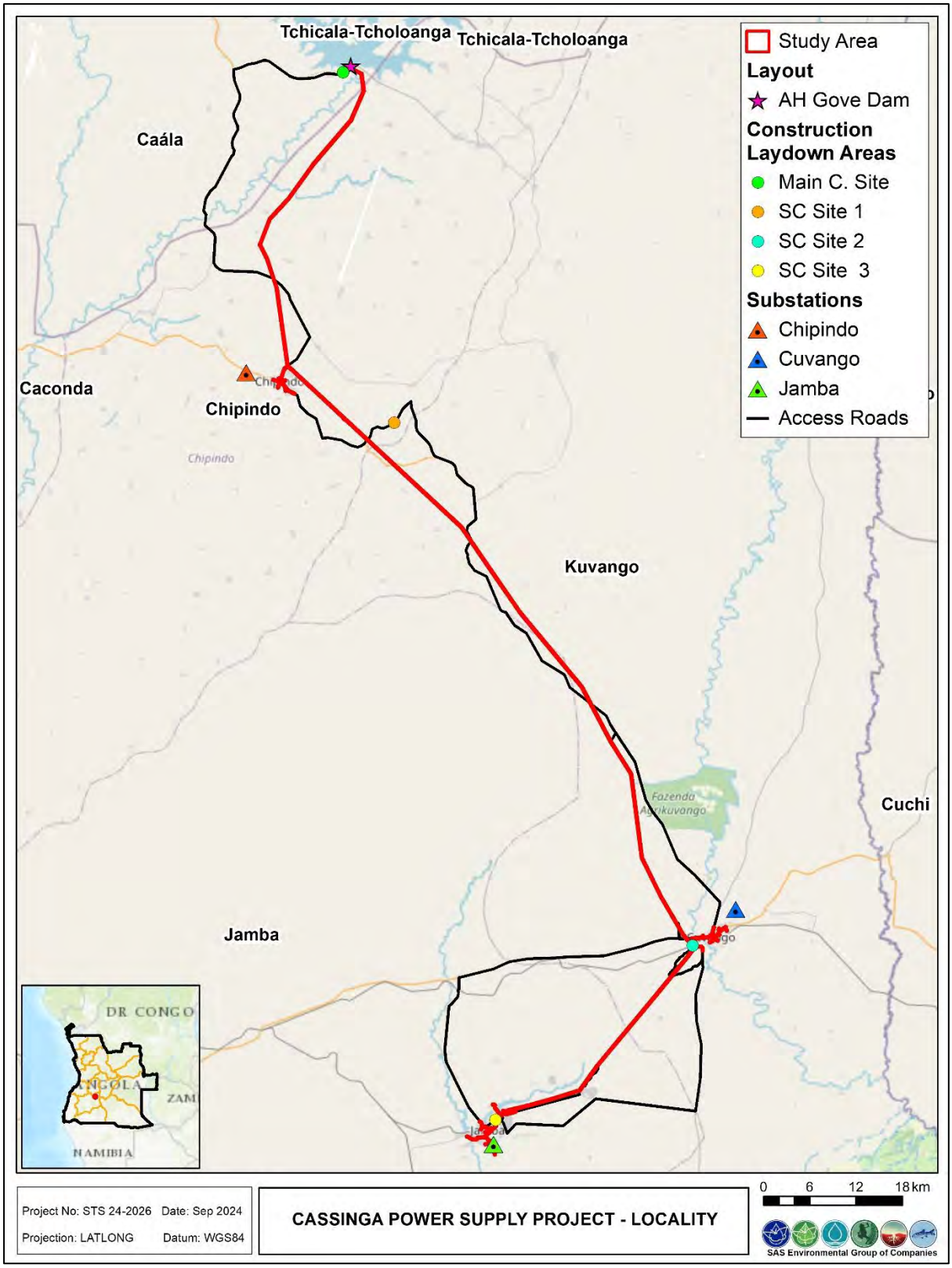


Figure 2: The study and investigation areas associated with the proposed Cassinga powerline project depicted on a topographical map in relation to the surrounding area

1.1 Background

Measures towards the protection of biodiversity should be directed towards the most vulnerable biological groups and habitats identified for the Project. Based on the biodiversity Critical Habitat Assessment (CHA) that was conducted, the implementation of both a Biodiversity Management Plan (BMP) and Biodiversity Action Plans (BAP) is required according to IFC-PS6.

According to the CHA and community surveys conducted during the fieldwork visits (April (wet season) and July (dry season) 2024), priority should be given to the three natural habitats identified: Miombo Woodlands, Secondary Miombo Woodland and Freshwater Habitat, and due to their importance for migratory birds, provision of ecosystem services, including the supply of charcoal, wood and fruit trees, and access to water sources.

Following the implementation of these plans, which should contemplate mitigation and rehabilitation measures for biodiversity, their efficacy should be monitored and evaluated periodically, to determine the need of adjustment or further measures.

The BMP will focus on avifaunal communities (due to the risk of collision with the transmission lines) and plant communities (due to the presence of the Alien and Invasive Plants), in line with the proposed mitigation measures:

- Avoid crossing Miombo Woodland areas with native tree species, including *Pterocarpus angolensis* and *Brachystegia spiciformis*;
- Minimise impacts on avifaunal communities, by installing Bird Flight Diverters (BFDs) and monitoring bird collision through a Fauna Monitoring Program;
- Rehabilitate/restore Freshwater Ecosystems by
    - Removing invasive plant species, through an Invasive Species Management Plan;
    - Ensuring appropriate hydraulic connectivity and functionality as well as ensuring that erosion and sedimentation is minimised and appropriately monitored and managed.

1.2 What is Biodiversity and Why is it Important?

Biodiversity is defined as the variability among living organisms from all sources including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species and of ecosystems. It is the variety within and between all species of plants, animals and microorganisms and the ecosystems within which they live and interact. The loss of biodiversity puts all aspects of life

at risk. Biodiversity is the foundation of ecosystem services to which human well-being is intimately linked and therefore loss of biodiversity is one of the most significant global challenges, and thus protection of these resources is considered crucial. No feature of our Earth is more complex, dynamic, or varied than the layers of living organisms that occupy its surface, air and seas, and no feature is experiencing more dramatic change at the hands of humans than this extraordinary, singularly unique feature of Earth. Biodiversity is important to human sustainability based on four (4) key aspects namely: environmental, ethical, emotional and economic.

Biodiversity is at the core of sustainable development. It impacts the quality of human life and is an essential component to the sustainability of all human activity, including business. A growing awareness of the implications of biodiversity loss on progress towards sustainable development led to the establishment of the Convention on Biological Diversity (CBD) at the 1992 UNEP Earth Summit.

1.3 Legislative Requirements

In June 1992, the Earth Summit took place in Rio de Janeiro, where 159 governments signed the Convention on Biological Diversity. It entered in force on 29 December 1993 and called for the creation and enforcement of national strategies and plans to conserve, protect, and enhance biological diversity. Businesses globally have responded to the biodiversity challenge by trying to understand and manage their impacts on biodiversity. Businesses are expected to not only manage their impacts on biodiversity but to take responsibility for managing biodiversity within their properties. A critical part of impact management is the development of BMPs for projects undertaken by an organisation.

Appendix A, a brief description of all relevant international agreements, regional agreements, national legislation, polices and guidelines and local legislation for the conservation and sustainable use of Angola's biodiversity that form the legal backbone for this BMP.

1.4 Biodiversity Management Plan Process Flowchart

The BMP process flowchart (Figure 3) is summarised below and serves to illustrate the overall process of the BMP. The flowchart indicates how the previous data/monitoring, as well as ongoing data/monitoring should be incorporated so as to inform any changes to the BMP, ensuring the continued commitment of the mine to environmental sustainability and social responsibility.

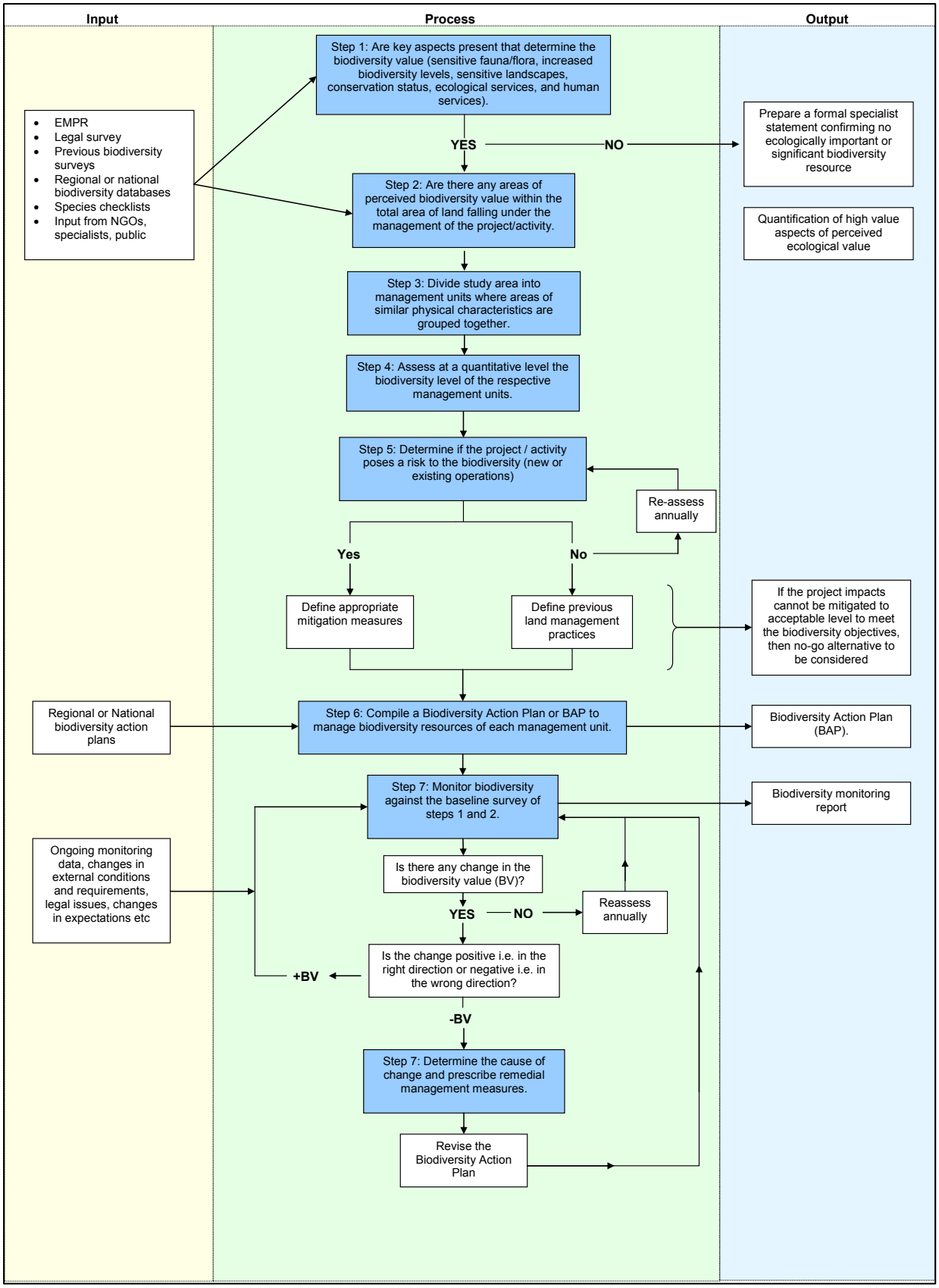


Figure 3: The process flowchart with regards to the BMP.

1.5 TERMS OF REFERENCE

The BMP covers the proposed Cassinga powerline project and all associated infrastructure. The following terms of reference are applicable and were included in the BMP:

- Desktop review of existing documentation regarding biodiversity of the study site from previous assessments. All baseline information available for the area, including the monitoring programs listed in the faunal report (STS 24-2026), floral report (STS 24-2026) and freshwater ecosystem assessment report (SAS 24-1055);
- Field assessments were undertaken from the 6th to the 10th of April 2024 (summer / wet season) and from the 15th to the 18th of July 2024 (winter / dry season) for the consultants to obtain an understanding of the site, focussing on specific management areas and to observe the various habitat types present in the study area;
- Based on the findings a set of biodiversity objectives was developed to protect and manage the biodiversity of the study area;
- Based on the set objectives, a site-specific risk assessment was undertaken where risks in terms of the defined objectives were identified and classified according to a risk assessment system. Once the risks were identified, mitigatory measures to minimise or prevent the risks were developed; and
- Based on the risks, impacts and identified mitigatory solutions, a BMP was developed. The plan summarises the findings of the entire study highlighting the biological characteristics of the area, risks, objectives and mitigation. The plan also defines the method of monitoring of compliance of the plan and actual biodiversity integrity.

1.6 ASSUMPTIONS AND LIMITATIONS

The following assumptions and limitations apply to this BMP:

- For the purpose of this BMP, the study is confined to the proposed Cassinga powerline project study area as indicated above. The limitations defined in the Biodiversity and critical habitat as well as freshwater ecological assessment specialist studies, where applicable, are applicable to the development of this BMP;
- Although this BMP is a standalone document, it should be read and actioned in conjunction with the Faunal Assessment (STS24-2026), Floral Assessment (STS24-2026) and Freshwater Ecosystem Assessment (SAS 24-1055) in order to ascertain the desired results in an ecologically sound and fit manner;
- With ecology, aquatic and terrestrial ecosystems being dynamic and complex, certain aspects (some of which may be important) may have been overlooked. However, it is considered that the study area has been adequately assessed through the field

investigations and the review of baseline specialist studies and that the information supplied is sufficient to inform the BMP for the proposed Cassinga powerline project; and

- The BMP is an overarching document providing a set of objectives, context for further plans and summarizes the required actions to be taken in advancing towards the goal of managing biodiversity within the study area.

2 RESULTS OF THE DESKTOP ANALYSIS

The following section contains data accessed as part of the desktop assessment. It is important to note that although all data sources used provide useful and often verifiable high quality data, the various databases do not always provide an entirely accurate indication of the site specific biodiversity characteristics.

2.1 World Database on Protected Areas

According to the World Database on Protected Areas (UNEP-WCMC, 2016), the study area is not associated within any protected areas.

2.2 Terrestrial Ecoregions (WWF, 2001b)

According to the World Wildlife Fund (WWF, 2001b), the study area occurs within the Angolan Miombo Woodlands (AT0701) terrestrial ecoregion. The sections below briefly describe the characteristics of the terrestrial ecoregion. It must be noted that these ecoregions were delineated using desk based methods level and are of low resolution and therefore often not accurate to a site-specific level.

Angolan Miombo Woodlands

Covering all of central Angola and extending into the Democratic Republic of Congo, the extensive Angolan Miombo Woodlands are part of an even larger miombo ecosystem that covers much of eastern and southern Africa. The miombo is characterized by several unique ecological factors, including its propensity to burn, the importance of termites, and the unusual browsing conditions found here. While only poor-quality browsing is available, this ecoregion hosts a rich assortment of large mammals, some bulk feeders like the African elephant (*Loxodonta africana*), some specialized feeders such as the sable antelope (*Hippotragus niger*), and some, such as the tsessebe (*Damaliscus lunatus*), that utilize the wetlands scattered throughout this ecoregion. However, large mammal populations and all conservation activities have been severely affected by the decades-long civil war in Angola since 1974.

Location and General Description

This ecoregion comprises moist, deciduous broadleaf savannas and woodlands interspersed with areas of edaphic and secondary grassland. It forms the westernmost part of the large miombo woodland belt that is the dominant type of savanna woodland in the Zambezian Center of Endemism (White 1983). To the north and northeast lie the Southern and Western Congolian Forest-Savanna Mosaic vegetation, while the drier Zambezian Baikiaea Woodland is found on Kalahari sands to the south. The high peaks of the western highlands and the escarpment form the western boundary of the ecoregion where the miombo gives way to the Angolan Scarp Savanna and Woodlands and, at the highest elevations, to the Angolan Montane Forest-Grassland Mosaic. To the east lie the floristically distinct Central Zambezian Miombo Woodlands and the Zambezian Cryptosepalum Dry Forests and the Western Zambezian Grasslands.

Most of the Angolan Miombo Woodland is found at elevations between 1,000 and 1,500 m above sea level. The ecoregion lies mainly in the Cubango-Zambezi Basin, which is an extensive area of gently undulating hills drained by rivers that flow eastwards into the Zambezi River. It is also drained by the endorheic Cuando-Cubango system and the Cunene River. The northern portion of the ecoregion is part of the Congo Basin, while in the west, it extends onto the Old Plateau which includes the highlands of Huíla, Huambo, and Bié (Huntley 1974). The geology of the area comprises a mixture of gritty sandstones of the Karoo sediments, deep aeolian sands of the Pleistocene Kalahari system and gneisses, gneissic granites and metamorphosed sediments of the Precambrian basement complex (Huntley 1974). The combination of the crystalline nature of many of the rocks, low relief, moist climate, and warm temperatures has produced highly weathered soils that are commonly more than 3 m deep (Frost 1996). The soils are typically well-drained, highly leached, and nutrient-poor and tend to be acid with low organic matter. In some areas, drainage is restricted by shallow depth, low relief, clay subsoils or indurated laterite, and this may result in seasonal waterlogging.

The area experiences a tropical climate with rainfall strongly concentrated in the summer months. Rainfall increases, and temperatures decrease, with decreasing latitude and increasing elevation. Mean annual rainfall in the ecoregion ranges from less than 800 mm in the south to about 1,400 mm in the north and west (Huntley 1974). Mean maximum temperatures are around 30° C in the south, falling to about 27° C over most of the area, and declining to about 24° C at the higher elevations. Minimum temperatures range from 15° to 18° C in the low-lying areas to 9° C over much of the higher elevation areas in the western and central parts of the ecoregion.

The vegetation comprises extensive woodlands with a canopy height from 5 to 10 m, little or no shrub layer and grassy ground cover. These are interspersed with grassy plains and drainage lines, as well as patches of denser forest. The physiognomy and floristic composition vary considerably across the ecoregion (Huntley 1974).

Miombo woodland is distinguished from other African savanna, woodland and forest formations by the dominance of tree species in the family Fabaceae, subfamily Caesalpinioideae, particularly in the genera *Brachystegia, Julbernardia*, and *Isoberlinia* sp. which are seldom found outside miombo (Campbell et al. 1996). The more widespread large tree species in the Angolan miombo ecoregion are *Brachystegia spiciformis*, *Julbernardia paniculata*, and *Copaifera baumiana*, while *Brachystegia floribunda*, *B. boehmii*, *B. gossweilerii*, *B. wangermeeana*, *B. longifolia*, *B. bakerana*, *Guibourtea coleosperma*, and *Isoberlinia angolensis* are locally dominant (Werger and Coetzee 1978, Huntley 1994, Dean 2000). The grass layer is up to 2 m tall and several species of *Loudetia*, *Hyparrhenia*, *Tristachya*, and *Monocymbium ceresiiforme* predominate. Most of the miombo tree and shrub species shed their leaves in the late dry season, and the miombo vegetation is bare for a short time, usually less than three months. A few weeks to a month before the onset of the rains, the trees flush again and color the countryside with their predominantly bright reddish new foliage. Brilliant green young foliage is also found in some species (Werger and Coetzee 1978). Most of the miombo trees and shrubs also flower in the same period immediately before the rains.

On seasonally waterlogged soils along drainage lines, especially on Kalahari sands, the woodland gives way to grasslands dominated by *Loudetia*, *Andropogon*, *Trachypogon*, and *Tristachya* species (Huntley 1974). Open woodlands with scattered *Uapaca*, *Piliostigma*, Annona, *Entadopsis*, and *Erythrine* species often develop on the ecotone between the woodland edge and drainage lines (Dean 2000). In some parts in the center and the northeast of the ecoregion, extensive gallery forests occur along rivers flowing into the Congo River Basin. These represent part of a transition with the Guineo-Congolian Center of Endemism to the north (White 1983, Huntley 1994). Several extensive grassy plains covered with the shrub *Landolphia parviflora* are found in the Congo River Basin, and a very large seasonally inundated grassy plain dominated by *Loudetia simplex* is found to the south of the Congo-Zambezi divide. Small areas of *Marquesia acuminata*, *Guibourtia coleosperma*, and *Cryptosepalum exfoliatum* evergreen dry woodland are scattered throughout the northeast of the ecoregion. Transitions to *Colophospermum mopane* and *Baikiaea plurijuga* communities occur in the drier southern parts of the ecoregion.

Fire is an important ecological factor in miombo woodland. The strong seasonality in precipitation leaves the vegetation dry for several months of the year, and thunderstorms at the start of the rainy season can easily set the vegetation alight (Werger and Coetzee 1978). In addition to being naturally fire-prone, the vegetation has been regularly set alight by humans for agriculture, hunting, and to improve pastures. Humans have probably burned the vegetation for millennia (Frost 1996). Late dry season fires are particularly destructive to trees, as their great intensity coincides with trees breaking their dormancy. Where they occur regularly, they result in more open savanna with scattered fire-tolerant trees.

Human populations in miombo woodland areas are generally low, due to the nutrient-poor soils that limit agricultural potential, as well as the widespread presence of tsetse fly (*Glossina* spp.). Tsetse flies are vectors of trypanosomiasis that affects humans as well as domestic livestock. In most of Angola, human population density is less than five people per km^2 (Huntley and Matos 1994) although the human population is not evenly distributed throughout the ecoregion. Population density increases in the higher elevation areas in the southwest, but population densities are lowest in the southeast, and large areas are nearly uninhabited.

Biodiversity Features

Overall species richness of the ecoregion's flora is high, though the diversity of canopy tree species is relatively low. Miombo is notable among dry tropical woodlands for the dominance of tree species with ectomycorrhizal rather than vesicular-arbuscular mycorrhizal associations (Frost 1996). These may enable them to exploit porous, infertile soils more efficiently than groups lacking ectomycorrhizae. Many of the fungal species involved in these associations produce mushrooms, some of which are edible. This has resulted in a culture of mushroom-gathering among indigenous people that is widespread in miombo, but largely absent in other tropical African woodlands.

Faunal richness is moderate, with avifaunal species being better represented than other vertebrate taxa. The ecoregion is part of the large miombo woodland belt, the most extensive tropical seasonal woodland and dry forest formation in Africa, covering an estimated 2.7 million km^2 (Campbell et al. 1996). Many of the plant and animal species found in the ecoregion are widespread throughout the savanna and woodland areas in southern Africa. While there are many species specialized and endemic to miombo vegetation, relatively few are confined to this ecoregion. Because little biological research has been carried out in Angola over the last 25 years due to the ongoing civil war, species richness estimates are likely to be an under-

representation. Some of the species reported as endemic are poorly studied and collected, and their ranges may, in fact, be larger than is currently known.

More than 170 mammal species are known to occur in the ecoregion, including five endemic small mammal species, one of which, Vernay's climbing mouse (*Dendromus vernayi*) (CR), is restricted to this ecoregion. The mammal fauna of miombo woodlands is poorer in both species and animal numbers than in the savanna communities of the Southwest arid biome to the south or the Guineo-Congolian forests to the north (Huntley 1974). Because miombo vegetation grows in nutrient-poor soils, it has a low nutrient content. This, together with the harsh dry season and long droughts, limits the density and biomass of large herbivores as well as biasing their composition towards larger bodied species such as Elephants (*Loxodonta africana*) and Buffaloes (*Syncerus caffer*), which can bulk feed on low-quality forage. Large-bodied antelope species such as Sable antelope (*Hippotragus niger*), Roan antelope (*H. equinus*) and Lichtenstein's hartebeest (*Signoceros lichtensteinii*) are specialized feeders able to select high-quality growing shoots of tall grass. Specialized ungulate browsers are rare because of a shortage of browse in the dry season, the low quality of leaf matter, and the high, inaccessible canopies of most trees (Frost 1996).

Within the miombo vegetation, "islands" of other vegetation types, such as eutrophic savanna on richer soils, river terraces and floodplains, provide superior forage. This raises the ungulate carrying-capacity and variety in these areas compared to extensive areas of pure miombo (Frost 1996). Giraffe (*Giraffa camelopardalis*) is rarely found in miombo woodland, but occurs in the southern parts of the ecoregion on floodplains or more eutrophic savanna vegetation which provides high-quality browse. Bushbuck (*Tragelaphus scriptus*), Blue duiker (*Cephalophus monticola*) and Yellow-backed duiker (*C. silvicultor*) prefer more densely wooded areas, while sitatunga (*Tragelaphus spekei*) and Waterbuck (*Kobus ellipsiprymnus*) are found in wetlands and marshes. Tsessebe (*Damaliscus lunatus*) prefer open, grassy, and often seasonally flooded habitat.

Other large mammals found in the ecoregion include Hippopotamus (*Hippopotamus amphibius*), Zebra (*Equus burchellii*) in the south and in the east of the ecoregion, and several large predator species such as Lion (*Panthera leo*), Leopard (*P. pardus*), Cheetah (*Acinonyx jubatus*), African wild dog (*Lycaon pictus*), Side-striped jackal (*Canis adustus*) and Spotted hyaena (*Crocuta crocuta*). Smaller carnivores include Wild cat (*Felis sylvestris*), Serval cat (*Leptailurus serval*), Caracal (*Caracal caracal*), and the Miombo genet (*Genetta angolensis*), which has a wide distribution but is endemic to the miombo woodland belt. Large insectivores such as Ground pangolin (*Smutsia temminckii*) and Aardvark (*Orycteropus afer*) feed on the

numerous ants and termites found in the miombo. Many of the large mammals are thought to be rare or even extinct in the ecoregion today, due to large-scale uncontrolled hunting and lack of wildlife management. Of special interest and concern is the Giant sable antelope (*Hippotragus niger variani*), a subspecies endemic to the ecoregion which is critically endangered due to poaching.

While the avifauna of the Angolan miombo region is relatively rich, endemism levels are low with only the Black-tailed cisticola (*Cisticola melanura*) considered near-endemic to the ecoregion. The Brachystegia-restricted avifauna in the ecoregion is similar to that of western Zambia and southern Democratic Republic of Congo (Benson and Irwin 1966a in Dean 2000). Miombo woodlands in the Zambezi River drainage basin generally share more species with western Zambia, while those of the Congo basin tend to share species with southern Democratic Republic of Congo. (Dean 2000). Typical miombo species include Miombo grey tit (*Parus griseiventris*), Miombo rock-thrush (*Monticola angolensis*), Red-capped crombec (*Sylvietta ruficapilla*) and Böhm's flycatcher (*Muscicapa boehmi*). Birds breeding in miombo woodlands generally have relatively short breeding seasons and start nesting before or during the early rains. Others, such as the Bronze-winged cursor (*Cursorius chalcopterus*), Senegal plover (*Vanellus lugubris*), Fiery-necked nightjar (*Caprimulgus pectoralis*), and Pennant-winged nightjar (*Macrodipteryx vexillaria*) rely on fires to provide breeding habitat. They nest in early spring following late winter and early spring fires (Dean 2000).

Many seasonally or permanently flooded areas are found throughout the ecoregion, and their aquatic vegetation supports a variety of water birds. These include Greater swamp-warbler (*Acrocephalus rufescens*), African yellow warbler (*Chloropeta natalensis*), Chirping cisticola (*Cisticola pipiens*), Bocage's weaver (*Ploceus temporalis*), Saddle-billed stork (*Ephippiorhynchus senegalensis*) Marabou Stork (*Leptoptilos crumeniferus*), Goliath heron (*Ardea goliath*), and Wattled crane (*Bugeranus carunculatus*).

The herpetofauna of the ecoregion is only moderately species rich, with two strict-endemic frog species, the Angola ornate frog (*Hildbrandtia ornatissima*) and the Huila Forest tree frog (*Leptopeltis anchietae*), and one other near-endemic frog, the Luita River reed frog (*Hyperolius vilenai*). Among the reptiles, there are strictly endemic species, including Bocage's horned adder (*Bitis heraldica*). According to Poynton and Broadley (1978), the upland areas of Angola such as the Bié Plateau, which form the heart of the ecoregion, do not appear to be notable centers of reptile or amphibian endemism. Most of the herpetofauna is shared with the broader miombo region.

Invertebrates (termites and caterpillars in particular) are important ecological agents in miombo woodlands and probably remove more biomass than large mammals. While termite consumption is continuous throughout the year, caterpillars feed in spectacular outbreaks that can remove considerable proportions of leaf biomass of their preferred forage species (Frost 1996). Termites are widespread and produce enormous mounds throughout the miombo region. These mounds change soil properties and produce patches rich in nutrients and organic matter within an otherwise nutrient-poor landscape. They support vegetation markedly different in structure and composition from the rest of the ecoregion. The Angolan termite mound flora has been poorly studied compared to that of many other areas, but general trends apply, such as an increased incidence of woody plants with small or sclerophyllous leaves, prickles or thorns, and animal-dispersed seeds. The fauna of termite mounds is also distinctive as the mounds provide shelter, lookout points and food such as fruit and insects. Characteristic food webs develop on active and deserted termite mounds (Malaisse 1978, Frost 1996).

Current Status

Since 1974, Angola has experienced an almost continuous, intense civil war which has affected every town and inhabitant of the country at some point or another in all but the most remote rural areas. The conflict escalated after the 1992 elections and an estimated 1,000 people a day were then dying from direct conflict or through hunger and disease, most of whom were civilians. About two million people (nearly one fifth of the total population) are displaced within the country (Huntley and Matos 1994). Large areas of the country are inaccessible due to land mines. This has had numerous consequences for the conservation status of the ecoregion’s ecosystems, fauna and flora.

Due to the low population densities and the movement of many rural people to cities where security is better, large stretches of habitat are presently unaffected by human settlement and activities. The floral biodiversity is thus relatively well preserved, compared to miombo woodland areas in other countries where human pressures have had greater impact.

A number of protected areas fall within the ecoregion, all of them in Angola. Luando National Park and the nearby Kangandala Integral Nature Reserve were both formed to protect the giant sable antelope and are the only known areas where populations of this species still exist. Proposals have been made to join these two parks, but these plans have not been implemented (Stuart et al. 1990). The vegetation in these two protected areas is typical miombo woodland and also includes several permanent streams and marshes (Huntley 1974). Kameia National Park is an enormous, seasonally inundated grassy plain drained by three

permanent rivers. Three lakes are also found in this park, providing habitat for a variety of waterbirds as well as antelope species with a preference for marshy or open, grassy habitat such as Sitatunga, Oribi (*Ourebia ourebi*), Waterbuck (*Kobus ellipsiprymnus*), Tsessebe (*Damaliscus lunatus*) and Lechwe (*Kobus leche*). The status of Mavinga and Bufalo Partial Reserves is unclear; neither Texeira (1968), Huntley (1974), Huntley and Matos (1994) or Dean (2000) list them among Angolan protected areas, and their contribution to conservation is unclear. Also, though Bufalo Partial Reserve just falls within the ecoregion, its vegetation is more typical of *Colophospermum mopane* and *Vachellia* savanna. In addition to the areas which fall entirely into the ecoregion, the Bikuar and Mupa National Parks fall into the transition zone between Baikiaea woodlands of the southwest arid biome and the miombo woodland belt (Huntley 1974). About one-third of the total area of these reserves is covered by miombo woodlands contained in Zambezian Baikiaea Woodlands. The total area officially protected amounts to roughly 34,700 km^2, or 6.3 percent of the ecoregion, and the different habitat types are well represented.

As a result of the long civil war, the protected areas have been effectively abandoned for various periods of time, as park wardens were forced to leave due to economic or security reasons. Also, conservation and protected area management under these conditions have had little or no priority, and the protected areas became open to poachers, human settlement and cultivation (Huntley and Matos 1994). The three most important protected areas in the ecoregion, Kangandala, Kameia, and Luando, all have substantial human settlements (Huntley 1974, Huntley and Matos 1994). The impact of the war on the fauna has been catastrophic throughout Angola, and Huntley and Matos (1992) concluded that few, if any, viable populations of several large mammal species have survived in the country. These species include lion, cheetah, elephant, black rhinoceros, giraffe and giant sable. Research, including surveys of the conservation status quo, is hindered by the tenuous security, including the risks posed by land mines.

Types and Severity of Threats

The ongoing civil war has led to poor security, mass displacement of people and a depressed economy. As a result, conservation is a low priority of government, non-governmental organizations and the general public.

Hunting for subsistence and for valuable body parts of some species, much of it illegal, is the most serious threat to the wildlife in Angola. Wildlife had already been decimated outside protected areas prior to independence (Huntley 1974), and the civil war, shortage of food in

many areas, and lack of security hinder measures to control poaching and manage protected areas.

Most of the ecoregion is sparsely settled at present. Thus, habitat fragmentation and modification through settlement and agriculture, woodcutting and livestock impacts are minimal in much of the Angolan miombo woodlands. Around cities and towards the southwestern highlands, however, human population pressure is more intense and Huntley (1974) described the vegetation and soils in these areas as degraded. The present extent and severity of degradation are not documented.

The breakdown in the distribution of fuel supplies has forced more and more people to cut trees for firewood and charcoal manufacture (Huntley and Matos 1994). Charcoal manufacture in miombo woodlands has resulted in large cleared areas that are slow to recover (Dean 2000). The impact of this is, again, highest around cities.

Illegal strip-mining is increasing in parts of Lunda Norte and Lunda Sul Provinces, and this is irreversibly modifying large areas of woodland and grassland by altering soil structure and drainage patterns, as well as resulting in soil erosion (Dean 2000).

2.3 Biomes (WWF, 2001a)

The study area falls within the Tropical & Subtropical Grasslands, Savannas & Shrublands Biome. It must be noted that these biomes were delineated on a desktop level [by the WWF] and are of low resolution and therefore often not accurate to a site-specific level.

Tropical & Subtropical Grasslands, Savannas & Shrublands

Large expanses of land in the tropics do not receive enough rainfall to support extensive tree cover. The Tropical and Subtropical Grasslands, Savannas, and Shrublands are characterized by rainfall levels between 900-1,500 mm per year. However, there may be great variability in soil moisture throughout the year. Grasses dominate the species composition of these ecoregions, although scattered trees may be common. Large mammals that have evolved to take advantage of the ample forage typify the biodiversity associated with these habitats.

Biodiversity Patterns

Diverse large mammal assemblages in abundant aggregations can be a characteristic feature. Most vertebrates display relatively widespread distributions. Plant alpha diversity is typically low, but in some regions beta diversity and gamma diversity can be very high.

Minimum Requirements

Large natural landscapes are necessary to allow large grazers and their associated predators to track seasonal rainfall or to migrate to new areas during periodic droughts; large-scale fire events also necessitate the conservation of larger natural landscapes. Some large predators, such as wild dogs of Africa, require large natural areas to persist due to home range size and sensitivity to humans. Sources of water are critical for many species.

Sensitivity to Disturbance

Restoration potential in these systems is high; but ploughing, overgrazing by domestic livestock, and excessive burning can quickly degrade and alter natural communities. Alteration of surface water patterns can have significant impacts on the persistence of many vertebrate species. Furthermore, many species are highly sensitive to low intensity hunting or other human activities.

2.4 Vegetation Types

The vegetation type associated with the study area is Woodland according to Vegetation Map of White, (1983). The woodland vegetation type comprises of an open stand of trees at least 8m tall and with a canopy cover of 40% or more (but never densely interlocking). The field layer is often dominated by grasses. (Kindt, et al.,2021).

3 SITE SPECIFIC ASSESSMENTS AND FIELDWORK

The aim of this section is to define and describe each Management Unit (MU) at the proposed Cassinga powerline project with respect to species diversity and habitat importance in order to provide information as to the need to manage, monitor and where necessary remediate impacts to the receiving environment. The data contained herein was sourced from the following studies: Faunal Assessment (STS 24-2026), Floral Assessment (STS 24-2026) and Freshwater Ecosystem Assessment (SAS 24-1055).

For the purpose of this BMP, four (4) MUs have been described for the study area in Table 1 and presented in Figure 4 to 19 below. Each MU is further discussed and expanded upon in dashboard format in Section 3.1 – 3.4 below.

Table 1: Management units associated with the proposed Cassinga powerline project.

Management unit	Identification
Management unit 1	Miombo Woodland Habitat
Management unit 2	Secondary Miombo Habitat
Management unit 3	Freshwater Habitat
Management unit 4	Transformed Habitat

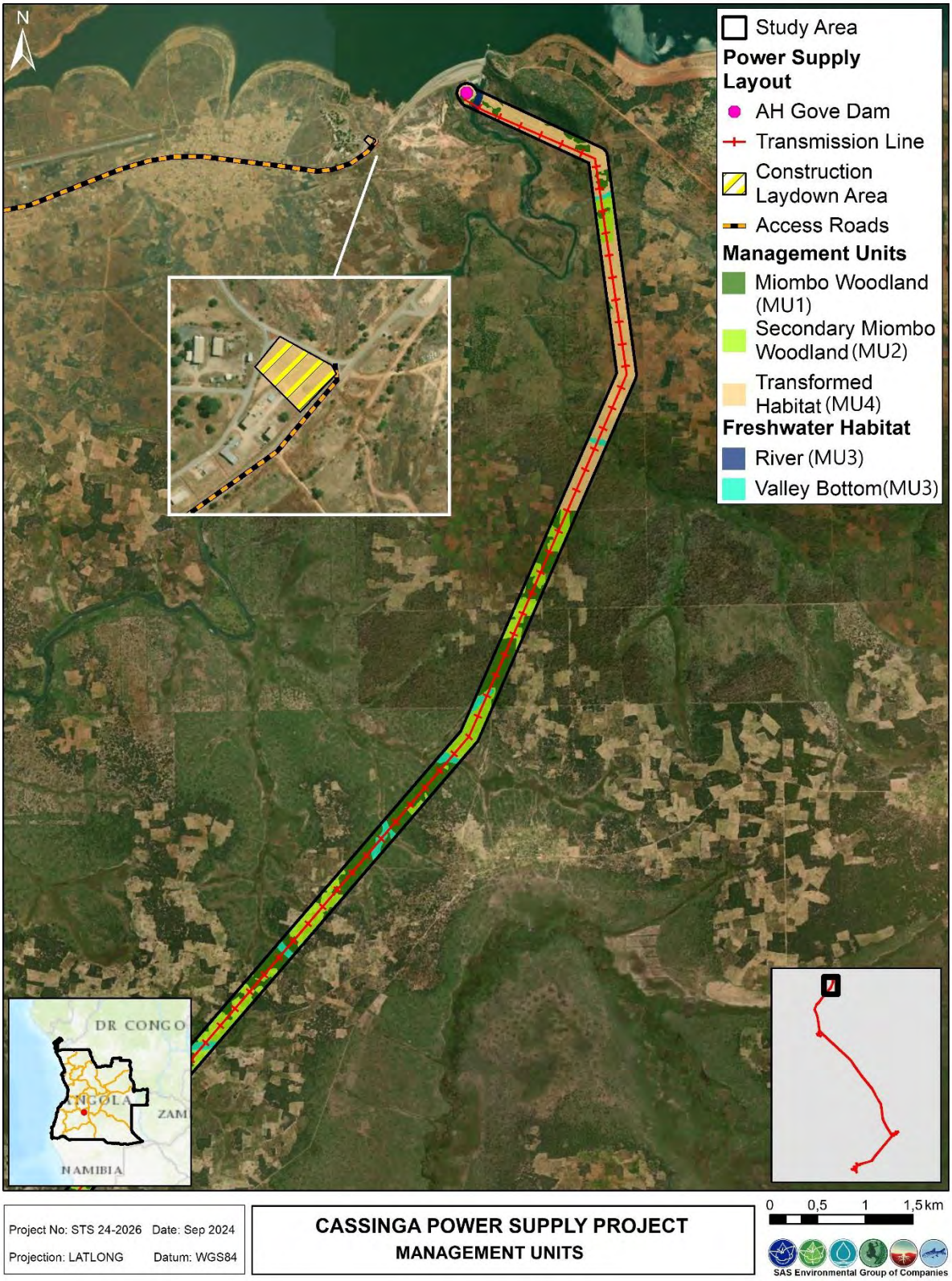


Figure 4: Conceptual illustration of the management units within the study area (Map 1 of 16).

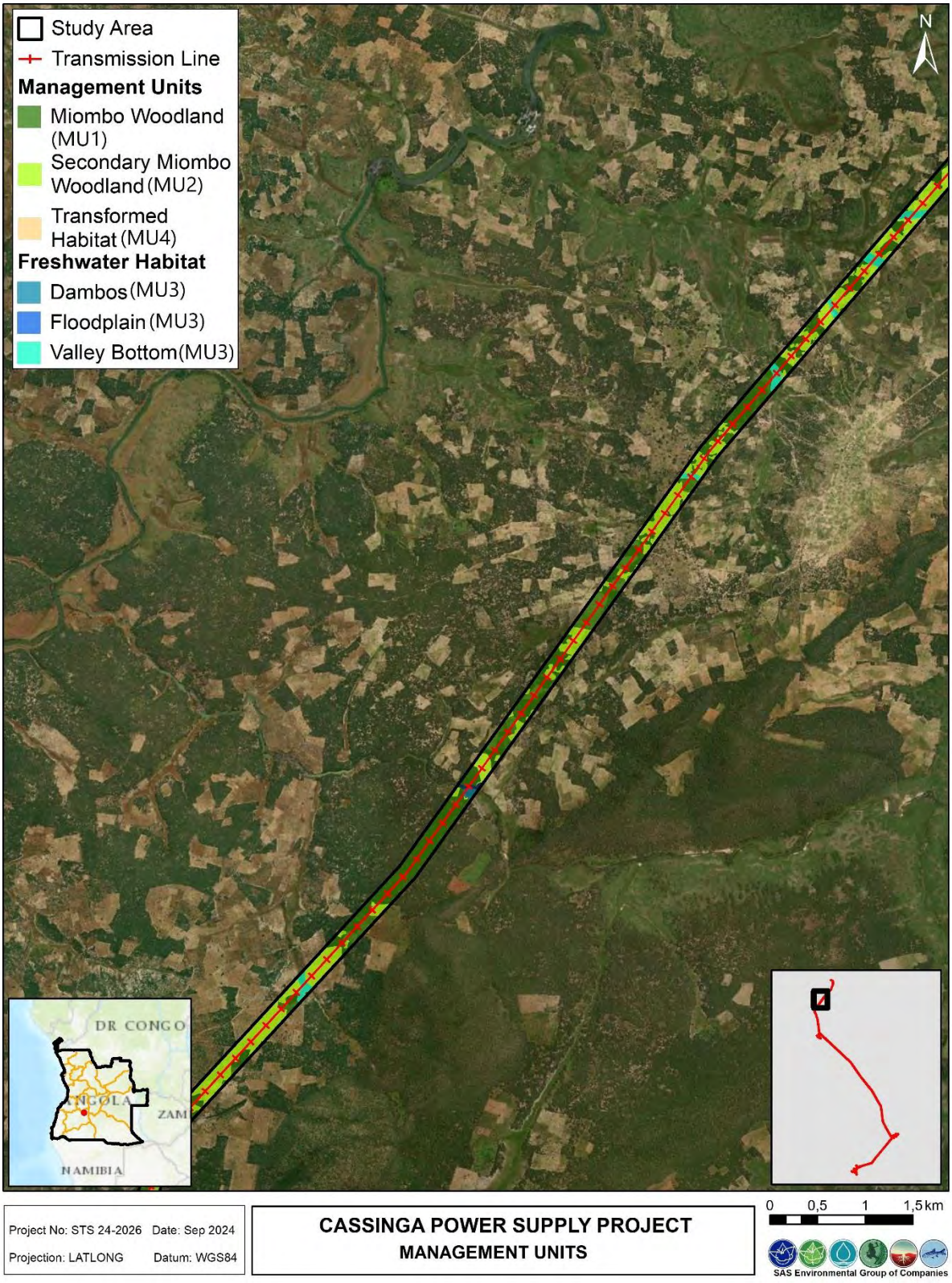


Figure 5: Conceptual illustration of the management units within the study area (Map 2 of 16).

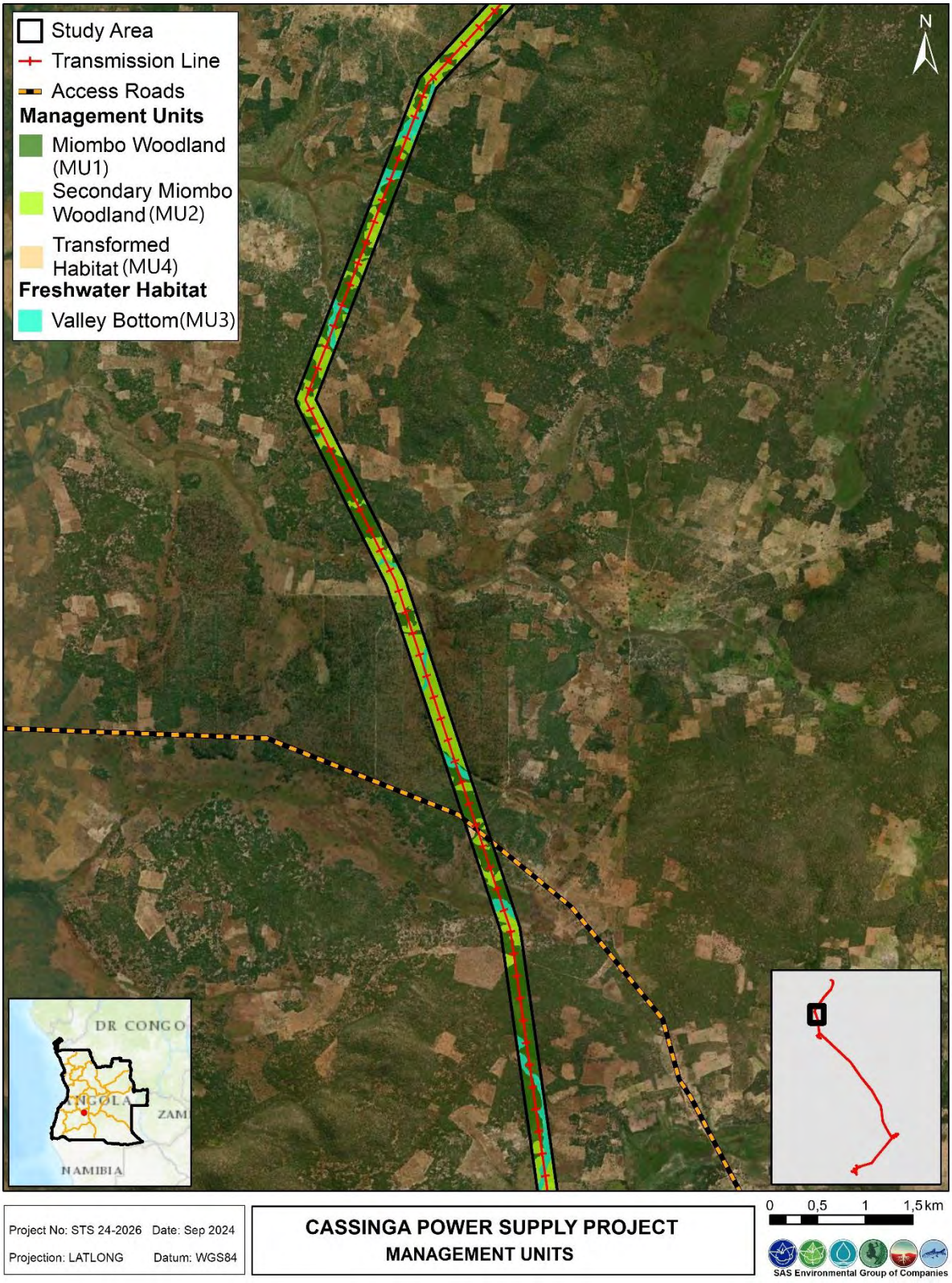


Figure 6: Conceptual illustration of the management units within the study area (Map 3 of 16).

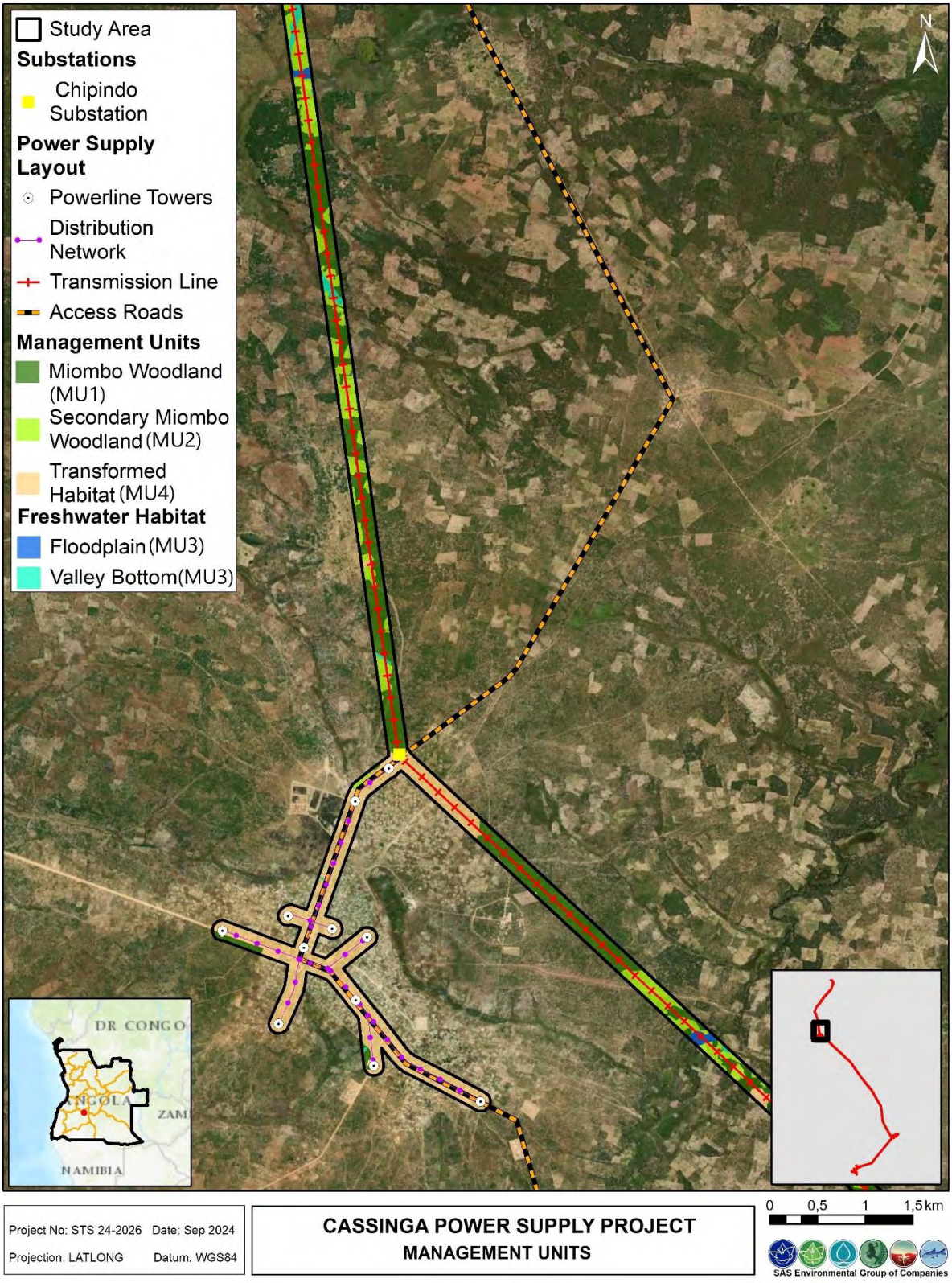


Figure 7: Conceptual illustration of the management units within the study area (Map 4 of 16).

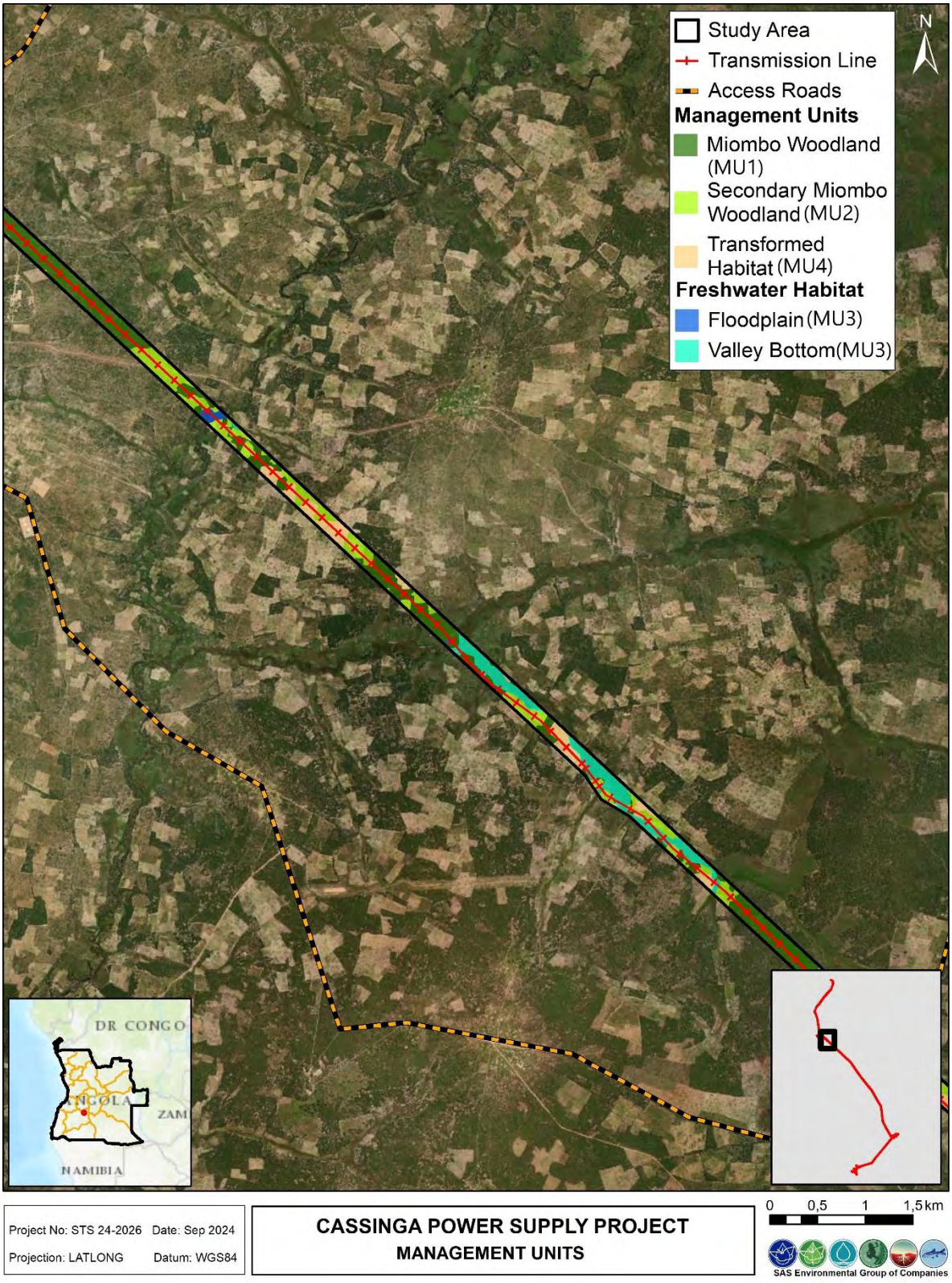


Figure 8: Conceptual illustration of the management units within the study area (Map 5 of 16).

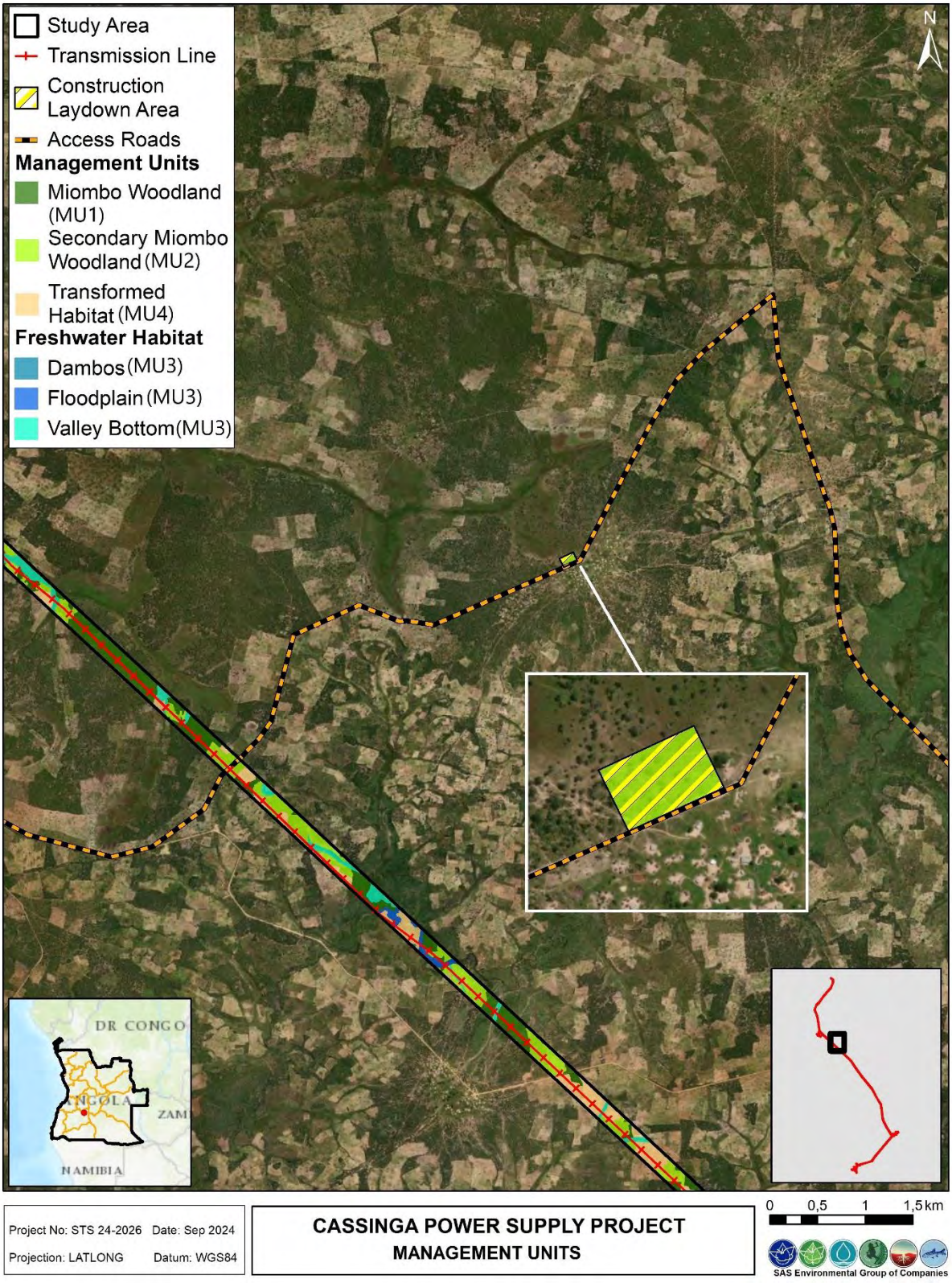


Figure 9: Conceptual illustration of the management units within the study area (Map 6 of 16).

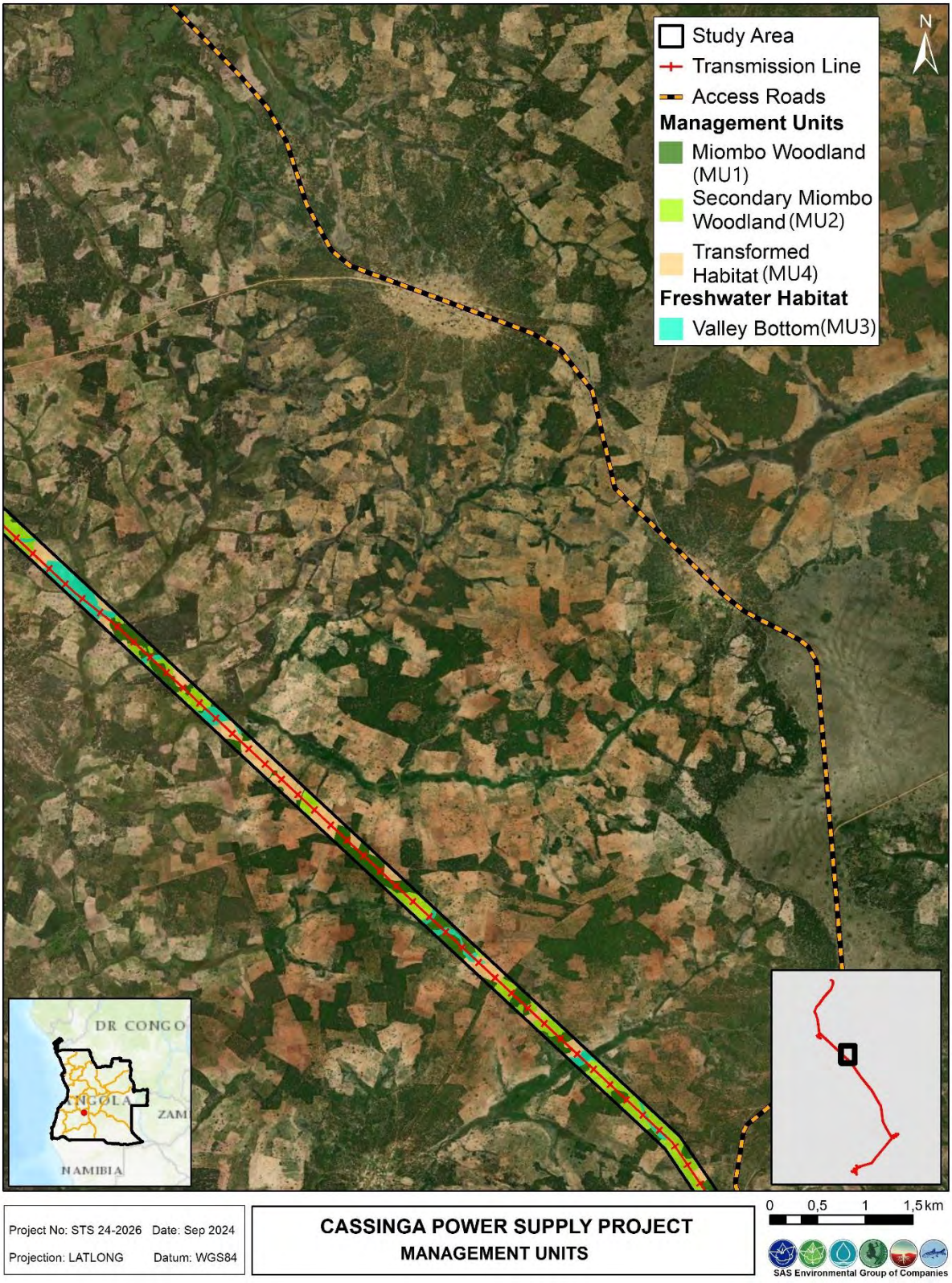


Figure 10: Conceptual illustration of the management units within the study area (Map 7 of 16).

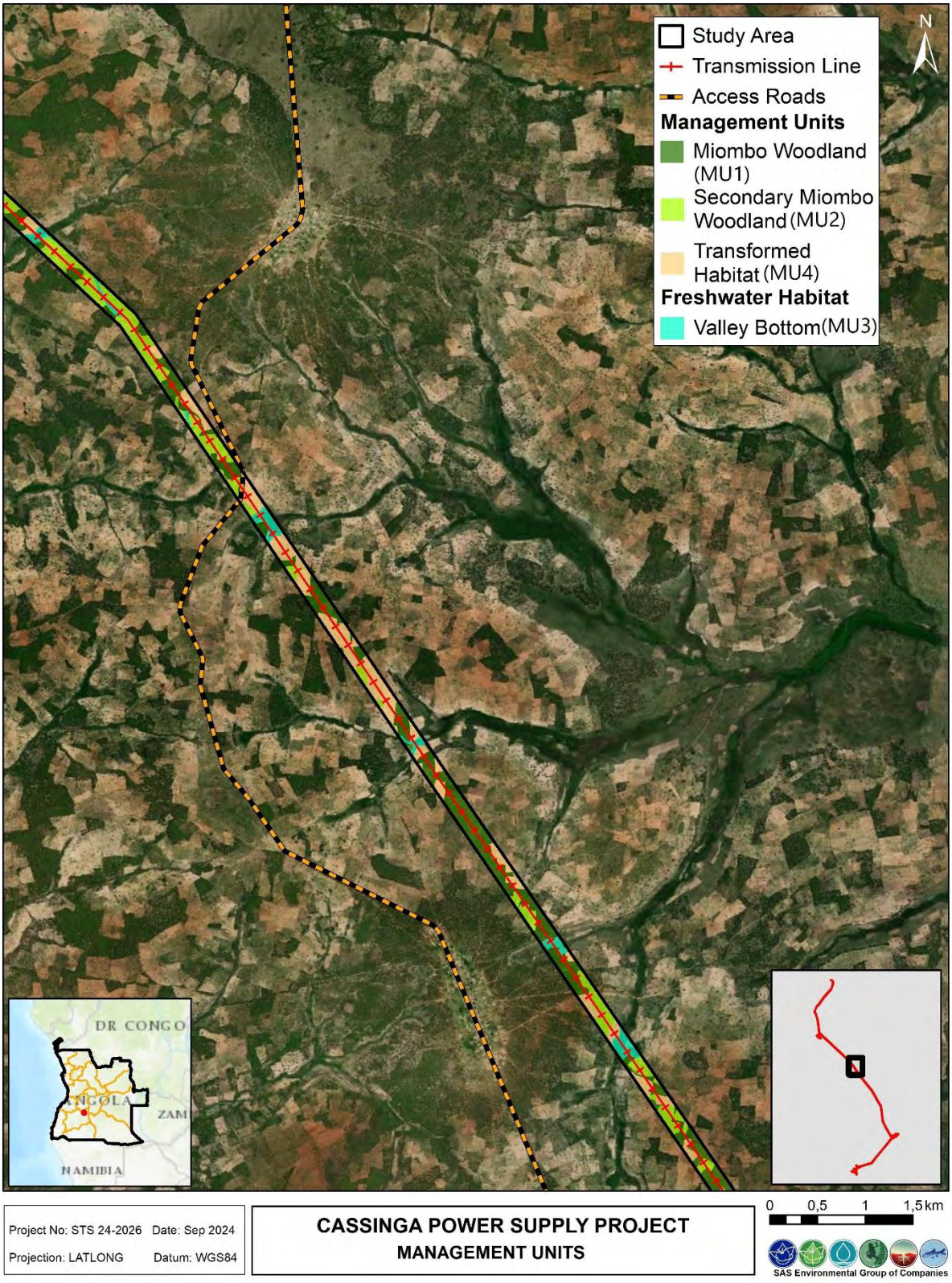


Figure 11: Conceptual illustration of the management units within the study area (Map 8 of 16).

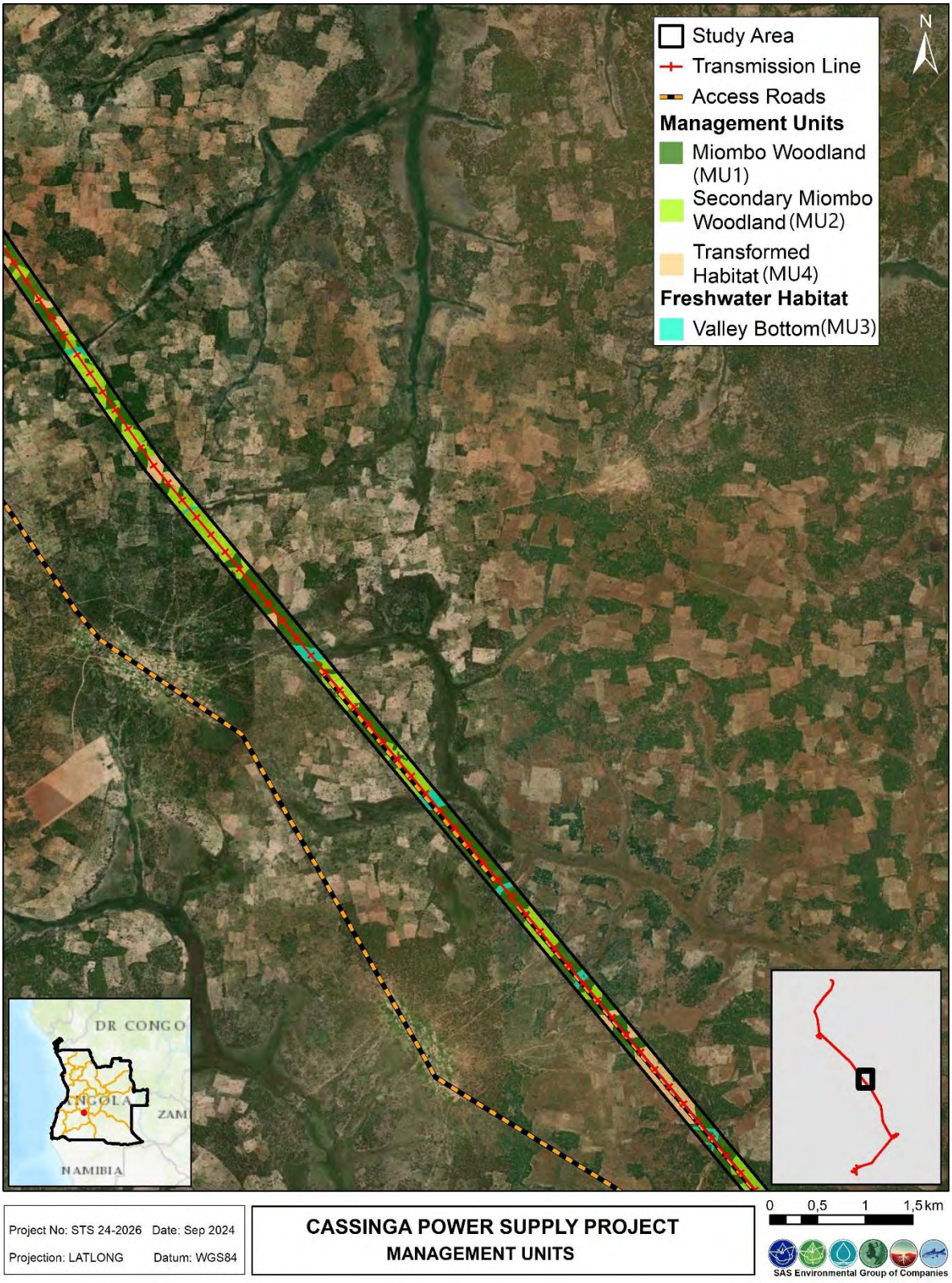


Figure 12: Conceptual illustration of the management units within the study area (Map 9 of 16).

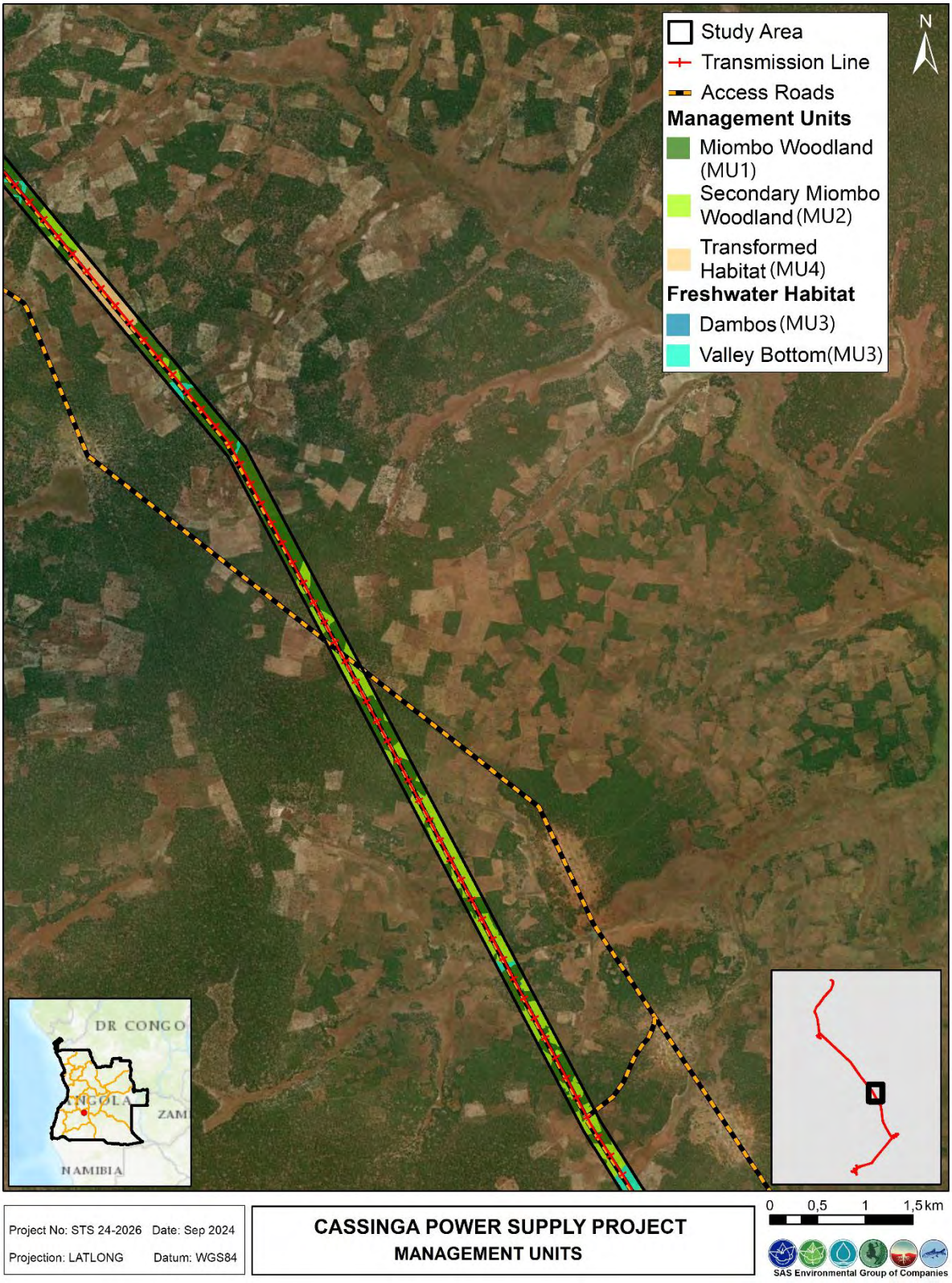


Figure 13: Conceptual illustration of the management units within the study area (Map 10 of 16).

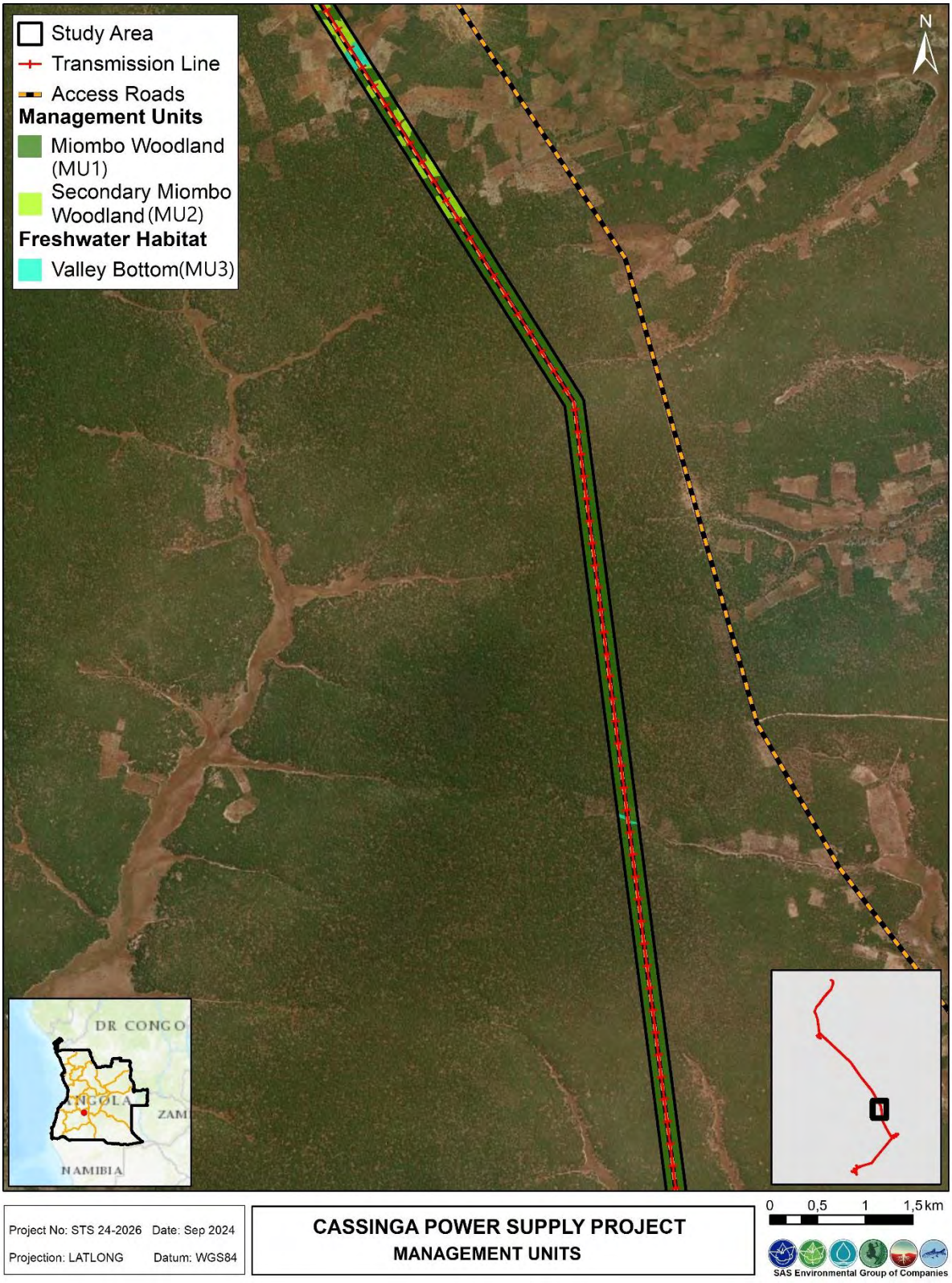


Figure 14: Conceptual illustration of the management units within the study area (Map 11 of 16).

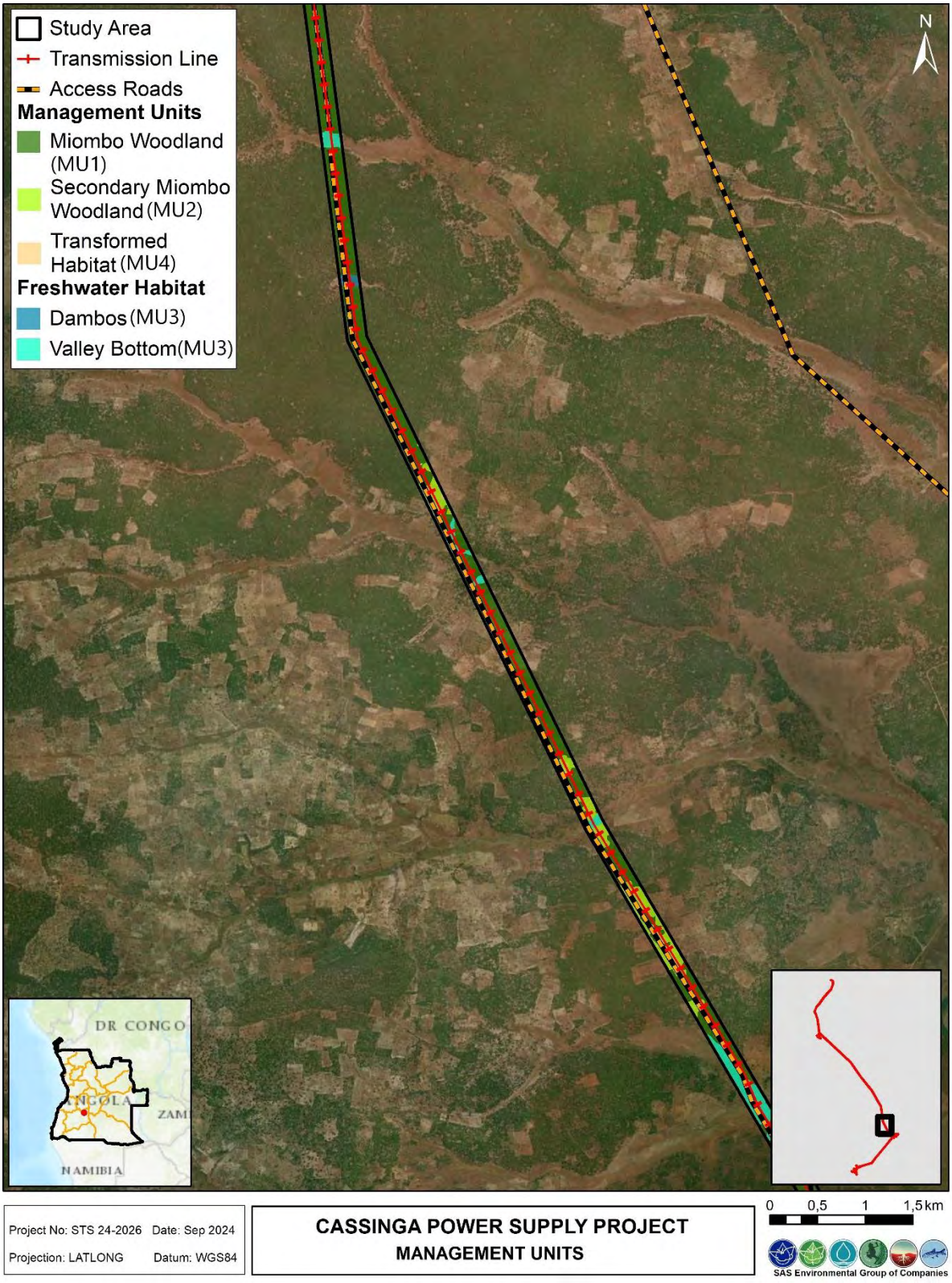


Figure 15: Conceptual illustration of the management units within the study area (Map 12 of 16).

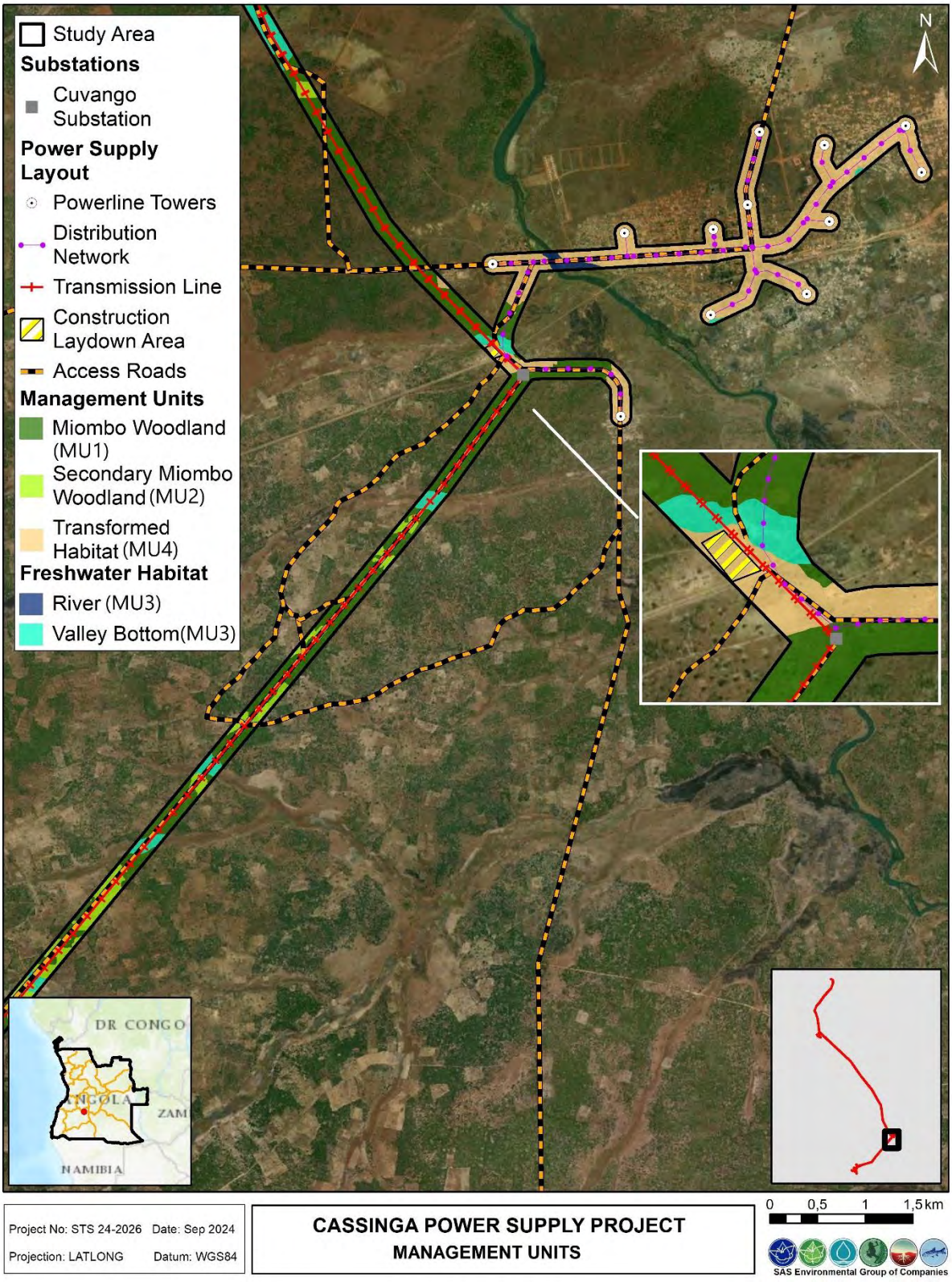


Figure 16: Conceptual illustration of the management units within the study area (Map 13 of 16).

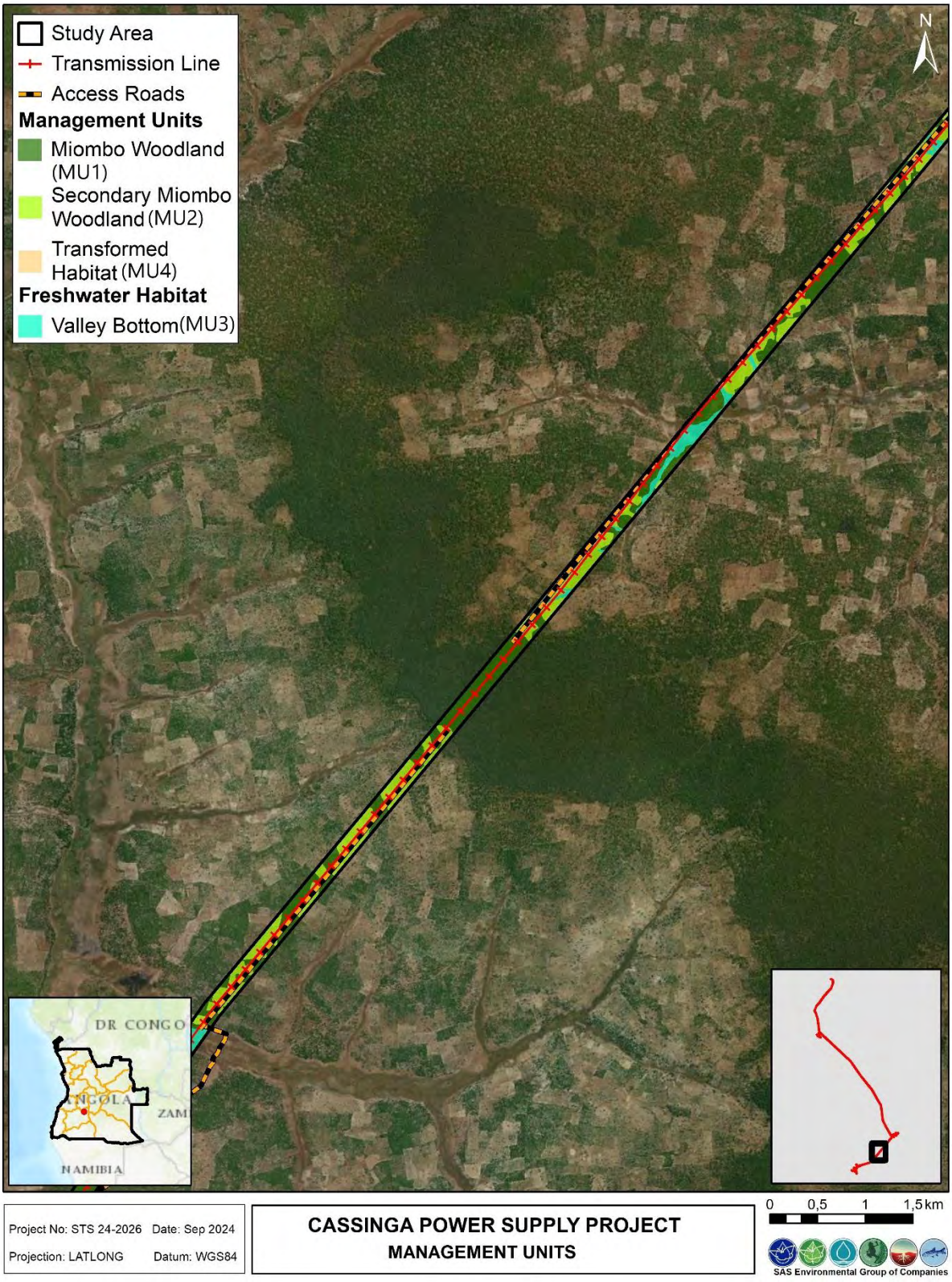


Figure 17: Conceptual illustration of the management units within the study area (Map 14 of 16).

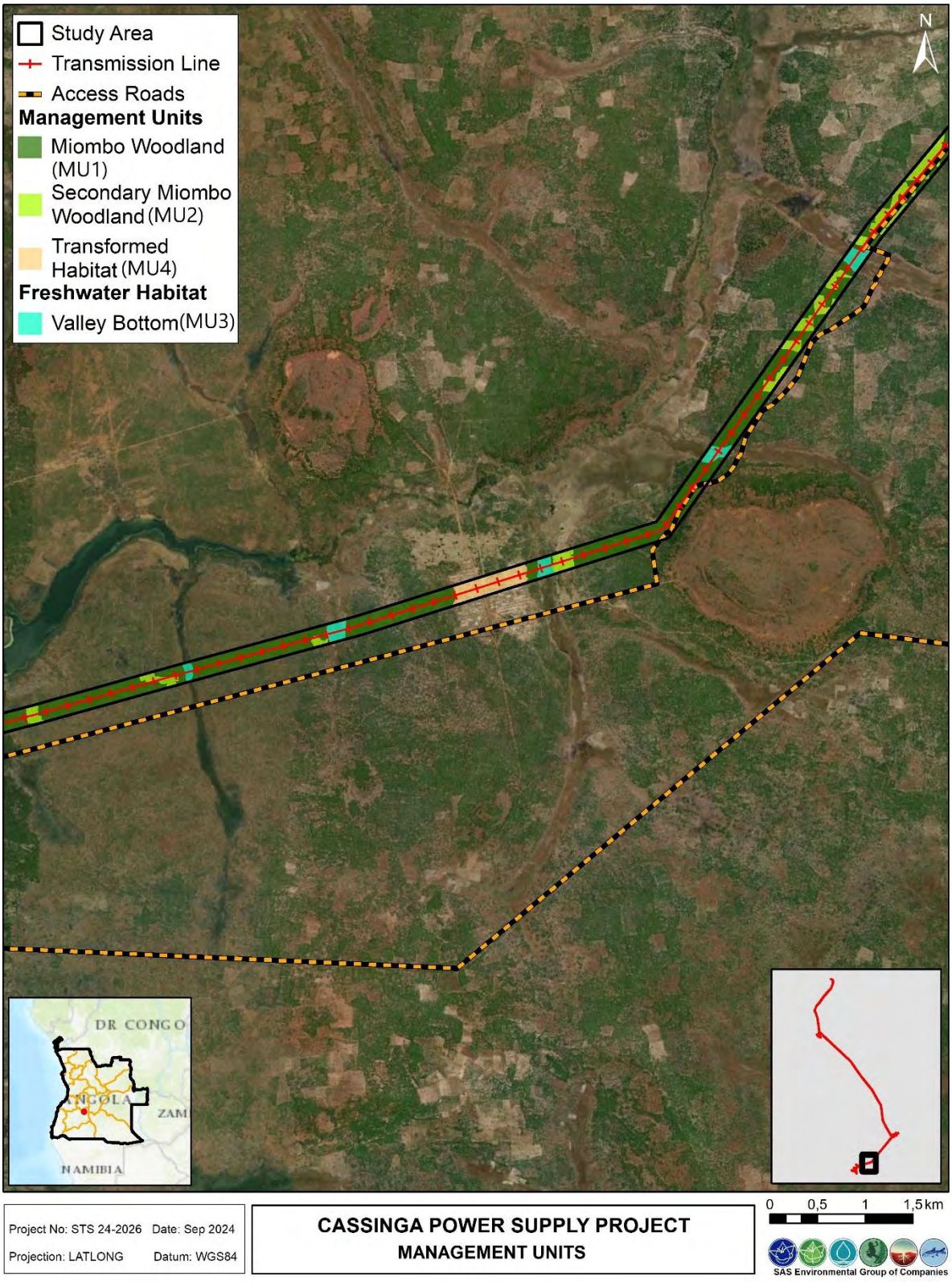


Figure 18: Conceptual illustration of the management units within the study area (Map 15 of 16).

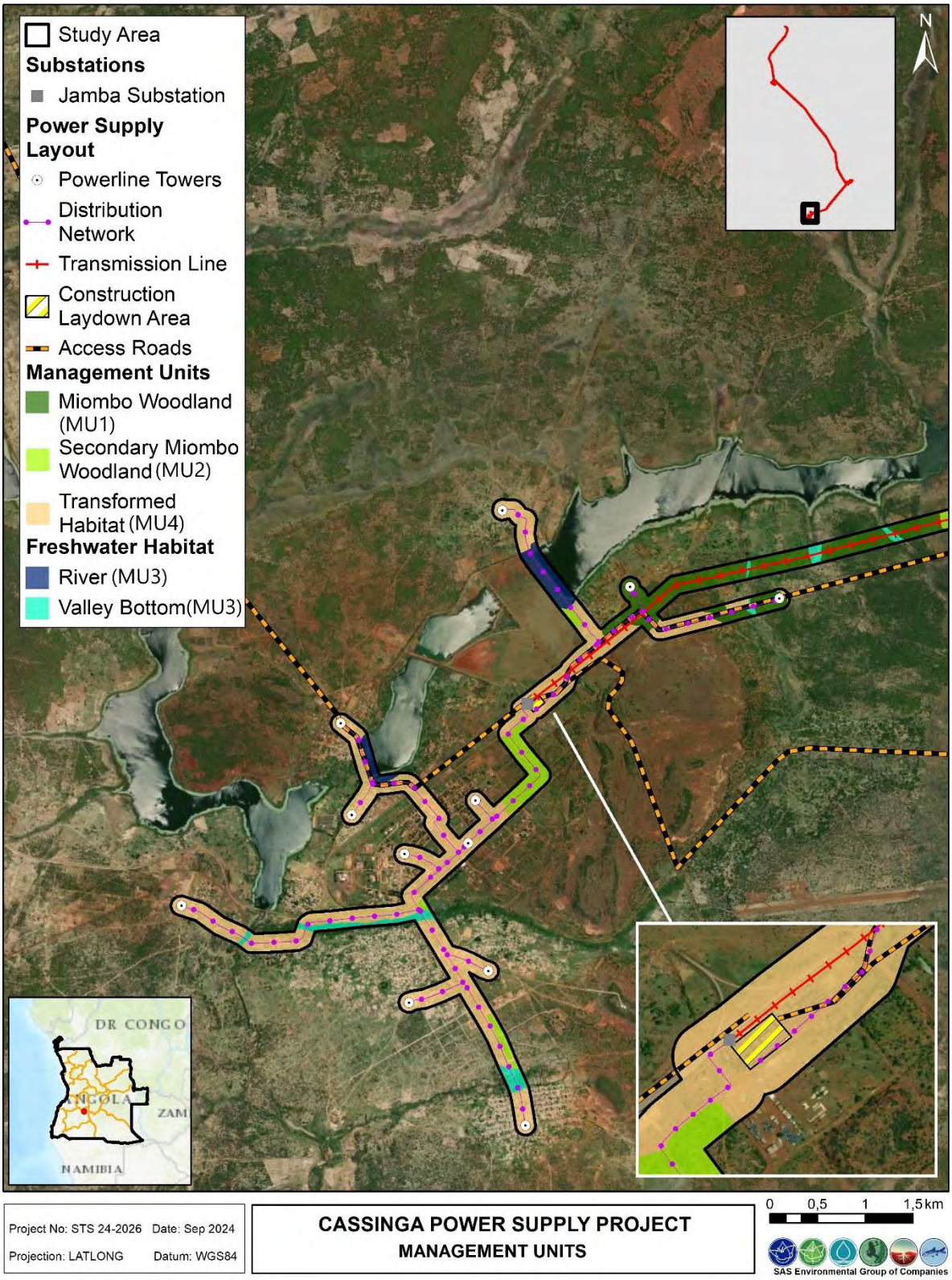


Figure 19: Conceptual illustration of the management units within the study area (Map 16 of 16).

3.1 MU 1 – Miombo Woodland

Photo reference for the Miombo Woodland Habitat	**Representative photographs illustrating the typical habitat associated with the Miombo Woodland.**
Habitat overview	Miombo woodlands are known for their expansive canopy of broadleaf, predominantly deciduous trees. From a floral perspective, this habitat unit showcases remarkable diversity, harbouring a plethora of plant species specifically adapted to the region's pronounced seasonal fluctuations. Characteristic of this habitat unit is the prominent hardwood taxa e.g., *Brachystegia boehmii* and *Julbernardia paniculata,* which dominate the landscape. The floral richness extends throughout the vertical strata, harbouring a diverse array of understory shrubs, herbaceous plants, and creeping plants.
Dominant floral species	Floral species diversity within the Miombo Woodland MU was moderately high and representative of the reference vegetation type in terms of species composition and vegetation structure. Dominant species recorded within the MU included the following: ➢ The woody layer was well developed with good structure, with a subset of shrubby species was recorded, e.g., *Julbernardia paniculata, Brachystegia boehmii, Pterocarpus angolensis, Dichrostachys cinerea* and *Terminalia brachystemma*; ➢ The graminoid layer was well-developed, comprising of the following species: *Digitaria eriantha, Heteropogon contortus* and *Panicum* sp.*;* ➢ The herbaceous layer consisted mostly of common, widespread species, such as *Commelina africana*; and ➢ AIP proliferation was low. Recorded species included *Tagetes minuta* and *Lantana camara*.
Discussion	The Miombo Woodland provides important ecoservices as the increase in floral species adds to the biodiversity of the area with medicinal floral species being present and a low probability of erosion as vegetation cover is high. The Miombo Woodlands further provide essential ecosystem services as they support the livelihoods of many rural people, i.e., providing "non-timber products such as fruit, honey, fodder and fuelwood"[1]. Ecological processes (nutrient cycling, fire dynamics, and species interaction) within the Miombo Woodland influences the floral diversity as preferred habitat is created.

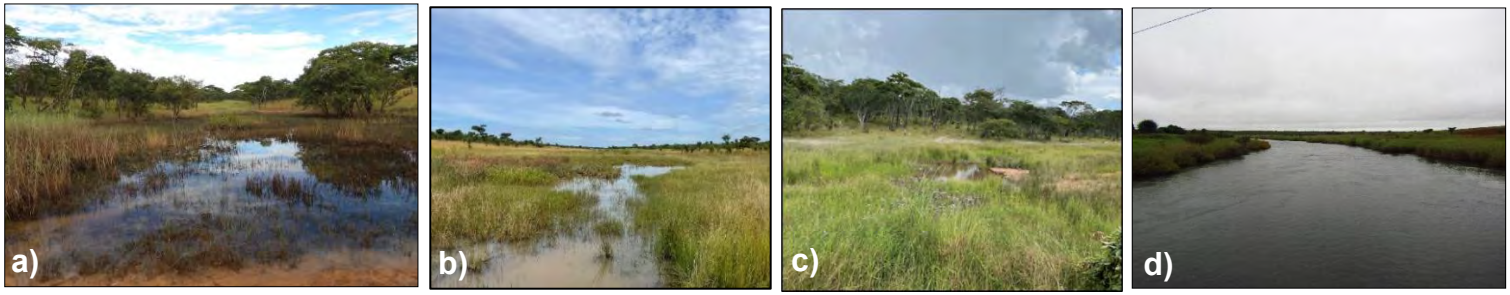
[1] https://forestry.co.za/miombo-network-calls-for-sustainable-and-integrated-management-of-miombo-forests/

3.2 MU 2 – Secondary Miombo Woodland

Photo reference for the Secondary Miombo Woodland	**Representative photographs illustrating the typical habitat associated with the Secondary Miombo Woodland.**
Habitat overview	The floral species within the Secondary Miombo Woodland habitat unit adds to the biodiversity of the area with medicinal floral species being present (although in lower numbers than what was observed in the Miombo Woodland) and areas with good vegetation cover will have a lower probability of erosion. The Secondary Miombo Woodland still provides essential ecosystem services as the livelihood of many rural people are supported by non-timber products such as fruit, honey, fodder, and fuelwood[2]. The ecological services within the Secondary Woodland still influences the floral diversity within the study area although at a lower level compared to the Miombo Woodland habitat unit. Across the study area, the vegetation community exhibits varying characteristics due to differing levels of anthropogenic impacts. In areas where trees were historically cleared, several miombo woodland species (*Terminalia brachystemma* and *Combretum zeyheri*) were dominant, with coppices and saplings evident, while larger trees have been harvested for charcoal production. In less disturbed areas, *Julbernardia paniculata* and *Brachystegia boehmii* were dominate the habitat unit.
Dominant floral species	Overall, the Secondary Miombo Woodland was representative of the reference vegetation type in terms of species composition but lacking in vegetation structure. Characteristic species recorded within the Secondary Miombo Woodland included: • The woody layer was poorly developed, with certain areas (close to villages) lacking large trees, although a subset of shrubby species was recorded, e.g., *Terminalia brachystemma*, *Julbernardia paniculata*, *Brachystegia boehmii*, *Parinari curatellifolia*, *Dichrostachys cinerea*, and *Diospyros kirkii*; • The graminoid layer was well-developed, comprising of the following species: *Sporobolus africanus* and *Digitaria eriantha*; • The herbaceous layer consisted mostly of common, widespread species, such as *Commelina africana* and *Hibiscus nigricaulis*; and • AIP proliferation was moderate. Recorded species included *Tagetes minuta* and *Lantana camara*.
Discussion	The Secondary Miombo Woodland habitat has significant levels of disturbance and vegetation clearing, leading to compromised habitat integrity and the diminishing of the distinctive landscape of this habitat unit. Despite historical and ongoing anthropogenic activities impacting this habitat unit, it still provides important ecoservices. Despite its secondary state, the Secondary Miombo Woodland plays a vital role in the ecosystem, contributing to biodiversity through the presence of various floral species, including medicinal species, and maintaining low erosion potential due to its dense vegetation cover. Ecological processes such as succession, nutrient cycling, and species diversity are instrumental in driving the recovery and development of this habitat unit following disturbance, ultimately influencing floral diversity and enhancing ecosystem resilience.

[2] https://forestry.co.za/miombo-network-calls-for-sustainable-and-integrated-management-of-miombo-forests/

3.3 MU 3 – Freshwater Habitat

Photo reference for the Freshwater Habitat	 **Representative photographs illustrating the typical habitat associated with the Freshwater Habitat. A.) various valley bottom wetlands, c.) and d.) - Cubango River (located in Cuvango)**
Habitat overview	The Freshwater Habitat extensively spans the study area, featuring dambos (smallest of the Freshwater Habitat subunits within the study area, i.e., approximately 4 ha), and riparian zones characterised by elevated floral species diversity, a typical trait of such environments. Many floral species observed in these regions are exclusive to these habitats preferring areas with higher soil moisture content. Riparian areas, which are associated with rivers (of which approximately 29 ha occur in the study area), largely retain their integrity despite agricultural encroachment, with the remaining vegetation primarily consisting of woody species. Local communities utilise valley bottom wetlands (largest of the Freshwater Habitat subunits within the study area, i.e., approximately 262 ha), both channelled and unchannelled, for water collection, as water sources for livestock, and for washing clothes. Agricultural activities were noted on the edges of these wetlands. Cultivation activities and livestock grazing have impacted dambos and floodplains, leading to a reduction in natural vegetation cover and, in some instances, the encroachment of woody species. Despite enduring anthropogenic pressures, the overall integrity and diversity of the Freshwater Habitat (all subunits) remain moderately high.
Dominant floral species	Overall, the Freshwater Habitat is representative of the reference vegetation type in terms of species composition and vegetation structure. Characteristic species recorded within the **Freshwater Habitat** included: • Some woody species were present within the riparian areas, and the woody layer was poorly developed and was largely lacking within the floodplains, valley bottom wetlands and dambos. Riparian woody species typically associated with the rivers included, e.g., *Ficus sycomorus*, *Mucuna coriacea* and *Vitex doniana*; • The graminoid layer was well-developed, comprising of the following species: *Cynodon dactylon*, *Cyperus* sp., and *Cyperus tenuiflorus*; • The herbaceous layer comprising of the following species: *Floscopa glomerata* and *Ethulia conyzoides*; and • AIP proliferation was moderate. Recorded species included *Tagetes minuta* and *Bidens pilosa*.
Discussion	Recognised for its significance in ongoing species conservation and habitat provision, the Freshwater Habitat stands out in the landscape due to its high species diversity including the unique species associated with these habitats. The Freshwater Habitat play a crucial role in providing ecosystem services such as water purification, flood regulation, carbon sequestration, habitat provision, and floral species diversity. Freshwater Habitat provides very important ecological processes as including habitat for floral species that prefer saturated soil.

3.4 MU 4 – Transformed Habitat

Photo reference for the Transformed Habitat	**Representative photographs illustrating the typical habitat associated with the Transformed Habitat.**
Habitat overview	The transformed habitat does not provide important ecosystem services like the Miombo Woodland, lacking in medicinal floral species and having a higher probability of erosion due to reduced vegetation cover. The habitat unit does support rural livelihoods by offering non-timber products such as fruit, fodder, and some fuelwood. Within the transformed habitat, ecological processes like nutrient cycling, fire dynamics, and species interactions do not significantly influence floral diversity, as the habitat is less conducive to creating preferred habitats for various plant species. The Transformed habitat is characterised by areas affected by anthropogenic activities which include agricultural activities (planting of *Zea mays* (Maize) and *Glycine max* (Soybean) and areas cleared of vegetation where homesteads were observed. Large areas have been cleared for agricultural activities, where trees have been cleared for local charcoal production. In the northern section of the study area, plantations were observed where native trees were removed and *Eucalyptus* sp. were planted
Dominant floral species	Overall, the Transformed Habitat starkly contrasts the reference vegetation type in terms of species composition and vegetation structure. Characteristic species recorded within the **Transformed Habitat** included: • The woody layer was poorly developed and was largely lacking, although a subset of shrubby species was recorded, e.g., *Terminalia sericea*, *Dichrostachys cinerea*, *Piliostigma thonningii*, and *Erythrina zeyheri*; • The graminoid layer was well-developed in areas where ground was covered by vegetation, comprising of the following species: *Hyparrhenia* spp*, Cynodon dactylon*, *Melinis repens* and *Eragrostis biflora*; • The herbaceous layer *Cassytha filiformis* and *Hibiscus nigricaulis*; and • AIP proliferation was fairly prolific. Recorded species included *Zea mays*, *Cucurbita* sp, *Tagetes minuta*, *Lantana camara* and *Bidens pilosa*.
Discussion	This agricultural conversion starkly contrasts with the reference Miombo Woodland vegetation characteristic of the region. While vital for food production, agricultural lands exhibit a markedly reduced floral species diversity and notable habitat integrity loss. Furthermore, they lack uniqueness as habitats and do not contribute significantly to the overall conservation status or ecological value of the region. The Transformed habitat will have low ecoservices as the floral species diversity and richness is low and will not add to the biodiversity of the area. A low number of medicinal floral species were present. The potential for erosion will be high as vegetation cover within the habitat unit was low with a lot of the areas being open ground. The ecological processes within the Transformed habitat is negatively altered as a result of the anthropogenic activities present, thus altering nutrient cycling and floral diversity within the habitat unit.

4 BIODIVERSITY MANAGEMENT PLAN

This BMP recognises the biodiversity value of the habitats within the study area as “valuable biodiversity assets” which need to be protected and managed to avoid further loss and impacts to the receiving environment.

This BMP sets out a framework and plan for the management of biodiversity aspects within the study area. The actions in the BMP should be integrated into all planning phases of the proposed Cassinga powerline project to ensure biodiversity aspects are effectively managed to ensure the persistence of healthy, functioning and representative ecosystems and associated services to benefit both present and future generations. It is important to note that this is a live document which may require amendments/updates based on site conditions, data gathered and unprecedented situations. Any amendments must be undertaken by an external suitably qualified biodiversity specialist. An independent auditor should assess all internal documentation annually and submit the findings to the relevant authorities.

Factors that will need to be considered with respect to the implementation of this BMP include the following:

- Alignment with emergency action plans, e.g. rehabilitation strategy, implementation programme;
- Identification and liaison with stakeholders and neighbouring properties;
- Obtaining all the relevant authorisations and permits where required; and
- Ensuring available budget and manpower for the implementation, management and maintenance of the BMP.

The overall; objective of this BMP is to help ensure that the proposed Cassinga powerline project is able to achieve the overarching goal defined as: **Conserving and managing biodiversity aspects through responsible planning, construction and rehabilitation, taking cognisance of the surrounding ecological systems and their importance on a local and regional scale.**

The above goal can be achieved through the management and rehabilitation of representative portions of the landscape to ensure no net loss of biodiversity on a local scale, and to ensure SCC diversity and populations continue in support of sustainable use for both present and future generations.

The BMP is set out according to the priority ranking (Tables 2-4). The plan is discussed with reference to the management units identified within the study area. The management units are:

- MU1 – Miombo Woodland Habitat;
- MU2 – Secondary Woodland Habitat;
- MU3 – Freshwater Habitat; and
- MU4 – Transformed Habitat.

The plans for the project area are prioritised as follows:

PRIORITY RANK	COLOUR
CRITICAL ACTIONS	
IMPORTANT	
LOW PRIORITY	

Factors that will need to be considered with respect to implementation of these plans include the following:

- Integration into existing group policy and management systems, including the Environmental Management Plans;
- Alignment with the applicable emergency action plans, e.g. fire prevention plan, and the rehabilitation plan and/or rehabilitation strategy and implementation programme;
- Identification and liaison with stakeholders and neighbouring properties, especially with respect to a weed / invader and erosion control action plans; and
- Available budget and manpower for implementation, management and maintenance.

It is also important that monitoring of the BMP is carried out to determine the effectivity of plans, and to justify the costs and the allocation of time and manpower to such an exercise. It is therefore important that the biodiversity monitoring continues to ascertain any changes to the PES and / or species composition that may indicate new emerging trends or potential problems that need to be delt with accordingly. The integration of biodiversity principles and the actions being undertaken by the group should also be implemented into the training and environmental education of staff. Training could include general aspects, such as the importance of biodiversity, and could extend to specialist training in the rehabilitation and stabilisation of wetland areas.

Table 2: Biodiversity Management Plan for critical activities pertaining to the proposed Cassinga powerline project.

	OBJECTIVE	ACTION	ACTIVITIES	KEY PERFORMANCE INDICATOR (KPI)	APPLICABLE MANAGEMENT UNIT	RESPONSIBLE PERSON/ DEPARTMENT	TARGET DATE
CRITICAL ACTIVITIES							
1	Alien Plant Control	Implement the AIP Control Plan	• Identify priority areas for AIP control; • Appoint a certified contractor; • Monitor AIP control activities and success rates; and • Ensure that the appropriate control methods are being used, notably when chemicals are being used in close proximity to the freshwater habitat.	• AIPs are being controlled and removed from target areas. Any regrowth is being suitably dealt with; • Appropriate methodologies are being implemented; and • AIP abundances in the study area are reducing.	MU1 MU2 MU3 MU4		
2	Access roads and operational areas to be monitored for erosion and edge effects.	Minimise loss of sensitive habitat, floral and faunal SCC in the areas surrounding the operational footprint. Monitor and minimise erosion and other edge effects.	• Where erosion is taking place, erosion control measures are to be put in place to minimise further loss of soil and habitat; • Monitor natural areas adjacent the proposed footprint areas for edge effects / impacts. Where such impacts are identified, appropriate rectification actions are to be taken; and • Access roads must not impact on wetland and/or riparian zones of watercourses and existing access roads must be used as far as practical to do so.	• Areas of erosion have been identified and suitable management actions put in place; • Mitigation measures as stipulated in specialist reports are being implemented and adhered to; • Disturbed areas have been rehabilitated and are being monitored for vegetation regrowth and erosion activities; and • No footprint creep is occurring into the surrounding natural areas.	MU1 MU2 MU3 MU4		
3	Monitor plant survival and establishment of any floral SCC that have been relocated (if any)	Monthly monitoring (or as needed) of relocated / planted floral SCC, noting plant establishment and health.	• For the first year relocated plants must be monitored and success or failure noted; and • Failure of plant species / none-survivability must be noted and investigated to try to ascertain why the failure occurred (incorrect removal / planting methods, unsuitable relocation site, damage to plant during relocation activities or fires etc).	• Relocated / planted floral species have established in new locality; and • New growth is visible and survivability has been confirmed.	MU1 MU2 MU4		
4	Monitor avifaunal collision with powerline infrastructure and / or electrification	Implement the avifaunal monitoring program.	• Installation of Bird Flight Diverters (BFD) along the conductors, at a maximum distance of 20 m, and placed alternately from one conductor to the other. • These flags can be double-signalling spirals and bright and visible colours. Other alternative BDF are rotating or ribbon fireflies; • The tension cables of up to 120cm on each side of the support posts and substations must be covered; they can be flexible cables, or self-vulcanising tapes, for example; • Anti-landing and anti-nesting devices must be installed on top of the poles.	• Ensure mitigation measures as stipulated in specialist reports are being implemented and adhered to; • Appropriate methodologies are being implemented; and • Possible avifaunal collisions in the study area are reducing.	MU1 MU2 MU3 MU4		

	OBJECTIVE	ACTION	ACTIVITIES	KEY PERFORMANCE INDICATOR (KPI)	APPLICABLE MANAGEMENT UNIT	RESPONSIBLE PERSON/ DEPARTMENT	TARGET DATE
CRITICAL ACTIVITIES							
5	Monitor for raptor nests within a 500m buffer around the Proposed power line and associated infrastructure.	Implement raptor nest monitoring.	• Monitoring for raptor nest must be implemented before construction is implemented; • Nest must be marked with GPS coordinates; • The marked nesting sites must be used to inform the proposed powerline layout and if the nesting site cannot be avoided, nesting sites must be avoided during the breeding season or the proposed powerline alignment should be amended.	• Ensure mitigation measures as stipulated in specialist reports are being implemented and adhered to; and • Appropriate methodologies are being implemented.	MU1 MU2 MU3 MU4		
6	Monitor for soil and/or water contamination.	Routine inspections of active construction areas for hydrocarbon (fuels and oils) and other chemical leaks emanating from construction vehicles and equipment.	• Soil contamination near wate resources can lead to contamination of the resource and impact on the dependent biodiversity. • No servicing or refuelling of vehicles and equipment must take place near any freshwater resources during all phases of the proposed development. Designated workshop/service areas must be established that are suitable bunded and protected to avoid contaminants being transported toward surface water resources during rainfall events or when accidental spills occur. • Construction vehicles and equipment must be inspected daily for any fluid leaks. Should fluid leaks be detected, the vehicle or piece of equipment must be removed from the site and repaired. • Soil spill kits should be readily available at all active construction sites so that chemical and/or hydrocarbon spills can be cleaned and removed from site before contamination of the surrounding habitat occurs. • Any significant spills near a wate resources should trigger an emergency cleanup response and implementation of a water quality monitoring regime to be implemented until monitoring data indicates no further persistence of deleterious impacts to the freshwater habitat units. • Biological monitoring and chemical analysis of the water resource that may have been impacted should be implemented immediately following a spill event, and then monthly thereafter until data indicate that no further impacting features are being imposed.	• Mitigation measures as stipulated in specialist reports are being implemented and adhered to. • All contaminated soils must be contained and removed from the site, with disposal being implemented at a registered disposal site. • Accidental spillages that have impacted freshwater resources must be monitored for deleterious impacts. Biological and chemical analysis of the water resource must be undertaken until data indicate that variables have returned to the pre-incident status.	MU3, but generally applicable		

Table 3: Biodiversity Management Plan for important activities pertaining to the proposed Cassinga powerline project.

	OBJECTIVE	ACTION	ACTIVITIES	KEY PERFORMANCE INDICATOR (KPI)	APPLICABLE MANAGEMENT UNIT	RESPONSIBLE PERSON/ DEPARTMENT	TARGET DATE
IMPORTANT ACTIVITIES							
1	To ensure any erosion resulting from operational and maintenance related activities, is controlled.	Eroded areas are to be monitored, controlled and rehabilitated whilst any new aeras of erosion must be remedied.	• Identify possible activities which are causing erosion (poor stormwater management, increased hard surfaces and water runoff etc); • Berms, soil traps, hessian curtains, brush packing and stormwater management must be implemented to managed eroding areas; and • Rehabilitate areas where earthworks or vegetation clearing has taken place to prevent further erosion.	• Monitoring of current erosion areas and new ones is being undertaken; • Eroded areas are being managed and rehabilitated; and • Bare areas prone to erosion have been reseeded and monitored as per the rehabilitation and closure plan prior to erosive activities occurring.	MU1 MU2 MU3 MU4		

2	Continued rehabilitation of disturbed areas.
	
	Continued AIP control.
		Continue to monitor and manage rehabilitated areas.
		
		Continue to monitor and manage AIPs.
			• Rehabilitate areas previously disturbed by construction related disturbances and activities;
			  ○ Monitor rehabilitated sites annually.
			• Edge effects and footprint creep relating to the proposed Cassinga powerline project activities needs to be strictly managed;
			• Continue with the comprehensive alien vegetation monitoring and control program which should:
			  ○ Identify priority areas;
			  ○ Identify priority species to control in consultation with relevant stakeholders; and
			  ○ Removal and control of alien plant species.
				• AIP control plan I in place;
				• Compile an alien vegetation control programme and implement during construction phase; and
				• Recommendations to better manage rehabilitation activities have been provided.
					MU1
					MU2
					MU3
					MU4		

Table 4: Biodiversity Management Plan for low priority activities pertaining to the proposed Cassinga powerline project.

	OBJECTIVE	ACTION	ACTIVITIES	KEY PERFORMANCE INDICATOR (KPI)	APPLICABLE MANAGEMENT UNIT	RESPONSIBLE PERSON/ DEPARTMENT	TARGET DATE
LOW PRIORITY ACTIVITIES							
1	Ensure wildlife conflict management measures are in place, notably pertaining to venomous snakes.	Educate and train all staff as to the biodiversity of the study area and the region. Educate staff about proper processes when dealing with wildlife.	• Develop a training and information session for all project employees regarding the biodiversity of the receiving environment; and • Educate staff members about venomous snakes in the area and the correct procedures to follow should they contact any of these species occur.	• Nominated personnel has been sent on specialist snake handling courses; and • Procedures to follow should a venomous snake be encountered in the study area are in place.	MU1-4		
2	Suitable resources and literature available to staff to better understand the biodiversity and freshwater systems associated with the study area.	Ensure that the necessary faunal and floral literature and information on important habitats, species and the overall biodiversity of the proposed Cassinga powerline project is available to staff.	• Ensure suitable literature is available and updated when needed; and • Available information should be easily available to staff members.	• All information pertaining to the biodiversity associated with the proposed Cassinga powerline project is easily accessible through in various formats.	MU1-4		

5 CONCLUSIONS AND RECOMMENDATIONS

The BMP can assist in the maintenance of the local and regional biodiversity objectives. The management actions as suggested in the report will be sufficient to enhance the ecological state of the sensitive areas and minimise and manage the impacts associated with the proposed Cassinga powerline project. The BMP can also assist in the adequate protection of the downstream watercourses and maintenance and enhancement of the PES and function of these systems by not detrimentally impacting on the receiving environment.

The plan will lead to enhanced value of the biological resources in the vicinity of the proposed Cassinga powerline project and will assist in creating opportunities for the community and employees of the proposed Cassinga powerline project to learn about the biodiversity of the area. The BMP has been designed to address high priority issues to low priority issues in a clearly prioritised manner. Once the critical issues have been addressed, the important and low priority activities can be addressed. The information gathered through monitoring programs will assist in a better understanding of the ecology of the area in the vicinity of the operations and will assist in ensuring that closure activities reach the desired goals for post decommissioning phase land use and biodiversity conservation.

As part of this BMP, a large component associated with monitoring is required to monitor and ensure ecological improvement and biodiversity sustainability of the study area by means of the application of the principle of adaptive management. It is important to note that this is a **live document which may require amendments/updates based on site conditions, data gathered and unprecedented situations**. Any amendments must be undertaken by an external suitably qualified biodiversity specialist. The information gathered through monitoring programs will assist in a better understanding of the ecology of the area in the vicinity of the operations and will assist in ensuring that closure activities reach the desired goals for post decommissioning phase land use and biodiversity conservation.

6 REFERENCES

Campbell, B, P. Frost, and N. Byron. 1996. Miombo woodlands and their use: overview and key issues. Pages 1-10 in B. Campbell, editor. The Miombo in Transition: Woodlands and Welfare in Africa. CFIOR, Bogor.

Cummins, K.W. 1994. Bio-assessment and analyses of functional organisation of running water ecosystem. In: Biological monitoring of Aquatic systems. Lewis Publishers, Boca Raton.

Davis, B and Day, J. 1998. Vanishing waters. University of Cape Town Press, Cape Town, South Africa.

Dean, W.R.J. 2000. The Birds of Angola: An annotated checklist. BOU Checklist No. 18. British Ornithologists' Union, Herts, U.K.

Frost, P. 1996. The ecology of miombo woodlands. Pages 11-57 in B. Campbell, editor. The Miombo in Transition: Woodlands and Welfare in Africa. CFIOR, Bogor.

Hellawell, J.M. 1986. Biological indicators of freshwater pollution and environmental management. Elsevier, London.

Hocutt, C.H., Johnson, P.N., Hay, C. and van Zyl, B. 1994. Biological basis of water quality assessment: The Kavango River Namibia. Rev. Hydrobiol. Trop. 27:4, 361-384.

Huntley, B.J. 1974. Outlines of wildlife conservation in Angola. Journal of the southern African Wildlife Management Association 4: 157-166.

Karr, J.R., Fausch, K., Angermeier, P.H., Yant, P.R. and Schlosser, I.J. 1986. Assessment biological integrity in running waters: a method and its rational. Illinois natural history survey, special publications 5. Champaign Illinois.

Kemper, N. 1999. Intermediate habitat integrity assessment for use in the rapid and intermediate assessments. First Edition. Department of Water Affairs: Pretoria, South Africa.

Kindt, R. 2021. *Useful Tree Species for Africa: Aspecies selection tool based on The Vegetation Map of Africa.* World Agroforestry Centre (ICRAF), Kenya.

Malaisse, F. 1978. High termitaria. M.J.A. Werger, editor. Biogeography and Ecology of Southern Africa. W. Junk, The Hague.

McMillan, PH. 1998. An integrated habitat assessment system (IHAS v2) for the rapid biological assessment of rivers and streams. A CSIR research project. Number ENV-P-I 98132 for the water resources management programme. CSIR. ii +44 pp.

Roux, D.J. 1999. Incorporating technologies for the monitoring and assessment of the biological indicators into the holistic resource-based water quality management approach-conceptual models and some case studies. Doctor philisophaie dissertation in zoology in the Faculty of Science, Rand Afrikaans University. South Africa.

STS (Scientific Terrestrial Services) 24-2026. 2024a. Section B: Floral Assessment as Part of the Environmental Authorisation Process for the Proposed Cassinga Electrical Power Supply Project Development from Gove to Jamba, Angola. Prepared for SRK Consulting (SA) (PTY) Ltd.

STS (Scientific Terrestrial Services) 24-2026. 2024b. Section C: Faunal Assessment as Part of the Environmental Authorisation Process for the Proposed Cassinga Poweline Supply Project in Angola. Prepared for SRK Consulting (SA) (PTY) Ltd.

SAS (Scientific Aquatic Services) 24-1055. 2024. Freshwater Ecosystem Assessment as part of the Authorisation for the proposed Cassinga Electrical Power Supply from Gove Dam to Jamba Angola. Prepared for SRK Consulting (SA) (PTY) Ltd.

Siebert, S.J. 1998. Ultramafic substrates and floristic patterns in Sekhukhune land, South Africa.

Sigler, W.F. and Sigler, J.W 1990. Recreational fisheries: management, theory and application. Institute for water quality studies, Department of Water Affairs and Forestry, Pretoria.

Stuart, S.N., R.J. Adams, and M. Jenkins. 1990. Biodiversity in sub-Saharan Africa and its islands. Occasional Papers of the IUCN Species Survival Commission No. 6.

Texeira, J. B. 1968. Angola. In I. Hedberg and O. Hedberg, editors. Conservation of vegetation in Africa south of the Sahara. Acta Phytogeographica Suecica 54:193-197.

Werger, M.J.A. and B.J. Coetzee. 1978. The Sudano-Zambezian Region. M.J.A. Werger, editor. Biogeography and Ecology of Southern Africa. W. Junk, The Hague.

White, F. 1983. The vegetation of Africa. A descriptive memoir to accompany the UNESCO/AETFAT/UNSO Vegetation Map of Africa (3 Plates, Northwestern Africa, Northeastern Africa, and Southern Africa, 1:5,000,000). UNESCO, Paris.

World Wildlife Fund. (2001b), Southern Miombo Woodlands (AT0719 [online]. URL:https://www.worldwildlife.org/ecoregions/at0701

APPENDIX A: LEGAL ARTICLES OF RELEVANCE

Ministry of Environment (MINAMB)

The Ministry of Environment (MINAMB) is the Ministerial Department responsible to formulate, conduct, supervise, evaluate, and execute the Executive's policy in the field of protection, preservation and conservation of environmental quality, pollution control, areas of conservation and enhancement of natural heritage, as well as the preservation and rational use of mineral resources.

MINAMB comprises a set of agencies and services, in particular, the National Directorate for the Prevention and Assessment of Environmental Impacts (Direcção Nacional de Prevenção e Avaliação de Impactes Ambientais (DNPAIA)), which is the service responsible for the conception and implementation of policies and strategies to prevent the incidences of environmental impacts.

Depending on the type of project being developed, the Environmental Impact Assessment (EIA) report must also be approved by the line ministry. This ensures that the EIA not only addresses the requirements of the Environmental Baseline Law and the Presidential Decree on EIA and Environmental Licensing, but also the relevant sectoral legislation.

MINAMB is responsible for the implementation of the Environment Framework Law 5/98, the approval of EIAs under the Presidential Decree 117/20 on EIA and Environmental Licensing Procedure, and all associated Regulations.

Environmental Legislation

The General Environmental Law No. 5/98

The General Environmental Law (Lei de Bases do Ambiente, LBA) was promulgated in accordance with the Constitutional Law of the Republic of Angola. The purpose of the law is to provide the framework for environmental legislation and regulations; more specifically to define the basic concepts and principles for the protection, preservation and conservation of the Environment, promotion of quality of life and the rational use of natural resources (Article 1). The LBA incorporates international declarations which Angola has ratified and defines citizens' rights and responsibilities. Further, the LBA introduces the concept of legal penalties for illegal activities that have caused damage to the environment.

Article 4 includes a number of principles guiding LBA, including a principle in respect of liability: all persons or organisations which through their actions cause harm to the environment, or the degradation, destruction or depletion of national resources, shall be held liable for the same, and shall be required to repair such damage and/or pay compensation for the damage caused.

Article 16(1) of LBA stipulates that an EIA, including public consultation (Articles 10 and 32), is mandatory for all undertakings which have an impact on the balance and wellbeing of the environment and society. Article 16(2) states that more specific legislation on EIAs will be developed by the government.

An Environmental License is issued on the basis of an EIA/EIS and a license is required before any other license required by law will be granted (Article 17(2)). According to the LBA, MINAMB is responsible for issuing environmental licenses.

Decree No.117/20 on General Regulation for Environmental Impact Assessment and Environmental Licensing Procedure

This decree establishes the standards and procedures that regulate the environmental impact assessment of public and private projects and the environmental licensing procedure for activities that, due to their nature, location or dimension, may cause significant environmental and social impact (Article 1). Applies to all public or private activities that may directly or indirectly influence environmental components (Article 2).

This decree revokes the regulations previously in force on these matters (Decree No. 51/04, of 23 July 2004, on EIA, and Decree No. 59/07, of 13 July, on Environmental Licensing), as well as all legislation that contradicts its wording. Chapter II of the decree focuses on EIA, and Chapter III establishes the provisions applicable to Environmental Licensing. Chapter IV sets out the requirements for monitoring the provisions of the decree, the fees to be paid and the fines and accessory penalties applicable to infractions.

Article 7 refers to the categorization of the activities and therefore Annexes I to V list the activities that are classified under Category A, B, C, D and E, respectively, and specifies the requirements for each one of those categories. For activities under category A, an EIA is required as well as Terms of Reference (TOR) and an Environmental Pre-Feasibility Study and Scoping (EPDA) (Article 7 and 12); Category B requires an EIA and the preparation of TOR for its elaboration; and Category C will require a Simplified Environmental Study and TOR.

At the beginning of an EIA procedure, the project owner (in this instance, Soul Rock) must register the proposed activity, under the terms of the applicable legislation in force, in the Integrated Environmental System (SIA). The Ministerial Department that oversees the proposed activity must, within 5 (five) days, after receiving the Environmental Impact Study, issue an opinion on the project to be licensed (Article 6 (3)).

Within a maximum period of 30 (thirty) days from the date of receipt of the documentation, the Ministerial Department responsible for the Environment Sector sends the respective opinion to the competent authority to license or authorize the project (Article 17). Therefore, the project that has received a negative opinion from the Minister responsible for the Environment cannot be given authorization or license (Article 18 (1)). Furthermore, the decision taken by MINAMB can be appealed under the general terms of administrative procedures and litigation (Article 18 (2)).

This decree adopts provisions concerning requirements, criteria and administrative procedures related to Environmental Licenses. In terms of Article 26, any activity requiring an EIA must apply for an Environmental License, which the MINAMB issues.

Water Law No. 6/02

Article 10 states that the objective of the State is “to ensure the use of available water for all purposes through its rational and planned use for the sustained development of the national economy” and also to “promote, frame and regulate the use of water for agricultural, livestock, industrial and hydroelectric purposes”.

The law states that private use of water cannot come before public use: “Common uses, as described in articles 21 and 22, have priority over any private use, so that private use cannot be granted or maintained to the detriment of those”.

Pursuant to Articles 22 and 24, water uses are classified as (1) common (public) use, which refers to water taken from natural sources without any administrative approval, and (2) private water use, which requires a license. Common (public) water uses have priority over private water uses. Articles 24 and 26 of the Act further clarify private uses that require and do not require a license or concession.

The supply of water to the population for human consumption and health needs has priority over other private uses (Article 33(2)).

Article 41 (1) establish that private use of water depends on licensing, in which its use does not significantly change the quality and quantity of the water and the environmental balance, in accordance with the Regulation. n.º2 of the same Article states that the following also depends on licensing: a) prospecting, pumping water and use of groundwater, except the activities described line c) of n.º1 of article 26 of this law[1]; b) deposits installation, the crops implantation or plantations and the cut down of trees on the beds and banks of the continuous or discontinuous natural currents and lakes, lagoons and marshes; and c) the extraction of inert materials, such as sand and gravel, from the beds and margins of continuous or discontinuous natural currents and from lakes, lagoons and marshes.

In terms of Article 68, Section 1 of the law, “the discharge of wastewater, wastes or other substances, and any activities that cause pollution or degradation of public water, is dependent on authorisation granted by the institution responsible for managing water resources”.

Law No. 9/04, Land Law

The present law establishes the general bases of the legal regime of the lands integrated in the original property of the State, the land rights and the general regime of transmission, constitution, exercise and extinction of these rights (Article 2).

This law shall apply to rural and urban land over which the State constitutes any of the land rights provided for the benefit of natural persons or legal persons governed by public or private law, in particular with a view to pursuing agricultural purposes, livestock, forestry, mining, industrial, commercial, housing, urban or rural building, land use planning, environmental protection and anti-erosion (Article 3(1)).

The State respects and protects the land rights held by rural communities, including those based on custom or custom (Article 9(1)). Number 2 of the same Article establishes that land in rural communities may be expropriated for the purpose of public utility and to be an object of requisition, with fair compensation.

According to Article 16(1), “The occupation, the use, and usufruct of the land is subject to the rules on environmental protection, in particular those related to the protection of the landscape, and the species of flora and fauna, preservation of the ecological balance, and the citizens’ rights to a healthy, and unpolluted environment”.

Article 19(3) states that grantable land[2] is classified into urban and rural land. Rural land is considered to be the rustic building situated outside the area bounded by a charter or the area of an urban agglomeration and intended to be used for agricultural, livestock, forestry and mining purposes (Article 19(5)).

According to Article 22(1), rural land is classified according to the purpose for which it is intended and the legal regime to which it is subject, in rural community land, to agricultural land, forest land, installation land and road land. Rural community land is land occupied by families of local rural communities for their dwelling, practice of their activity or for other purposes recognised by custom or this law and its regulations (Article 22(2)). Number 5 of the same article defines that the installation land is the land provided for the implementation of mining, industrial or agro-industrial installations, under the terms of the present law and the respective legislation applicable to mining and oil activities and industrial parks.

Community rural land are considered, according to the Article 23(1), as land used by a rural community in accordance with customary land use, including, as appropriate, complementary areas for shifting agriculture, transhumance corridors for access by livestock to water sources and pastures and crossings, whether or not subject to the easement regime, used to access water or roads or access roads to urban areas.
It is competent, for the classification of a land as land of mining and oil installation, the body that oversees the planning of the territory and the environment, upon proposal or prior opinion of the entities that oversee the respective area (Article 25(2)).

Presidential Decree No. 26/20 (National Biodiversity Strategy and Action Plan 2019-2025)

To implement the recommendations from the United Nations Convention on Biological Diversity (UNCBD, ratified by Resolution No. 23/97), the Government approved through Resolution No. 42/06 of 26 July 2006, the National Biodiversity Strategy and Action Plan (NBSAP). However, this Resolution was revoked by Presidential Decree No. 26/20 that approves the National Biodiversity Strategy and Action Plan 2019-2025, an annex of this Presidential Decree.

This strategy aims to incorporate measures for the conservation and sustainable use of biological diversity and the fair and equitable distribution of biological resources favouring all Angolans into policies and development programmes.

The NBSA) of the Republic of Angola was developed to serve as an integrated strategic framework. the conservation and sustainable use of biodiversity can be organized and coordinated to fulfil an Action Plan over seven years (2019-2025).

Presidential Decree No. 194/11 on Liability on Environmental Damage

This decree establishes strict liability for degradation of the environment. Aimed at preventing and repairing environmental damage, the decree establishes that all activities capable of causing damage to the environment (Article 3(1)) are considered liabilities and are subject to regulation under the "polluter pays" principle.

According to the decree, any entity responsible for pollution (by act of wilful misconduct or negligence) will be held responsible for cleaning up and restoring the environmental damage. Responsibility will be held for losses and damages caused to the environment by way of compensation for damages and environmental recovery measures.

Article 18º informs the right of the public to request intervention when there is concern that environmental damage has taken place. In Article 21º, the Decree also states that any individuals or legal entities which carry out activities that impose environmental risks shall have civil liability insurance.

Presidential Decree No. 261/11 on Water Quality

This decree serves as an addition to the national Water Law No. 6/02, dealing specifically with water quality. It establishes the roles within the Angolan governmental administration for overseeing water quality issues and addressing the water quality standards relating to human consumption and waste water. The decree also lists the role of water quality monitoring and the standard parameters for drinking water, surface water and emissions limits for wastewater discharge (in Annex VI).

According to item 3 of Article 1, this law also regulates the control standards of wastewater discharge in water bodies and soil to preserve the quality of the aquatic environment and protect public health.
Article 13 of Chapter III (Protection of Waters Against Pollution of Discharged Wastewater) defines that the discharge of wastewater from a treatment facility into water and soil requires a license issued by the Ministry of Environment, in which discharge standards for mitigation or prevention of damage are set.

Presidential Decree No. 82/14, approves the Regulation on the General Use of Water Resources

This decree applies to surface water and groundwater, namely watercourses, lakes, lagoons, swamps, springs, reservoirs, estuarine areas and other water bodies, without prejudice to the respective watercourse bed, river banks and surroundings.

Article 17 states that the use of water resources for private use need a specific title of use (concession or license).

Article 109(2) establishes that holders of rights to use water resources shall in general be prohibited from:
"b) Accumulate solid wastes, liquids or any substances in places and conditions that may contaminate or create danger of water resources contamination;
c) Carry out any activities that imply or may imply the degradation or pollution of the water resources;
d) Make any changes to the regime, flow, quality and use of water resources that may affect the public health, natural resources, the general environment, security and national sovereignty;
e) Carry out any activities in the water protection zones."

Article 110 establishes that proponents shall consider a 200m buffer zone as follows: "*areas of protection of water resources, the water course beds, river banks and water courses adjacent zones of up to a distance of 200 metres*".

Article 111 defines, as it is forbidden, in the protection zones of the water resources, in terms of the present Diploma and other applicable laws:
"d) Install dumps or heaps resulting from mining activity;
f) Install pipelines and reservoirs of hydrocarbons or wastewater."

Article 119 states that: "*without prejudice the provisions of this legal document, the assignment of any permits for the use of water resources, independently of its end, is subject to prior approval by the corresponding environmental impact studies, provided that that the legislation in force to require, by virtue of its nature, size or location, which may have significant environmental and social impacts*."

Sections I and II from Chapter VIII (Fees) presents the calculations related with the fees to be paid for water abstraction and wastewater discharge.

Executive Decree No. 469/15 on the slaughter prohibition in the national territory of protected species of the fauna and wild flora

This executive decree establishes a ban on the slaughtering of wild fauna and flora (protected species) on national territory, in order to avoid the illegal hunting and trafficking of valuable objects, activities which, in recent years have assumed high levels, endangering the biodiversity, under the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), assigning to the Ministry of Environment inspectors the responsibility for overseeing and define the regime of sanctions.

Joint Executive Decree No. 201/16 on Animals that may not be Hunted

The joint executive decree establishes a list of animals for which hunting is prohibited in Angola (Table 2) and a list of animals for which hunting is permitted in each season (Table 3) and respective amounts of compensation rates due to the State.

Law No. 6/17, General Framework Law on Forests and Wildlife

This law regulates the protection of forests and wildlife, with the objectives of conservation and sustainable use. Article 30(1) forbids tree felling and deforestation; article 30(2) states the need for authorization from the Department responsible for Forest and Fauna sectors for any purpose, especially agricultural, mining and public works.
According to Article 35 (EIA), projects that are likely to significantly impact forests, wildlife, and ecosystems require environmental impact assessments. This shall be emphasised by the Department responsible for Forests and Fauna sectors, collaborating with other departments.

Executive Decree No. 252/18 that approves the Red List of Species of Angola

This decree approves the Angolan Red List of Species. According to Article 2, this list consists of four categories:

a. *Category A - Extinct Species (Ex), when the species has a natural occurrence in Angola and is considered extinct or has never been seen in its habitat;*
b. *Category B - Threatened Species of Extinction (AEx), when several factors seriously threaten its existence, hindering its reproduction or natural regeneration, bringing its populations below sustainable levels;*
c. *Category C - Vulnerable Species (Vul), when human activity threatens its natural occurrence in the National Territory; and*
d. *Category D - Invasive Species, when the species does not occur naturally or is introduced into the National Territory.*

The categories of each species are updated using available scientific information every five years.

Presidential Decree No. 171/18 on Forestry Regulations

This decree regulates the sustainable management of forest resources and related ecosystems. It aims to establish standards for its conservation and rational use, taking into account these resources' environmental, social, economic and cultural dimensions.

According to Article 14(1), "*Protected trees has the status of natural monuments and are identified on the ground by a sign indicating the common and scientific names of the species and classification*". Article 14(2) states that "*It is prohibited to cut or damage protected trees*".

APPENDIX B: FLORAL, FAUNAL FRESHWATER MONITORING PLAN

All monitoring methods, data, and discussions are presented within the monitoring section in the following reports:

Section C: Faunal Assessment for the Proposed Cassinga Powerline Supply Project In Angola (STS 24-2026)

Section B: Floral Assessment for the Proposed Cassinga Powerline Supply Project In Angola (STS 24-2026)

Freshwater Ecosystem Assessment as Part of the Environmental Authorisation Process for the Proposed Cassinga Electrical Power Supply from Gove Dam to Jamba, Angola. (SAS 24-1055)

Appendix L2: Avifauna Monitoring Programme

SCIENTIFIC TERRESTRIAL SERVICES

Avifaunal Monitoring Plan

FOR THE PROPOSED CASSINGA POWERLINE SUPPLY PROJECT IN ANGOLA

Prepared for:	SRK Consultants
Report authors:	J. Potgieter (Pr. Sci. Nat)
Report reviewers:	C. Hooton
Report Reference:	STS 24-2026
Date:	September 2024

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **i**
LIST OF TABLES ..... **ii**
LIST OF FIGURES ..... **ii**
GLOSSARY OF TERMS ..... **iii**
LIST OF ACRONYMS ..... **v**
1 INTRODUCTION **1**
1.1 Project Location 1
1.2. Scope of Work 1
1.3. Assumptions and Limitations 4
1.4. Information Sources 4
2 AVIFAUNAL SCC ASSOCIATED WITH THE STUDY AREA **5**
3 METHODOLOGIES FOR THE MONITORING **7**
3.1 Project activities posing potential impacts 7
3.2 Desktop and previous assessment 8
3.3 Field assessment for monitoring 8
3.4 Equipment 9
4 MONITORING PLAN **9**
5 REFERENCES **13**

LIST OF TABLES

Table 1: Field assessment results pertaining to avifaunal species within the study area with their POC and red list status. 5
Table 2 Migratory Avifauna that may be associated with the study area. 7
Table 3. High-level avifaunal monitoring plan for the – Pre-Construction, Construction, Operational and Decommissioning Phases. 11

LIST OF FIGURES

Figure 1: Digital satellite imagery depicting the location of the study area associated with the proposed Cassinga OHL. 2
Figure 2: Topography map depicting the location of the study area associated with the proposed Cassinga OHL. 3

GLOSSARY OF TERMS

Biological diversity or Biodiversity (as per the definition in NEMBA)	The variability among living organisms from all sources including, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part and includes diversity within species, between species, and of ecosystems.
Critically Endangered (CR) (IUCN[1] Red List category)	**Applied to both species/taxa and ecosystems**: A species is CR when the best available evidence indicates that it meets at least one of the five IUCN criteria for CR, indicating that the species is facing an extremely high risk of extinction. CR ecosystem types are at an extremely high risk of collapse. Most of the ecosystem type has been severely or moderately modified from its natural state. The ecosystem type is likely to have lost much of its natural structure and functioning, and species associated with the ecosystem may have been lost. CR species are those considered to be at extremely high risk of extinction.
Degradation	The many human-caused processes that drive the decline or loss in biodiversity, ecosystem functions or ecosystem services in any terrestrial and associated aquatic ecosystems.
Disturbance	A temporal change, either regular or irregular (uncertain), in the environmental conditions that can trigger population fluctuations and secondary succession. Disturbance is an important driver of biological invasions.
Driver (ecological)	A driver is any natural or human-induced factor that directly or indirectly causes a change in ecosystem. A direct driver clearly influences ecosystem processes, where indirect driver influences ecosystem processes through altering one or more direct drivers.
Ecological processes	The functions and processes that operate to maintain and generate biodiversity. To include ecological processes in a biodiversity plan, their spatial components need to be identified and mapped.
Endangered (EN) (IUCN Red List category)	**Applied to both species/taxa and ecosystems**: A species is EN when the best available evidence indicates that it meets at least one of the five IUCN criteria for EN, indicating that the species is facing a very high risk of extinction. EN ecosystem types are at a very high risk of collapse. EN species are those considered to be at very high risk of extinction.
Endemic species	Species that are only found within a pre-defined area. There can therefore be sub-continental (e.g., southern Africa), national (South Africa), provincial, regional, or even within a particular mountain range.
Faunal Class	In biological classification, class (Latin: classis) is a taxonomic rank, as well as a taxonomic unit. Class specifically refers to major groups, namely: mammals, avifauna (birds), reptiles and invertebrates.
Ground-truth	Ground truth is a term used in various fields to refer to information provided by direct observation (i.e., empirical evidence) as opposed to information provided by inference.
Habitat	A place where a species or ecological community naturally occurs.
Habitat loss	Conversion of natural habitat in an ecosystem to a land use or land cover class that results in irreversible change in the composition, structure and functional characteristics of the ecosystem concerned.
Least Threatened	Least threatened ecosystems are still largely intact.
Near Threatened (according to IUCN)	Close to being at high risk of extinction in the near future.
Red Data Listed (RDL) species	According to the Red List of South African plants (http://redlist.sanbi.org/) and the International Union for Conservation of Nature (IUCN), organisms that fall into the Extinct in the Wild (EW), Critically Endangered (CR), Endangered (EN), Vulnerable (VU) categories of ecological status.
Species of Conservation Concern (SCC)	The term SCC in the context of this report refers to all RDL and IUCN listed threatened species as well as provincially and nationally protected species of relevance to the project.

[1] International Union for Conservation of Nature (IUCN)

Threatened species	A species that has been classified as CR, EN or VU, based on a conservation assessment (Red List), using a standard set of criteria developed by the IUCN for determining the likelihood of a species becoming extinct. A threatened species faces a high risk of extinction in the near future.
Vulnerable (VU) (Red List category)	**Applied to both species/taxa and ecosystems**: A species is VU when the best available evidence indicates that it meets at least one of the five IUCN criteria for VU, indicating that the species is facing a high risk of extinction. An ecosystem type is VU when the best available evidence indicates that it meets any of the criteria A to E for VU and is then considered to be at a high risk of collapse.

LIST OF ACRONYMS

CR	Critically Endangered
CVB	Channelled Valley Bottom
EAP	Environmental Assessment Practitioner
EOO	Extent of occurrence
ESIA	Environmental and Social Impact Assessment
EIS	Ecological Importance and Sensitivity
EN	Endangered
ESMP	Environmental and Social Management Plan
GPS	Global Positioning System
IEM	Integrated Environmental Management
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Areas
km	kilometres
LC	Least Concern
NA	Not Applicable
NT	Near Threatened
OHL	Overhead Line
POC	Probability of Occurrence
RDL	Red Data listed
SCC	Species of Conservation Concern
STS	Scientific Terrestrial Services [Pty] Ltd
VU	Vulnerable

1 INTRODUCTION

Scientific Terrestrial Services (STS) was appointed to develop a high-level avifaunal monitoring plan as part of the Environmental and Social Management Plan (ESMP) for the proposed Cassinga Overhead Powerline (OHL) and associated substations, hereafter referred to as the "study area".

Long-term monitoring offers a comprehensive view of ecology, environmental changes, and natural resource management (Lindenmayer et al., 2021). This monitoring will help determine the extent of these changes and if and how they should be managed if the effects are significant.

1.1 Project Location

The study area is located south of the centre of Angola, namely, in the provinces of Huila and Huambo (Figure 1 and 2). The Project powerline extends for about 170 km, crossing six municipalities which include Jamba, Kuvango, Dongo, Galangue, Chipindo and Kalima.

1.2. Scope of Work

The objective of this plan:

- To provide a list of potential and confirmed avifaunal SCCs which might be impacted through this project;
- To indicate the potential impacts and risks that the proposed OHL and substations will pose to avifaunal species and their habitat.
- To provide a high-level avifaunal monitoring plan which will include:
  - Potential impacts on avifauna through different phases of the project;
  - Proposed mitigation measures or management actions to overcome impacts to avifauna; and
  - High-level monitoring methodology including suggested frequencies;

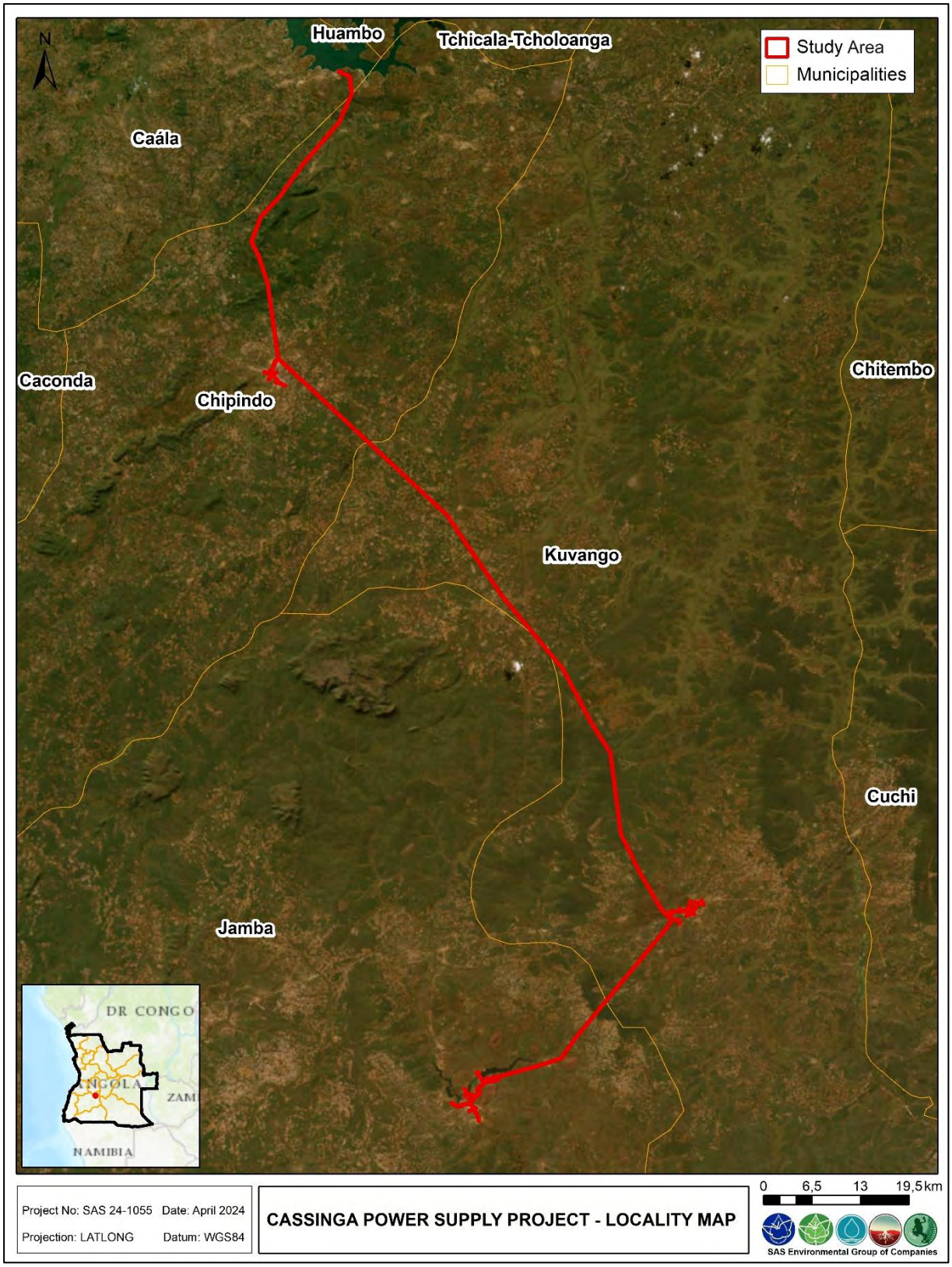


Figure 1: Digital satellite imagery depicting the location of the study area associated with the proposed Cassinga OHL.

Figure 2: Topography map depicting the location of the study area associated with the proposed Cassinga OHL.

1.3. Assumptions and Limitations

The following assumptions and limitations apply to this report:

- This is only a high-level monitoring plan and a more in-depth/detailed plan would be required once the project commences;
- Some areas of the OHL where monitoring would be recommended might be inaccessible;
- The suggested monthly monitoring for the first year after construction might pose a challenge due to the length of the OHL and poor road conditions to access it. The feasibility of monthly monitoring should be based on the available access after construction has been completed; and
- The frequency of ongoing monitoring beyond the first year of operation must be determined based on the outcomes of the initial monthly monitoring regime.

1.4. Information Sources

For the purposes of this study, various online databases were consulted in order to gather information in support of the initial site assessment. It is noted that species data and occurrences for Angola are not as comprehensive, however, the available data is still considered sufficient for the purpose of the proposed OHL.

Databases consulted for the purpose of this study include:

- The IUCN Red List for Angola;
- iNaturalist online database records;
- Previous studies undertaken by STS within Angola; and
- Angola red list for animals (2018)

2 AVIFAUNAL SCC ASSOCIATED WITH THE STUDY AREA

Table 1 presents the avifaunal SCC associated with the Cassinga OHL that may potentially be impacted upon through the proposed project.

Table 1: Field assessment results pertaining to avifaunal species within the study area with their POC and red list status.

Species	Discussion	Angolan Status	IUCN Status	POC
Terathopius ecaudatus (Bateleur)	The bateleur is a common to fairly common resident who prefers partially open savanna country and woodland within Sub-Saharan Africa. During breeding, it tends to require closed-canopy savannah-woodland habitats, including *Vachellia* savanna as well as mopane and miombo woodlands. Bateleurs forage almost entirely based on opportunity and have no particular specialization on any particular prey type, spending extended periods in flight and travelling extensive distances whilst foraging.	NA	EN	**Confirmed**
Gyps africanus (White-backed Vulture)	White-backed vultures are obligate scavengers with a high level of specialization on carrion. Their primary food sources are the carcasses of large, grazing animals found the wooded savannahs where it lives. There is an inverse relationship between the amount of human activity (farming, ranching, etc.) and the amount of vulture nesting activity areas. The study area provides limited food (Carrion) resources for this species, with current observation records only being in Bicuar National Park to the south west of the study area. Flights over the OHL will likely be on foraging forays where they will be flying high and will avoid any collision risk with the OHL.	NA	CR	Medium
Aquila rapax (Tawny Eagle)	Tawny eagles occur in fairly open country at varied elevations but usually live in drier areas, typically inhabiting wooded savanna such as dry Acacia savanna and semi-desert to desert areas, though within the miombo woodland, the tawny eagle tends to be scarcer. A single individual has been recorded in Bicuar National Park to the south west of the study area in 2023, however no other record for the area of the study area is known.	NA	VU	Medium
Bucorvus leadbeateri (Southern Ground Hornbill)	Southern ground hornbills are carnivorous and hunt mostly on the ground. Their food ranges from insects to small vertebrates. The bird's classification is heavily tied to its slow reproductive rates. Habitat loss, changes due to the agriculture, deforestation, electrocution from power lines, accidental poisoning, and persecution are the major factors that affect their populations.	NA	VU	High
Trigonoceps occipitalis (White-headed Vulture)	The white-headed vulture is widely spread throughout and prefers mixed, dry woodland at low altitudes, generally avoiding human habitation and is considered to be restricted to protected areas. This species was recorded during the IESC site visit in the AgriCuvango farm (approximately 6.5 km east of the OHL). This species is not commonly recorded within Angola. As the study area is unlikely to provide suitable sources of carrion (due to the low number of mammal species and predators), it is unlikely that this individual is resident to the area, and was likely observed transitioning between more suitable, protected areas. Given that individuals will be flying in the area, it is imperative that suitable mitigation measures be taken to minimise collision risks. It is considered unlikely however that individuals will be nesting within or adjacent the OHL.	NA	CR	**Confirmed**
Neotis denhami (Denham's Bustard)	The Denham's bustard occupies grassland habitats. Mainly they are distributed in savanna and may be found at any elevation up to 3,000 m (9,800 ft). They can be found in a considerable range of secondary habitats including dense shrubland, light woodland, farmland, dried marsh and arid plains. Hunting is the primary cause of declines across the Sahel and West Africa, but in eastern and southern Africa, conversion of grassland to agriculture is a greater threat.	NA	NT	Medium
Aquila nipalensis (Steppe Eagle)	Although the breeding range is rather extensive, the steppe eagle is essentially confined to nesting in only four large nations: Russia, Kazakhstan, Mongolia and China.	NA	EN	Medium
Sagittarius serpentarius (Secretarybird)	The Secretarybird is endemic to sub-Saharan Africa and is generally non-migratory, though it may be locally nomadic as it follows rainfall and the resulting abundance of prey. Its range extends from Senegal to Somalia and south to Western Cape, South Africa. Foraging opportunities do exist though breeding due to increase anthropogenic presence is unlikely.	NA	EN	High

Torgos tracheliotos (Lappet-faced Vulture)	This vulture prefers to live in dry savannah, thornbush, arid plains, deserts with scattered trees in wadis, open mountain slopes. They are usually found in undisturbed open country with a scattering of trees and apparently prefer areas with minimal grass cover. While foraging, they can wander into denser habitats and even into human inhabited areas, especially if drawn to road kills. Foraging in the study area is considered to be very limited for this species due to the lack of larger mammal species.	NA	EN	Medium
Necrosyrtes monachus (Hooded vulture)	Although hooded vultures have relatively small home ranges, they are widely distributed across Africa. It typically scavenges on carcasses of wildlife and domestic animals. According to the IUCN this species is considered to be extinct from the region in which the study area occurs. Dispersing individuals may however pass near the study area.	NA	CR	Medium
Gyps coprotheres (Cape Vulture)	It is a long-lived (Oatley et al. 1998) carrion-feeder specialising on large carcasses. It flies long distances over open country, although usually found near steep terrain, where it breeds and roosts on cliffs (Mundy et al. 1992). It was shown to display a preference for protected areas and woody vegetation for foraging (Martens et al. 2018).	NA	VU	Medium
Egretta vinaceigula (Slaty Egret)	It inhabits river floodplains, marshes, and temporary shallow wetlands, preferring areas where water levels are receding from their seasonal peak (Hancock et al. 1978, Hancock and Kushlan 1984, Kushlan and Hancock 2005). This species is mostly sedentary (del Hoyo et al. 1992), but moves seasonally within wetlands, apparently in response to rains (Hancock et al. 2006a), which cause seasonal variation in habitat conditions (Tyler 2005). IUCN records indicate species in Angola are non-breeding.	NA	VU	Medium
Falco vespertinus (Red-footed Falcon)	The species breeds in open lowlands with trees and plenty of insects and small vertebrates, on which it feeds, including open woodland, agricultural areas with shelterbelts and, in the north-east, boggy areas and taiga edge. The species is migratory, with birds travelling great distances to their wintering grounds in southern Africa. Although not expected to be resident or breed within the study area, individuals may pass through the study area whilst migrating.	NA	VU	Medium
Polemaetus bellicosus (Martial Eagle)	It inhabits open woodland, wooded savanna, bushy grassland, thornbush and, in southern Africa, more open country and even subdesert, from sea level to 3,000 m but mainly below 1,500 m (Ferguson-Lees and Christie 2001). The main prey is sizeable mammals, birds and reptiles. The continued expansion of agricultural areas within and adjacent the study area will likely limit the occurrence of this species, as they are known to be largely absent from agricultural dominated areas.	NA	EN	Medium
Mirafra angolensis (Angola Lark)	The range of the Angola lark is sizable, and is found in Angola, Democratic Republic of Congo, Tanzania and Zambia. Its natural habitats are subtropical or tropical dry, or seasonally wet, lowland grassland.	Category C (VU)	LC	Medium
Bradornis boehmi (Böhm's Flycatcher)	Its natural habitat is subtropical or tropical dry forests, namely the miombo woodlands where it actively forages for prey items (insects).	Category C (VU)	LC	Medium

During the site assessments, the avifaunal SCC *Terathopius ecaudatus* (Bateleur, EN) was observed flying overhead between Cuvango and Chipindo. This species is known to forage over extensive areas in search of prey items/carrion. The large trees in the miombo woodland habitat may provide suitable nesting opportunities for this species, which will need to be taken into consideration during construction / vegetation clearance activities. A follow up site visit by the IESC resulted in an observation of a single, migrant non-breeding *Trigonoceps occipitalis* (White-headed Vulture, CR) individual. Furthermore, nine migratory avifaunal species (Table 2) may be associated with the study area, however none of these species were observed within the study area or adjacent sites. It is further noted that iNaturalist does not have any records at present for these species in or adjacent to the study area, whilst many of these species have no records for Angola, or only peripheral records.

Table 2 Migratory Avifauna that may be associated with the study area.

Scientific name	Common name	Red List Status
Dendrocygna bicolor	Fulvous Whistling-duck	LC
Zapornia pusilla	Baillon's Crake	LC
Neotis denhami	Denham's Bustard	LC
Aquila nipalensis	Steppe Eagle	EN
Hieraaetus pennatus	Booted Eagle	LC
Circus aeruginosus	Western Marsh-harrier	LC
Milvus migrans	Black Kite	LC
Buteo buteo	Eurasian Buzzard	LC
Falco naumanni	Lesser Kestrel	LC

LC = Least concerned, EN = Endangered

The proposed OHL may pose a threat to avifaunal species in terms of potential collisions and electrocutions. As such, it is important that mitigation measures be implemented to manage these risks, and ensure the safety of avifauna as far as possible. All mitigation measures stipulated in the biodiversity reports, as well as any new mitigation measures as required based on the outcome of the avifaunal monitoring, must be implemented.

3 METHODOLOGIES FOR THE MONITORING

3.1 Project activities posing potential impacts

The clearance of vegetation as part of the construction process will impact avifaunal species and lead to their displacement from the footprint areas. The increased presence of people and equipment at the construction sites and laydown areas will likely further result in species displacement as avifauna will likely move away from high usage. Once operational the OHL and associated structures, support cable etc will pose a collision risk to avifauna, notably in the early mornings, late evenings and at night. Pylon structures may further be utilised by

avifauna for roosting/nesting, placing them at increased risks of electrocution whilst large nests pose a fire hazard to electrical infrastructure.

3.2 Desktop and previous assessment

Initial field assessment took place during the wet season (6th – 10th April 2024) and then again during the dry season (15th -17th July 2024) to conduct faunal and floral ecological assessments as part of the Cassinga OHL project. This study, STS 24-2026, September 2024, forms the background for the monitoring plan. Based on the results of the fieldwork, it is recommended that focus be placed on points where the OHL intersects with Freshwater Habitats and the Miombo Woodland Habitat, as these areas are expected to have a higher abundance of avifauna and likely to have increased flight paths. Monitoring activities within the Secondary Miombo Woodland is also required, but the number of monitoring points / monitoring time may not need to be as intensive as the other habitats. This however must be ultimately determined during the initial monitoring exercise making use of data collected from the OHL walkdown. The monitoring plan can then be updated and adapted to conditions and species observed.

3.3 Field assessment for monitoring

Monitoring and field assessments should take place before, during and after the proposed project by a suitably or qualified person as part of the project.

- Planning phase:
    - Monitor the footprint areas where vegetation clearing will happen for any raptor nests (Malan 2009). Should any raptor nests be found within the direct footprint or OHL corridor, it must be ascertained if the nest can be avoided or if it will need to be destroyed; and
    - Where avoidance is possible, construction of the OHL must be limited to the non-breeding periods to ensure that active nests are not disturbed.
- Construction phase:
    - Continuous monitoring of known and new raptor nests along the OHL route must take place;
    - Monitor freshwater crossing points and noting which are the high usage areas; and
    - Species counts/monitoring where OHL will intersect with Freshwater Habitat, the Secondary Miombo Woodland and the Miombo Woodland Habitat must take place.
- Operational phase:

- Species counts/monitoring where OHL will intersect with Freshwater Habitat and/or along key areas of the Secondary Miombo and Miombo Woodland Habitat must continue identified during the pre-construction and construction monitoring;
- Monitor known and new raptor nests;
- Monitor and note any bird carcasses found. Try ascertain, if possible, the cause of death was from collisions or electrocutions; and
- Check if bird flappers on the OHL are intact and operational.

3.4 Equipment

The following equipment must be used for the Avifaunal Survey:

- Binoculars suitable for bird observations;
- A GPS with monitoring points marked;
- A camera suitable for bird photography;
- Bird field guide and/or app;
- Monitoring datasheet; and
- Notebook and pen.

4 MONITORING PLAN

The focus of avifaunal monitoring for the proposed OHL project will be where the OHL intersects habitats of increased importance for avifauna (high-risk areas) as previously mentioned. The avifaunal monitoring plan will focus on species counts, nesting sites (notably raptors), bird fatalities and the functioning of the bird flappers. The monitoring plan is intended to be simple to complete, using minimal equipment to make it easily repeatable over the years and not reliant on a single person conducting the monitoring indefinitely. The monitoring is suggested to take place on a monthly basis during the construction phase as well as for the first year of the operational phase. Following the 1st year of operational monitoring, monitoring events can be reduced to quarterly or bi-annually depending on the initial monitoring results. Following the 2nd and 3rd year of monitoring, new recommendations can be made by the specialist in terms of suitable monitoring frequency based on the data collected. Prior to the start of the construction phase, it is recommended that a suitable specialist takes part in the final route walkdown in order to identify any nests which may be at risk.

Data comparisons from the initial monitoring period must be used to determine the frequency of ongoing monitoring activities, in order to determine if such can be reduces to quarterly or bi-annual monitoring, or if monthly monitoring needs to continue for another specified period

of time. Access to some monitoring sites might be challenging due to the lack of access and / or very bad roads and as such monitoring points may need to be adjusted for over time. This should be considered an adaptive monitoring plan and must be re-evaluated every 3 months by the specialist conducting the monitoring to determine if it should be adjusted in any way based on new available information.

Table 3 below contains the high-level avifaunal monitoring plan.

Table 3. High-level avifaunal monitoring plan for the – Pre-Construction, Construction, Operational and Decommissioning Phases.

Pre - Construction Phase					
Impact	**Management Outcome**	**Management Actions**	**Monitoring**		
			Methods	**Frequency**	**Responsibility**
Destruction/ disturbance of raptor nests	Prevent unnecessary displacement of raptors and destruction or abandoning of nests leading to mortality of chicks.	➢ Prior to the construction phase, a walkdown must be undertaken; ➢ During the walkdown and micro-sighting of the footprints, if any raptor nests are observed, the locations need to be duly recorded; and ➢ Should any raptors, notably *Terathopius ecaudatus* (Bateleur eagle), be found nesting in the proposed route, or within 500m of the proposed route, construction plans need to be duly updated to ensure that these areas are avoided during the breeding season. Active nests are not to be disturbed during breeding season and should be given a 500m exclusion buffer until after the breeding season. Construction/vegetation clearance activities must continue in a different locality until such a time that it is feasible to return to the area (post-breeding);	➢ Walk-through by specialist. ➢ Actively search for raptor nests. ➢ Mark any nests found with GPS. ➢ Identify the species the nest belong to. ➢ If possible, check if the nest has eggs or chicks without disturbing the active nest. ➢ Record active / inactive nests for future comparison.	Once off, no longer than a month prior to the commencement of construction.	Avifaunal specialist
Construction Phase					
Displacement of avifaunal species	Prevent unnecessary displacement of avifauna by ensuring that contractors are aware of the requirements of the Environmental Management Programme (EMPr.)	➢ Should any raptors, notably *Terathopius ecaudatus* (Bateleur eagle), be found nesting in a large tree along/adjacent to the route, all activities in the vicinity are to be stopped until the fledgling has left the nest. Active nests are not to be disturbed during breeding season and should be given a 500m exclusion buffer until after the breeding season. Construction/vegetation clearance activities must continue at a different locality until such a time that it is feasible to return to the area (post breeding); and ➢ The EMPr must detail how construction activities must be conducted and the timing of such activities according to a scheduled construction plan. All contractors are to adhere to the EMPr and should apply good environmental practice during construction.	➢ Report and record any noncompliance to nest avoidance/impacts. ➢ Record avifaunal species observed within monitoring points. ➢ Record active and non-active nests previously identified, as well as any new nests that are observed. ➢ Record observed flight paths of large avifauna, including estimated height of flight paths. ➢ Record active / inactive nests.	Monthly for as long as the construction phase lasts.	Avifaunal specialist / suitably qualified Enviromental Control Officer (ECO)
Mortality due to collision with the overhead powerline		➢ Where the OHL traverses freshwater habitats, bird-flappers / diverters should be installed on the powerline to minimize bird strike risks as these areas are considered to be high traffic/flights paths. ➢ Bird flappers / diverters should also be fitted to the OHL where it traverses the Secondary Miombo and Miombo Woodland; ➢ All pylons / electrical infrastructure must be fitted with anti-perching/nesting devices to deter species from using these structures for nest construction/perching – notably larger raptors.	➢ Assess bird flapper installations for functionality and that they are in a working order. ➢ Record any bird carcasses observed around newly erected pylons / powerlines.	Monthly till construction is complete.	Avifaunal specialist / suitably qualified ECO
Operational Phase					
Mortality due to collision with the overhead powerline	Reduction of avian electrocution and collision with OHL mortality.	➢ Bird-flappers / diverters are to be replaced as and when needed should they become dislodged from the powerline. These devices should be part of the regular inspection activities undertaken for the OHL;	➢ Record avifaunal species observed within monitoring points. ➢ Record avifaunal fatalities due to collisions or electrocutions.	For the first year, this should happen monthly.	Avifaunal specialist / suitably qualified ECO

Mortality of avifauna due to electrocution on the collector substation infrastructure		➢ Ensure the insulated covering on the support / tension cables is intact to minimize the risk of electrocution; ➢ Inspect and maintain anti-perching/nesting devices fitted; ➢ Monitor the electrocution mortality within the collector substation or on pylons; ➢ Monitor bird fatalities due to collisions with OHL.	➢ Inspection of bird flappers and insulated covers. ➢ Inspect anti-nesting/perching devices installed. ➢ Note flight paths and height of large bird species to better inform mitigation measures.	Thereafter depending on the outcome of the results quarterly or bi-annually.	
Decommissioning Phase					
Displacement due to disturbance	Prevent unnecessary displacement of avifauna by ensuring that contractors are aware of the requirements of the EMPr.	➢ Should any decommissioning activities be located near to known raptor nests, such activities are to only take place during none breeding periods to ensure nesting activities are not disturbed; ➢ Make sure to check for bird nests on the poles and towers of the OHL before decommissioning it. Nests observed must be destroyed just after the breeding season.	➢ Monitor known nesting sites around the OHL to ensure decommissioning activities do not disturb these species. ➢ All decommissioning activities should take place out of the breeding season. ➢ Record any nests that need located on pylons that need to be destroyed. ➢ Record active / inactive nests.	Monthly for as long as the decommissioning phase lasts.	Avifaunal specialist / suitably qualified ECO

5 REFERENCES

Barnes, K.N. (Ed). 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho, and Swaziland. Birdlife South Africa, Johannesburg, RSA.

Bird Life South Africa (2017). BEST PRACTICE GUIDELINES - Birds & Solar Energy. https://www.birdlife.org.za/wp-content/uploads/2018/07/BLSA-Birds-Solar-Energy-2017.pdf.

Le Maitre DC, O'Farrell PJ and Reyers B. 2007 Ecosystems services in South Africa: a research theme that can engage environmental, economic and social scientists in the development of sustainability science? South African Journal of Science 103, September/October 2007.

Lindenmayer, D.B., Liens, G.E., Anderson, A., Bowman, D., Bull, C.M., Burns, E., Dickman, C.R., Hoffman, A.A., Keith, D.A., Liddell, M.J., Lowe, A.J., Metcalfe, D.J., Phinn, S.R., Russell Smith, J., Thurgate, N., Wardle, G.M (2021). Value of long-term ecological studies. Austral Ecology. Vol 37 issue 7.

Malan, G. 2009. First Edition. Raptor survey and monitoring – a field guide for African birds of prey. Pretoria , RSA.

Sinclair, I., Hockey, P. & Tarboton, W. 2002. Third Edition. Sasol Birds of Southern Africa. Struik Publishers, Cape Town, RSA.

Appendix M: Waste Management Plan (WMP)

WASTE MANAGEMENT PLAN

CASSINGA ELECTRIC POWER SUPPLY PROJECT, Huíla, Angola

September 2024

Page intentionally left blank

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 Context 1
1.2 Scope and purpose of this WMP 3
1.3 Objectives of WMP 3
1.4 Report structure 4
1.5 WMP update 4
2 LEGAL AND INSTITUTIONAL FRAMEWORK 5
2.1 Introduction 5
2.2 Institutional Framework - National 5
2.2.1 Ministry of Environment 5
2.2.2 National Directorate of Environmental Technologies 5
2.2.3 Ministry of Energy and Water 6
2.2.4 National Waste Agency 6
2.3 National Legal Framework 6
2.3.1 Waste Management and Sanitation 6
2.3.2 Occupational, Health and Safety Legislation 9
2.4 International Standards, Guidelines and Conventions 9
2.4.1 International Finance Corporation Performance Standards 9
2.4.2 Equator Principles 10
2.4.3 Environmental, Health and Safety Guidelines 10
2.4.4 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 11
2.4.5 Stockholm Convention on Persistent Organic Pollutants (POPs) 11
3 STATUS OF WASTE MANAGEMENT IN ANGOLA 12
4 BRIEF PROJECT DESCRIPTION 13
4.1 Project Location 13
4.2 Project Background 13
4.3 Objectives 15
4.4 Proposed Infrastructure 15

4.4.1 Transmission Lines and Towers 15
4.4.2 New Substations 16
4.4.3 Overhead Line Infrastructure 16
4.4.4 Electrification of community homes and public lighting 16
4.5 Construction camps 16
4.6 Timing 17
4.7 Closure and Rehabilitation 17
4.8 Water Consumption 17
4.9 Energy Consumption 18
4.10 Air emissions 18
4.11 Noise 19
4.12 Waste Generation and Disposal 20
4.13 Wastewater Generation 20
5 RESPONSIBILITIES 21
5.1 General Manager 21
5.2 Health, Safety and Environment Manager 21
5.3 Collective Responsibility 21
5.4 Contractors and Suppliers 21
5.5 Waste management companies 22
6 WASTE MANAGEMENT PLAN 23
6.1 Construction phase 23
6.1.1 Typical Waste Generated During Construction 23
6.1.2 Wastewater 24
6.1.3 Non-Hazardous Waste Generated by the Activity 25
6.1.4 Hazardous Waste Generated by the Activity 26
6.2 Operation phase 27
6.2.1 Typical Waste Categories Generated During Operation 27
6.2.2 Wastewater 28
6.2.3 Non-hazardous waste 28
6.2.4 Hazardous waste 29

6.3 Waste Management Procedures 30
6.3.1 Generic waste management procedures 30
6.3.2 Implementation of the Prevent, Reduce, Reuse and Recover principle 31
6.3.3 Handling and segregating waste 31
6.3.4 On-site Collection, Packaging, Labelling, Transport and Storage of Waste 31
6.3.5 Non-Hazardous Waste Management 32
6.3.6 Hazardous Waste Management 33
6.3.7 Waste Transport and Disposal 33
7 HEALTH, SAFETY AND RISK MANAGEMENT 34
7.1 Pesticides 34
7.2 General Safety Practices 34
7.3 OHS Training 35
8 MONITORING AND REPORTING 37
9 REFERENCES 38
10 APPENDICES 1
Appendix A - Annual Management Report – Model 1
Appendix B - Waste Manifest Template 2
Appendix C - MINAMB Certification of the consultancy company 4
Appendix D - Official Gazette of RNT Company Constitution 5
Appendix E - Project proponent/Contractor's Quality and Environmental Policy 6
Appendix F – Justification of the non-existance of the contract with the Waste Management Company 7
Appendix G - Construction camps 8

LIST OF FIGURES

Figure 1-1: Location of the proposed 220 kV OHL and the towns it will supply with electricity. 2
Figure 3-1: Location of the proposed 220 kV OHL and the towns it will supply with electricity. 14
Figure 3-2: Summary of the process of electricity supply. 15

LIST OF TABLES

Table 3-1: Anticipated water requirements. 17

Table 3-2: Energy users. 18

Table 3-3: Anticipated air emissions and mitigation strategies. 19

Table 3-4: Anticipated noise sources. 20

Table 5-1: Typical types of waste generated during construction phase. 24

Table 5-2: Potential wastewater sources – construction phase. 25

Table 5-3: Preliminary list of non-hazardous waste produced during the construction phase with estimation of the waste. 26

Table 5-4: Preliminary list of hazardous waste produced during the construction phase. 26

Table 5-5: Typical categories of waste generated by the activity. 28

Table 5-6: Anticipated wastewater sources and mitigation strategies. 28

Table 5-7: Preliminary list of non-hazardous/general waste generated during the operation phase. 28

Table 5-8: Preliminary list of hazardous waste generated during the operation phase. 29

Table 6-1: General safety practices. 35

ACRONYMS AND ABBREVIATIONS

Abbreviations	Description
ANR	National Waste Agency
CDW	Construction and Demolition Waste (CDW)
DNTA	National Directorate for the Environmental Technologies
DP/PD	Presidential Decree
EAP	Environmental Assessment Practitioner
ESIA	Environmental and Social Impact Assessment
EHSG	General Environment, Health and Safety Guidelines
HSE	Health, Safety and Environment
IFC	International Finance Corporation
LAR	Lista Angolana de Resíduos / Angolan Wastes List
MINAMB	Ministry of the Environment
MINEA	Ministry of Energy and Water
MSDS	Material Safety Data Sheets
PCB	Polychlorinated Biphenyls [PCB]
PESGRU	Strategic Plan for Urban Waste Management
POP	Persistent Organic Pollutants
PPE	Personal Protective Equipment
PS	Performance Standards / Padrões de Desempenho
SIA	Sistema Integrado de Ambiente / Environmental Integrated System
SRK	SRK Consulting (South Africa) Pty Ltd
SF6	Sulfur hexafluoride [SF6]
ToR	Terms of Reference
QHSE	Quality, Health, Safety and Environment
WBG	World Bank Group
WMP	Waste Management Plan

GLOSSARY

Term	Definition
Collection	Collecting, sorting and/or mixing waste for transport to a waste treatment or disposal facility
Deposition	Final destination of waste that is not recovered or disposed of
Environment	Encompasses the physical, chemical, and biological systems, along with their interrelationships, as well as the economic, social, and cultural factors that have either direct or indirect impacts, whether immediate or mediating, on living organisms and the quality of human life.

Term	Definition
Environmental Audit	It is the subsequent assessment of the environmental impacts of the Project, with reference to environmental quality standards, as well as the forecasts, management measures and recommendations resulting from the Environmental Impact Assessment procedure.
Environmental impact	It is any change in the environment, for better or worse, especially with an effect on air, water, soil and subsoil, biodiversity, people's health and cultural heritage, resulting directly or indirectly from human activities.
Hazardous Waste	Waste that contains one or more hazardous characteristics because it is flammable, explosive, corrosive, toxic, infectious or radioactive, or has any other characteristic that constitutes a danger to human health and other living beings and to the quality of the environment, as well as those that are approved or considered as such by the international treaties and conventions that Angola has ratified.
Health care wastes	Health care waste, means waste produced in health care facilities, including that resulting from human and veterinary diagnosis, treatment and research activities.
Holder	A waste producer is an individual or legal entity that has waste in its possession.
Landfill	Disposal installations used for the controlled disposal of waste, above or below the surface of the ground.
Monitoring	The process of systematically observing and collecting data on the state of the environment or the environmental effects of a given project and periodically describing these effects through reports under the responsibility of the applicant, with the aim of enabling the effectiveness of the measures provided for in the EIA procedure to be assessed in order to avoid, minimise or compensate for the significant environmental impacts resulting from the implementation of the respective project.
Operator	Public or private entities that carry out any of the operations related to waste management, whether or not they produce waste.
Pollution	It is the deposit in the environment of substances or waste in any form, as well as the emission of light, sound and other forms of energy, in such a way and in such quantity as to adversely affect it.
Risk management	Systematic identification of hazards, evaluation of the risks associated with the identified hazards and subsequent development of control measures to manage them, related to each of the identified hazards.
Training	The acquisition of knowledge, skills and techniques through education, instruction and discipline.
Treatment	Mechanical, physical, thermal, chemical or biological processes, including separation, which modify the characteristics of waste in order to reduce its volume or harmfulness and facilitate its disposal.
Waste	Substances or objects which the holder disposes of, or has the intention or legal obligation to dispose of, that contain hazardous characteristics because they are flammable, explosive, corrosive, toxic, infectious or radioactive, or have any other characteristic that constitutes a danger to the life or health of persons or to the environment.
Waste management	All feasible procedures to ensure the environmentally safe, sustainable and rational management of waste, taking into account the need to reduce, recycle and reuse waste, including the separation, collection, transport, storage, treatment, recovery and disposal of waste and the aftercare of disposal sites, in order to protect human health and the environment from the adverse effects that may result from such waste.
Waste Management Plan	A document containing systematised technical information on waste collection, transport, storage, treatment, recovery or disposal operations, including the monitoring of disposal sites during and after the closure of the respective installations, as well as the planning of these operations.
Waste Producer	Any natural or legal person whose activity produces waste.

1 INTRODUCTION

1.1 Context

The Ministry of Energy and Water (MINEA) intends to construct a 220 kV overhead line (OHL), with approximately 170 km, to supply electricity to the Cassinga Project and surrounding communities. It will start at the Gove Hydro Dam in the Huambo Province and follow a course of 135 km to Cuvango via Chipindo. From Cuvango, it will run another 35 km to Jamba, all of which are in the Huíla Province (see Figure 1-1).

To obtain funding and secure the required environmental licence, the project must undergo an Environmental and Social Impact Assessment (ESIA) process to meet Angolan laws and international good practice requirements, as well as undertake the preparation of a Waste Management Plan (WMP) as per national and international requirements. SRK Consulting in South Africa in partnership with Geolab, Engenharia e Consultoria Lda. (hereinafter Geolab) an Angolan company based in Luanda and registered with the Ministry of Environment (MINAMB), were appointed to undertake the ESIA and WMP.

The bankable ESIA is being undertaken in accordance with international good practice requirements and relevant Angolan legislation such as Presidential Decree No. 117/20 of 22 April 2020 on the General Regulation of Environmental Impact Assessment and Environmental Licensing Procedures. Under this Decree, the project is classified as a Category B Activity, as per item 35. d) “Power transmission and distribution lines from 66 kv” of Annex III. MINAMB is the organisation that will ultimately decide which category this project falls into. Considering a Category B project: the requirement is to submit Terms of Reference (ToR) for the development of the ESIA report for approval by MINAMB followed by a full ESIA report, that will be submitted to MINAMB through the Environmental Integrated System (SIA).

The MINAMB requires all public or private entities that produce waste or carry out activities related to waste management to prepare a WMP before starting their activities, and that the WMP contains at least all the information required and contained in Presidential Decree No. 190/12 (PD 190/12) of 24 August. Under IFC Performance Standard (PS)3 a Waste Management Plan is also required, this document.

This Waste Management Plan (WMP) aims to define the general criteria and procedures for the management of waste generated during the construction and operating activities of the Cassinga Electric Power Supply Project (the Project). This includes the handling, transport, storage and final disposal of the waste. Thus, this WMP allows the proponent to adopt procedures to minimise environmental impacts, comply with the international requirements (namely Environmental, Health and Safety Guidelines (EHSG) for Electric Power Transmission and Distribution (2007) of WBG, PS3) and the Angolan environmental legislation.

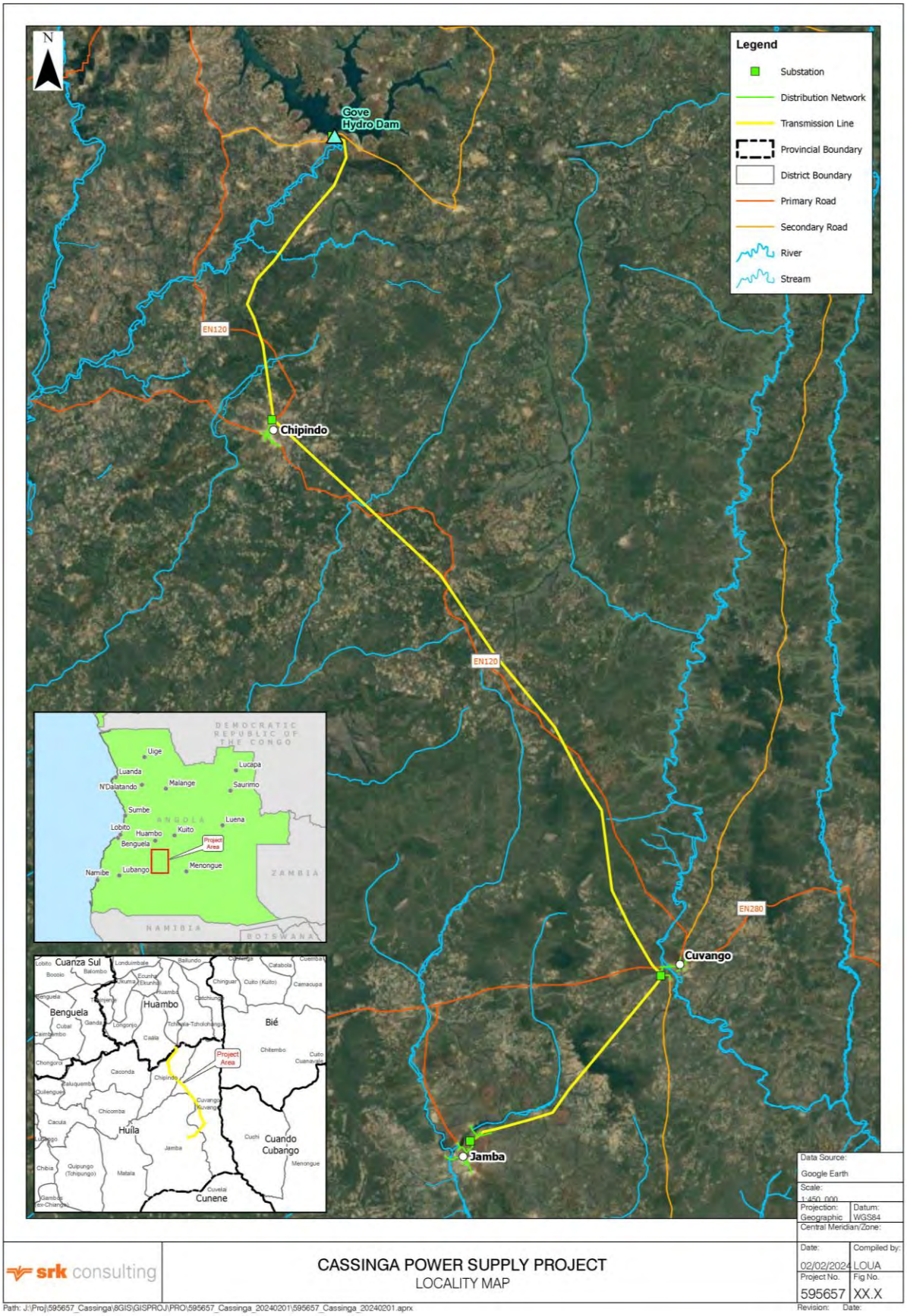


Figure 1-1: Location of the proposed 220 kV OHL and the towns it will supply with electricity.

1.2 Scope and purpose of this WMP

This document corresponds to the Waste Management Plan prepared for the Cassinga Electric Power Supply Project to be developed in Huíla Province. The document contains guidelines on the implementation of the necessary measures for correct waste management during construction and operation phases, in accordance with the provisions of the Waste Management Regulation approved by DP 190/12, EHSG and PS3.

This waste management plan describes how waste will be managed during the construction and operations of the Project, and will ensure that the proponent will:

- Minimise the volume of hazardous waste produced and reduce the hazardous nature of the waste;
- Ensure that waste is treated, whenever possible and available solutions are in place, before it is properly disposed of;
- Ensure the protection of all workers handling waste directly against accidents and diseases resulting from such exposure, by maximising mechanical handling;
- Ensure that all waste to be transported involves a minimum risk of contamination for workers, as well as for the general public and the environment;
- Instruct its employees in health, safety and environmental aspects;
- Ensure that the disposal of waste on and off site will not have any negative impact on the environment or public health;
- Record annually the origins, quantities and types of waste handled, transported, treated, recovered or disposed of, and shall keep them for five (5) years after their preparation;
- Submit a report to the Ministry of the Environment at the end of each six-month period in accordance with the approved waste management plan, the established permit conditions and also the information contained in the standardised form in Annex VIII of PD No. 190/12; and
- Immediately inform the Ministry of the Environment of any cases of accidental waste spillages, through its competent bodies.

This WMP contains all the information required under national legislation (PD no. 190/12, Annex I and Annex II) and international requirements mentioned above.

1.3 Objectives of WMP

The aim of this plan is to ensure that the proponent establishes a framework according to which waste will be effectively managed in accordance with the company's current regulations, policies and internationally accepted standards. Thus, the principles to be adopted are as follows:

- All public or private activities that produce waste or carry out activities related to waste management must draw up an WMP before starting their activities;
- This plan will be submitted to the National Waste Agency for approval, and will be implemented on the premises before the start of activities that could produce waste.

The implementation of the procedures contained in this WMP will, in general, enable the proponent to:

- Ensure compliance with national and international requirements on the waste produced by its activity;
- Developing a practical methodology for the treatment, storage, transport and disposal of waste generated during the operation; and
- Describe procedures for minimising and managing the materials generated by waste streams in accordance with the principle of a waste management control hierarchy to "Prevent, Reduce, Reuse and Recover".

1.4 Report structure

This report has 7 chapters, as identified below:

Chapter 1: Introduction and background to the project, scope, objectives, structure and times for updating this programme.

Chapter 2: Legal and Institutional Framework, provides an overview is given of the relevant national legislation, the institutions involved in the approval process, and identification of the requirements for the Project. As well as international requirements.

Chapter 3: Brief Project Description, provides a description of the project in brief and indicates its objectives, and provides information on its location, process, equipment and timetable.

Chapter 4: Responsibilities, describes who are the people in the company responsible for a series of issues and activities related to waste management and, in particular, this WMP.

Chapter 5: Waste management, this chapter aims to describe what waste is generated by the activity and how the Proponent intends to deal with it, from its generation to its disposal/final destination.

Chapter 6: Health, Safety and Risk Management section, provides general guidelines for health, safety and risk management.

Chapter 7: Monitoring and Reporting, this section aims to define the need for monitoring and the frequency of reports.

1.5 WMP update

This WMP is valid for a period of four (4) years (in accordance with Article 7(1)) from the date of its approval. The WMP must be revised and submitted to the National Waste Agency at least ninety (90) days before its expiry date, whenever there are substantial changes to the plan submitted.

As mentioned, the plan has to be renewed every 4 years or whenever there is a significant change:

- In the design or operation of the installation (reason for this update);
- On the type of chemical products to be handled;
- The type of waste to be handled and treated; and
- The type of gases emitted or monitoring procedures.

If the government amends PD no. 190/12, the proponent will have to review and adapt the measures and procedures included in the WMP to the new legal requirements.

2 LEGAL AND INSTITUTIONAL FRAMEWORK

2.1 Introduction

The National Assembly of Angola approved the new Constitution of the Republic of Angola on 5 February 2010 (most recently amended in 2021), to replace the 1992 Constitution. The Constitution provides the basis for the Basic Law on the Environment through Article 39. This article 39 (Environmental Rights) states that:

- Everyone has the right to live in a healthy, unpolluted environment and the duty to defend and preserve it;
- The state shall adopt measures to protect the environment and species of flora and fauna throughout the national territory, maintain the ecological balance, ensure the correct location of economic activities and the rational development and utilisation of all natural resources, in the context of sustainable development, respect for the rights of future generations and the preservation of species; and
- Acts that harm environmental conservation are punishable by law.

Angolan legislation is issued at national level through:

- Laws, which are issued by the National Assembly;
- Presidential Decrees, issued by the President's office; and
- Regulations (executive decrees), joint executive decrees and resolutions, which are usually issued by a ministry or ministries.

This WMP has been developed in the context of national laws and regulations, along with international standards and requirements. Several national legal instruments refer to environmental pollution, environmental impact assessment and environmental protection in general.

2.2 Institutional Framework - National

2.2.1 Ministry of Environment

The Ministry of the Environment (MINAMB) is the Ministerial Department responsible for formulating, conducting, supervising, evaluating and executing the Executive's policy in the field of protection, preservation and conservation of environmental quality, pollution control, conservation areas and valorisation of the natural heritage, as well as the preservation and rational use of mineral resources. These responsibilities, along with the implementation of strategies, programmes, and projects to promote sustainable development, and manage the environment, are outlined in its organic structure, which is published in Presidential Decree No. 278/22, issued on 7 December.

MINAMB comprises a number of agencies and services, in particular the National Directorate of Environmental Technologies (DNTA), which is the department responsible for designing and implementing environmental technologies. As the primary authority responsible for the implementation of the Environment Framework Law, No. 5/98, the Presidential Decree No. 117/20 approving General Regulation on Environmental Impact Assessment and Environmental Licensing Procedures, and all associated Regulations, the Ministry is also responsible for the review and regulation of environmental impact assessments (EIA). Depending on the type of project to be developed, the EIA report should also be initially reviewed by the appropriate line ministry which should issue its technical comments/opinion (*parecer*). This ensures that the EIA not only addresses the requirements of the Environment Framework Law and the Decree on Environmental Impact Assessment, but also relevant sectoral legislation and guidelines (e.g., policies and plans), and applicable Terms of Reference.

2.2.2 National Directorate of Environmental Technologies

The National Directorate of Environmental Technologies (DNTA, *Direcção Nacional de Tecnologias Ambientais*) is responsible for the design and implementation of environmental technologies, which establishes its legal framework, regulating its competencies, organisation and operation.

Responsibility for EIA falls under the DNTA, which, among other things, is responsible for reviewing and commenting on EIA processes, including project registration and Terms of Reference. All reports reviewed by DNTA are forwarded to the MINAMB with recommendations on whether an environmental licence should be granted or not. If considered necessary, the MINAMB invites different institutions and stakeholders to give comments and make suggestions on the final report. There is a growing decentralisation of decision-making to Provincial Government and Municipal Administration levels, particularly with regards to project categorisation, especially Category C and D activities.

It is therefore up to the MINAMB, to be the agent responsible for the evaluation of EIAs of projects likely to cause potential environmental and social impacts. The granting of an Environmental License for a proposed project is based on the findings and recommendations of the EIA for that project. If necessary, MINAMB invites different institutions and stakeholders to comment and make suggestions related to the EIA report.

2.2.3 Ministry of Energy and Water

The Ministry of Energy and Water (MINEA) was restructured by Presidential Decree No. 223/20 on August 28, 2020. It is the government department charged with developing and managing policies related to energy and water. MINEA oversees various central executive bodies such as the National Directorate of Electric Energy, the National Directorate of Renewable Energy and Rural Electrification, and the National Directorate General of Water.

The National Directorate of Electric Energy directly manages the planning, research, design, and policy implementation for the production, transport, distribution, and consumption of electric energy. The major state enterprises in the electric power sector include the National Electricity Transmission Network (RNT), National Electricity Distribution Company (ENDE) and National Electricity Production Company (PRODEL).

2.2.4 National Waste Agency

The National Waste Agency (ANR), created by Presidential Decree No. 181/14 of 28 July, to ensure the implementation of waste management policy at national level, within the framework of regulation, supervision and other applicable legislation in force.

ANR is under the supervision of MINAMB and its duties include, in particular, regulating public service concession activity in the area of waste, implementing waste management policy, based on the hierarchy of applicable management principles, the prevention of production, reuse, recycling, recovery and disposal of waste, with environmental protection criteria, economic viability, quality and efficiency of services, and to study and propose legislative, technical and economic-financial measures on waste management policy and contribute to compliance with applicable laws, regulations and standards, and to the approval of its Organic Statute, which defines all ANR's other attributions, regulates its organic structure, financial and asset management.

The Waste Management Plans developed for a given project or activity must be submitted to ANR for assessment. Once analysed and approved, ANR will issue a certificate of approval for the WMP.

2.3 National Legal Framework

2.3.1 Waste Management and Sanitation

There are a number of legal requirements that are relevant to waste management, namely:

1. Presidential Decree no. 190/12 of 24 August 2012 on waste management;
2. Executive Decree no. 17/13 of 22 January 2013 on the management of construction and demolition waste;
3. Executive Decree no. 24/15, of 23 September, on the registration and licensing of companies operating in the waste sector;
4. Joint Executive Decree No. 527/21, on Legal Regime Applicable to Fees and Emoluments Charged by the National Waste Agency;
5. Presidential Decree No.196/12, August 30, approves the Strategic Plan for Urban Waste Management (PESGRU);

6. Presidential Decree No. 265/18, 15 November, approves the Regulation for the Transfer of Wastes Intended for Reuse, Recycle and Recover;
7. Executive Decree No.234/13, 18 July, approves Standard Guidelines for the Preparation of Provincial Urban Waste Management Plans; and
8. Law No.5/87, 23 February, Regulation on Sanitation of Angola.

The above legislation is briefly discussed below.

2.3.1.1 Presidential Decree No.190/12, Waste Management Regulations

This decree establishes the general rules on the production, deposit in soil and subsoil, discharge into water or the atmosphere, collection, storage and transport of any waste, with the exception of radioactive waste or any other waste subject to specific regulations. These rules aim to prevent or minimise negative impacts on people's health and the environment, without prejudice to the establishment or rules aimed at the reduction, reuse, recycling, recovery and disposal of waste. According to Article 2, this regulation applies to all activities likely to produce waste or involved in waste management. Article 5 identifies different categories of non-hazardous waste and refers to Annex IV, where the different categories of hazardous waste are identified.

The first paragraph of Article 7 establishes that all public or private entities that produce waste or carry out activities related to waste management must prepare an WMP, before starting their activities, to contain at least all the information contained in the decree. The WMP is valid for 4 (four) years from its approval and must be reviewed and submitted to the MINAMB at least 90 (ninety) days before its validity expires, or when substantial changes occur to the plan submitted.

Article 9 of Presidential Decree No. 190/12 establishes the following obligations for organisations that produce or handle waste:

- Minimising the production and hazardous nature of waste of any category;
- Ensure that waste is treated before being disposed of;
- Ensure that all workers who deal directly with waste are protected against accidents and illnesses resulting from such exposure;
- Ensure that all waste to be transported carries a minimum risk of contamination for workers, the general public and the environment;
- Train its employees in health, safety and environmental matters; and
- Ensure that on-site and off-site waste disposal will not have any adverse impact on the environment or public health.

Make a complete annual record of the origins, quantities and types of waste handled, transported, treated, recovered or disposed of, and keep this record for five (5) years after the record is made.

2.3.1.2 Executive Decree No. 17/13 on Construction and Demolition Waste Management

This decree establishes the legal regime to which the management of waste resulting from the construction or demolition of buildings or landslides, abbreviated to construction and demolition waste (CDW), is subject. The management concept includes prevention, reuse and collection, transport, storage, sorting, treatment, recovery and disposal operations.

According to Article 3, the management of construction and demolition waste is the responsibility of all those involved in its life cycle, from the original product to the waste produced, to the extent of their respective intervention in it.

2.3.1.3 Executive Decree No. 24/15, Regulation on the Registration and Licensing of Waste Management Companies

Approval of the Regulation on the Registration and Licensing of companies active in the areas of waste, water and wastewater treatment, which establishes the requirement for companies to register with the National Waste Agency and the respective system of sanctions.

According to Article 4(1), "the application for registration is made by means of a request addressed to the Chairman of the Management Board of the National Waste Agency". Once the application for registration has been accepted, the entity responsible for waste policy and management will issue a certificate in favour of the applicant.

2.3.1.4 Joint Executive Decree No. 527/21, on Legal Regime Applicable to Fees and Emoluments Charged by the National Waste Agency

Approval of the Legal Regime Applicable to the Fees and Emoluments Charged by the National Waste Agency (ANR), which are due for the provision of services for the issue, replacement, amendment or renewal of licences, certificates and inspection acts, which defines the method of settlement and payment of the fees charged by the ANR, It is applicable to the ANR and to all natural or legal persons who benefit from its services, determining that these fees and emoluments are levied on the provision of services and the granting of rights, information or documents inherent to the respective activity, also providing for the fees in particular and also on how the revenue is allocated, distributed and monitored.

2.3.1.5 Presidential Decree No. 196/12, approves the Strategic Plan for Urban Waste Management (PESGRU)

Approves the Strategic Plan for Urban Waste Management, which is the reference instrument at national level for urban waste management, defining a set of proposals for action, supporting political decision-makers and guiding the main players on strategic options.

2.3.1.6 Presidential Decree No. 265/18, approves the Regulation for the Transfer of Wastes Intended for Reuse, Recycle and Recover

Approves the Regulations for the Shipment of Waste Intended for Reuse, Recycling and Recovery Abroad, with the aim of protecting human health and the environment from the harmful effects of inadequate waste management, applicable to non-hazardous waste intended for reuse, recycling and recovery, it defines its principles and regulates the administrative transfer procedures, the methodological standards to be observed in the process of collecting, handling and shipping waste, and the control and inspection mechanisms.

2.3.1.7 Executive Decree No. 234/13, Approves Standard Guidelines for the Preparation of Provincial Urban Waste Management Plans

Approves the Guidelines for the Elaboration of Provincial Urban Waste Management Plans, a tool to support decision-makers, technicians and others in charge of the National Urban Waste Management Sector in drawing up action plans to ensure the realization of the strategy defined in the Strategic Plan for Urban Waste Management (PESGRU).

2.3.1.8 Law No.5/87, Regulation on Sanitation of Angola

The purpose of urban health and sanitary and mortuary police activities is to supervise sanitary measures as part of general public health activities, with a view to promoting the health of the population, comprising:
a) environment sanitation, in particular human settlements, public places and dwellings;
b) the application of measures aimed at protection and hygiene at work, in collaboration with the competent structures of the Ministry of Labour and Social Security and the National Union of Angolan Workers (UNTA);
c) applying prophylactic and control measures to communicable diseases, especially those of an epidemic nature;
d) verifying deaths and regulating the burial, exhumation and transfer of corpses and their remains; and
e) the hygiene of foodstuffs and drinking water.

2.3.2 Occupational, Health and Safety Legislation

2.3.2.1 Decree No. 31/94, on Protection, Hygiene and Health in Work Systems

This decree is related with the Protection, Hygiene and Health in Work Systems, stipulating the principles aimed at promoting occupational safety, hygiene and health, revoking all legal and regulatory provisions that contradict the provisions of this decree.

Article 4(1) defines that Occupational Safety and Health aims to implement the right to safety and health protection in the workplace, in order to organise and carry out its activities in accordance with the methods and standards established by legislation for employers and workers, as well as the competent state bodies involved in this issue, in accordance with the attributions established in this decree'. Paragraph 2 of the same article states that the application of the established measures will ensure minimum safety conditions in order to minimise the risk of accidents and occupational illnesses.

2.3.2.2 Executive Decree No. 128/04, Approves the general regulations for occupational safety and health signaling

This regulation establishes the minimum requirements for the placement and use of occupational health and safety signs. This regulation applies to public, mixed, private and co-operative companies, according to Article 2.

Article 3(1) states that occupational safety and health signs, provided that the same level of efficiency is guaranteed, can be chosen between:

a) Light signals, acoustic signals and verbal communication;

b) Signs and verbal communication; and

c) Safety colours and signs to indicate tripping hazards or falls from a height.

According to Article 7(1), signs must be installed in a well-lit place, in an appropriate position and at an appropriate height, taking into account the impediments to their visibility from a distance deemed appropriate.

2.3.2.3 Decree No. 53/05, approves the legal regime for work accidents and occupational diseases

This decree approves the legal regime for accidents at work and occupational diseases, which is considered to be a sudden event that occurs in the course of labour activity in the service of the company or institution that causes the worker injury or bodily harm resulting in partial or total, temporary or permanent incapacity for work, or even death.

2.4 International Standards, Guidelines and Conventions

2.4.1 International Finance Corporation Performance Standards

International standards most commonly refer to and meet the requirements of the International Finance Corporation Performance Standards (IFC PS). Other key standards include the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines). Of these, the IFC PS (and associated guidance notes) provide guidance on identifying impacts and the related risks mitigation to conduct a proponent/developer's business sustainably.

The Equator Principles (EP) are based on the IFC PS and have been widely adopted by funding institutes as a benchmark. Guidelines also include requirements for robust stakeholder consultation and disclosure.

The IFC published a wide range of industry-specific guidelines for Environmental, Health and Safety (EHS) management, as well as 'Good Practice Notes'. The guidelines/notes relevant to the proposed Project - EHSG for Health Care Facilities - were considered when drafting this WMP.

The IFC PS comprise the following:

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- Performance Standard 2: Labour and Working Conditions;
- **Performance Standard 3: Resource Efficiency and Pollution Prevention;**
- Performance Standard 4: Community Health, Safety and Security;
- Performance Standard 5: Land Acquisition and Involuntary Resettlement;
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- Performance Standard 7: Indigenous Peoples; and
- Performance Standard 8: Cultural Heritage.

2.4.2 Equator Principles

The Equator Principles (EP4) are intended to serve as a common baseline and risk management framework for financial institutions to identify, assess and manage environmental and social risks when financing Projects. The Equator Principles Financial Institutions (EPFIs) refer to those institutions that have chosen to adopt the Equator Principles. EP4, the latest Equator Principles iteration, came into effect for all EP Financial Institutions on 1 October 2020. The principles provide a framework for an accepted international approach to the management of social and environmental issues. The intention is to ensure that projects are developed in a site-specific manner that is socially responsible and reflects sound environmental management practices. The EP4 are:

- Principle 1: Review and Categorisation;
- Principle 2: Environmental and Social Assessment;
- Principle 3: Applicable Social and Environmental Standards;
- Principle 4: Environmental and Social Management System and Equator Principles Action Plan;
- Principle 5: Stakeholder Engagement;
- Principle 6: Grievance Mechanism;
- Principle 7: Independent Review;
- Principle 8: Covenants;
- Principle 9: Independent Monitoring and Reporting; and
- Principle 10: Reporting and Transparency

2.4.3 Environmental, Health and Safety Guidelines

The General Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry specific examples of Good International Industry Practice (GIIP). These industry sector EHS guidelines are designed to be used together with the General EHS Guidelines document, which provides guidance to users on common EHS issues potentially applicable to all industry sectors.

The EHS Guidelines for Electric Power Transmission and Distribution include information relevant to power transmission between a generation facility and a substation located within an electricity grid, in addition to power distribution from a substation to consumers located in residential, commercial, and industrial areas. These Guidelines provide a summary of EHS issues associated with electric power transmission and distribution that occur during the construction and operation phases of a facility, along with recommendations for their management. Additional recommendations for the management of environmental issues during the construction and decommissioning phases of power transmission and distribution systems are provided in the General EHS Guidelines.

Environmental issues during the construction phase of power transmission and distribution projects specific to this industry sector include the following: Terrestrial habitat alteration; Aquatic habitat alteration; Electric and magnetic fields; and **Hazardous materials**. Hazardous materials include insulating oils / gases (e.g. Polychlorinated Biphenyls [PCB] and sulfur hexafluoride [SF6], and fuels, in addition to chemicals or products for wood preservation for poles and associated wood construction material. The use of herbicides for right-of-way vegetation maintenance is discussed in the above section on ‘Right-of-Way Maintenance’.

2.4.4 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

The 1993 Basel Convention is a global environmental agreement on hazardous wastes and other wastes. It aims to protect human health and the environment from adverse effects resulting from the generation, transboundary movements and management of hazardous wastes and other wastes. This convention regulates transboundary movements of hazardous wastes and other wastes, requiring its parties to ensure that such wastes are managed and disposed of in an environmentally sound manner.

The parties also undertake to do so:

- Minimise the quantities that are transported;
- Treat and dispose of waste as close as possible to its place of production; and
- Prevent or minimise the production of waste at source.

In 1995, the treaty was reinforced with a ban on toxic exports to developing countries, which generally don't have the technology to dispose of this waste safely.

Resolution 29/16 of 25 July approves the accession of the Republic of Angola to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, which aims to protect human health and the environment from the harmful effects that may result from the production and management of hazardous wastes and other wastes through strict control.

2.4.5 Stockholm Convention on Persistent Organic Pollutants (POPs)

The Stockholm Convention on Persistent Organic Pollutants was adopted at a Conference of Plenipotentiaries on 22 May 2001 in Stockholm, Sweden. The Convention entered into force on 17 May 2004. This convention was ratified by Resolution no. 49/05, 3 October. The objective of this Convention is to protect human health and the environment from persistent organic pollutants. Other objectives of this Convention are (i) to promote the use, commercialisation, management, transport, storage and disposal of POPs, or materials and equipment containing them, in a sustainable and environmentally sound manner, remembering that their toxic content must be destroyed; (ii) to promote research and development aimed at applying Best Available Technologies and Best Environmental Practices.

In 1995, the United Nations Environment Programme expanded its research and investigation on POPs with an initial focus on what became known as the “Dirty Dozen”. These were a group of 12 highly persistent and toxic chemicals: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzen, mirex, polychlorinated biphenyls, polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, and toxaphen. Many of the pesticides in this group are no longer used for agricultural purposes but a few continue to be used in developing countries.

3 STATUS OF WASTE MANAGEMENT IN ANGOLA

It is understood that Luanda is the province in Angola with a higher number of waste management operators (315) certified by ANR to manage waste. In Angola, by January 2023, 334 waste management operators were certified and licensed by the ANR, of which 275 were from the non-oil sector, 30 from the hospital sector, 20 from the oil sector and 9 from the mining sector. In Huíla Province, 5 licences/certificates have been issued by the Agency.

Solid waste management in Luanda Province is carried out by outsourced private companies under contracts with the Luanda Provincial Government through the Provincial Public Corporation. The provincial public corporation and private companies contracted by the provincial government are responsible for collection and transport. The Mulenvos landfill, the only landfill in the province, has a remaining life of 16 years. This landfill is equipped with leachate collection and drainage pipes, leachate storage and recirculation facilities, and weighbridges. Consideration is being given to upgrading the landfill with intermediate treatment facilities through a public-private partnership (PPP) scheme.

The provinces of Luanda, Benguela, Bié, Huambo and Huíla are the most active in recycling and treating the waste they produce. This activity is carried out by environmental associations, waste picker cooperatives and recycling companies (ANR, 2023).

At the local level, the municipalities where the project will be implemented do not have infrastructure designed and built in accordance with local and international standards. There are no landfills in the municipalities covered by the project. The hospitals in Cuvango and Galengue have artisanal incinerators where hazardous waste is treated. There are also dumpsites in the project area where waste is disposed of, but these are not properly constructed according to national and international standards.

There are no private waste management companies in the municipalities covered by the project, and public cleaning is carried out by the municipal cleaning brigade. There are no sanitary landfills as such, but there are some waste dumps that serve as final destinations.

4 BRIEF PROJECT DESCRIPTION

4.1 Project Location

The Project is located South of the centre of Angola, namely, in the provinces of Huila and Huambo (Figure 4-1). The Project powerline extends for about 170 km, crossing six municipalities (Municípios) which include Jamba, Kuvango, Dongo, Galangue, Chipindo and Kalima.

The main works will be carried out largely in Huila Province near the Gove Hydro Dam (Huambo) and extend for 135 km with an Overhead Line (OHL) 220 kV to Cuvango, where a new 220/30 kV substation will be built. A new 220/30 kV substation will also be built for distribution in Chipindo along with the construction of an OHL 220 kV from Cuvango to Jamba, with an approximate length of 35 km. A new 220/30 kV – 20 MVA substation will be constructed in Jamba. In addition, the infrastructure associated with the electrification of villages at Chipindo, Cuvango and Jamba will be constructed (Figure 4-1).

4.2 Project Background

The Republic of Angola, through its Ministry of Energy and Water (MINEA), is embarking on a significant enhancement of its electrical infrastructure with the Cassinga Project, aiming to boost electric power supply across various communities within the Province of Huíla. The Project is structured around the establishment of a new 220 kV Overhead Line (OHL) network, extending from Gove to Cuvango, and further branching out to Chipindo and Jamba. This network includes the construction of new substations in Chipindo, Cuvango, and Jamba, each equipped with a capacity of 220/30 kV - 20 MVA, to efficiently distribute the generated power to these villages. The Project further includes the laying down of medium voltage overhead lines for distribution, along with the necessary low voltage network, public lighting, and home connections within the communities of Chipindo, Cuvango, and Jamba. The overarching goal is to create a robust and reliable electric power supply system that not only caters to the current demands but is also scalable to accommodate future expansions, including the prospective OHL 220 kV interconnection to Cuchi/Menongue.

An estimated power demand of 80 MW has been calculated for the Cassinga Project, with an additional 10 MW anticipated for local community demands. This projection underscores the critical nature of the project in addressing the power needs of the region, fostering economic growth, and improving the quality of life for its residents.

The Cassinga Electric Power Supply Initiative represents a significant leap forward in Angola's energy infrastructure development. The Project is poised to significantly enhance the electric power distribution network in Huíla Province, catalysing economic development and improving the livelihoods of the Angolan people, meeting the growing energy demands of the region and ensuring the interconnection of Gove Hydro Plant to the Cassinga Project and the future OHL 220 kV interconnection to Cuchi/Menongue.

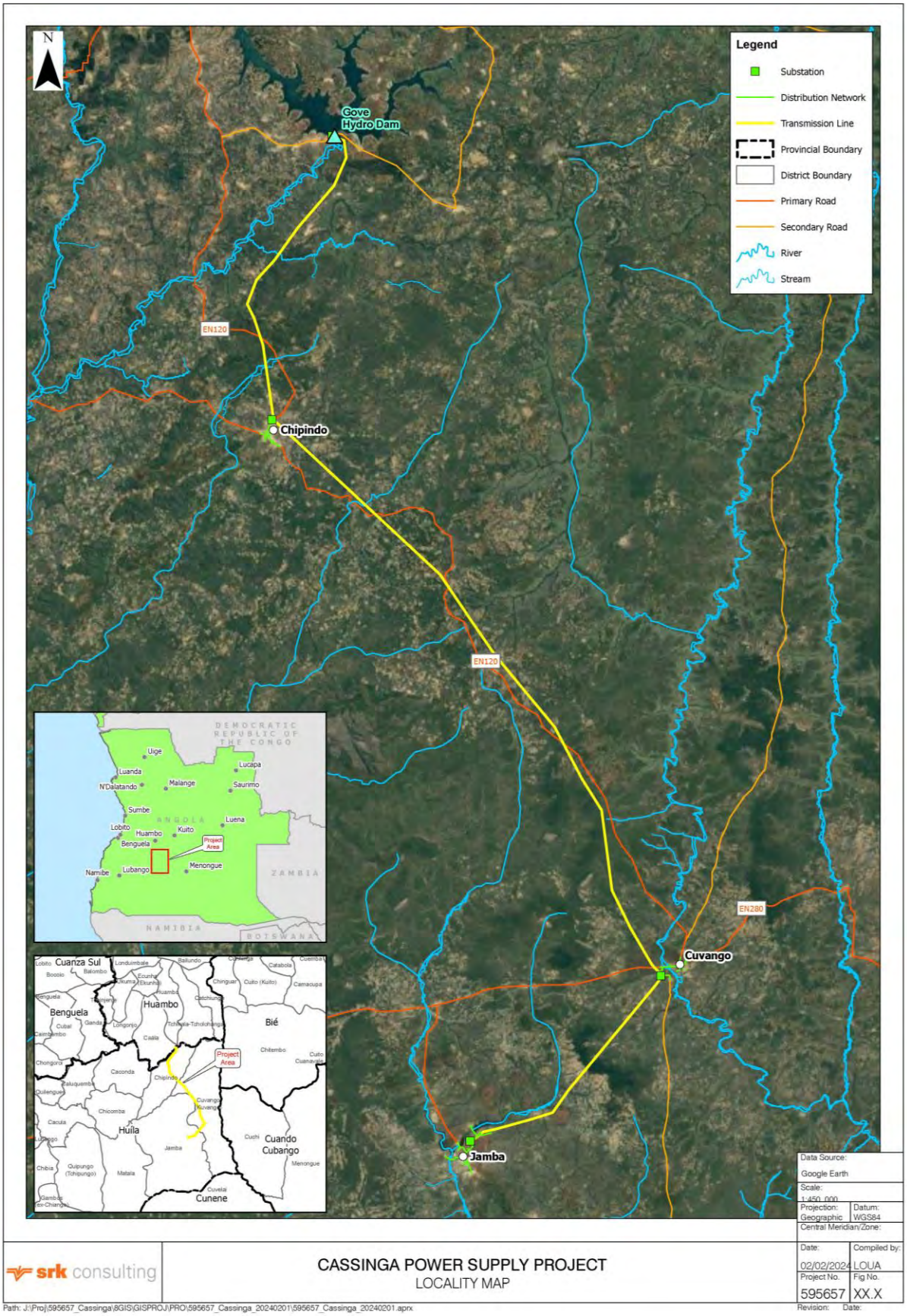


Figure 4-1: Location of the proposed 220 kV OHL and the towns it will supply with electricity.

4.3 Objectives

The main objective of the project is to provide power supply for the Cassinga Project and the surrounding communities with the construction of a new OHL 220 kV between Gove and Cuvango, through Chipindo, on approximately 135 Km. Substations 220/30 kV – 20 MVA will be built in Chipindo and Cuvango, in order to extend the National Public Grid by receiving from Gove to Cuvango and from there to Jamba area with the construction of a OHL 220 kV with approximately 35 Km, and a 220/30 kV – 20 MVA Substation to support the increasing economic activities in Jamba.

The project will build a Distribution Network, new Transformation Stations and Low Voltage Networks, Connection Homes as well install Public Lighting.

The process of electricity supply is as follows:

1. Electricity is generated at the Gove Hydro Dam using energy from flowing water;
2. An OHL transmits high-voltage electricity to the substation;
3. The substation converts high-voltage electricity to low-voltage electricity (from 220 kV to 30 kV); and
4. Distribution lines supply electricity to consumers.

A graphic summary of the process is provided in **Figure 4-2**:

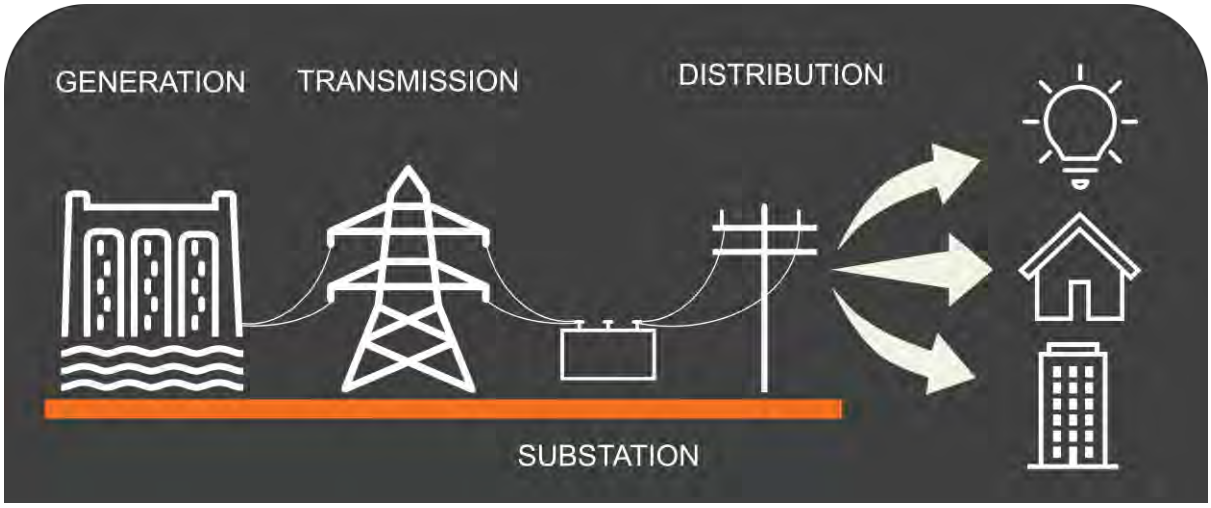


Figure 4-2: ***Summary of the process of electricity supply***.

4.4 Proposed Infrastructure

The Project involves the construction of three new substations and the establishment of a new 220 kV Overhead Line (OHL) network extending from Gove to Chipindo, Cuvango, and Jamba. For electrification of the villages (i.e., Chipindo, Cuvango and Jamba), the Project will include a 30 kV Medium Voltage OHL network to the new substations and a Low Voltage network to supply electricity to 1 000 homes in each of the three villages.

4.4.1 Transmission Lines and Towers

Transmission line conductors are strung on in-line suspension towers and bend (strain) towers. The structures proposed to be used for the majority of the 220 kV Transmission line are metallic towers type Y, adequate to the angle of the OHL. These towers are approximately 50 m in height and a total footprint area of 80 m x 50 m is required for each tower. The average span between two towers is 400 m.

4.4.2 New Substations

A substation is a key part of the electrical generation, transmission and distribution system, where voltage is transformed from high to low or the reverse using transformers. The project will comprise the supply, installation, testing, commissioning and operation of three 220/30 kV substations in accordance with MINEA and IEC standards. The construction of the new substations will be in accordance with the plan and the single line schemes that will be presented at a later stage, based on relevant guideline schemes. The design of the Chipindo, Cuvango and Jamba 220/30 kV substations is based on MINEA Technical Specifications and IEC Standards. At the 220 kV level, the single busbar configuration was implemented, and the width of each 220 kV Bay Line is 15 m.

4.4.3 Overhead Line Infrastructure

OHL infrastructure refers to the network of towers, poles, conductors and equipment used to transmit and distribute electrical power through aerial cables. The OHL infrastructure for the Project will be constructed in two stages:

Stage 1: Gove – Chipindo – Cuvango

The Gove – Chipindo – Cuvango section of the OHL (Figure 4-1) will comprise the following components:

- High Voltage Transmission Line, between Gove Hydro and New Cuvango 220/30 kV Substation, energized 220 kV single circuit, for a distance of appx 135 km.
- Metallic Towers type Y, adequate to the angle of the OHL.
- Three-Phase OHL 220 kV, bundled conductor "YEW" Cable 479 mm^2 (2 by phase).
- Two Guard Wires will be installed, one conventional "Guinea" and another type "OPGW" with 24 Optical Fibres.

Stage 2: Cuvango – Jamba

The Cuvango – Jamba section of the OHL (Figure 4-1) will comprise the following components:

- High Voltage Transmission Line, between New Substation at Cuvango and New Jamba 220/30kV Substation, energized 220 kV single circuit, for distance of appx 35 km.
- Metallic Towers type Y, adequate to the angle of the OHL.
- Three-Phase OHL 220 kV, bundled conductor "YEW" Cable 479 mm^2 (2 by phase).
- Two Guard Wires will be installed, one conventional "Guinea" and another type "OPGW" with 24 Optical Fibres.

4.4.4 Electrification of community homes and public lighting

The electrification of Chipindo, Cuvango and Jamba requires several infrastructure components. The installation of these components within each community will establish a medium and low voltage network to supply grid electricity to approximately 1 000 homes in each community, including public lighting. These components include: Medium Voltage Network 30 kV OHL, Transformation Station, LV Network and Lighting; and Home Connections.

4.5 Construction camps

This construction of the powerline will require the establishment of a construction camp/s at appropriate location/s along the route. Construction camps will be sited at the Contractor's discretion according to their construction schedule and needs. It is estimated that a campsite will be built approximately every 80 km and will be required to house up to 100 people. The exact siting of the construction camps will require negotiation

with the relevant landowner/s and must take cognisance of any no-go and sensitive areas identified through the ESIA process. Camp sites are assumed to be sitted near substations (see Appendix G). Once construction activities have been concluded, the construction camps will be closed off and the area rehabilitated concurrently.

4.6 Timing

In most cases, the construction will begin at one end and progress towards the other. Construction of the Project will be undertaken over a period of approximately 36 months, provided construction proceeds as scheduled. It is proposed that the Contractor will commence with construction in the first quarter of 2025.

4.7 Closure and Rehabilitation

After the completion of construction activities, concurrent rehabilitation will be conducted e.g., when a campsite is removed, this area will be cleared and cleaned of any debris, topsoil re-established and revegetated.

The closure and/or rehabilitation will also be initiated upon the decommissioning of Project facilities at the end of their operational life or if there is a need for significant upgrades or replacements. This Phase will involve dismantling and removing electrical equipment, structures and any other installations, followed by the rehabilitation of Project sites to ensure that they are returned to their natural state or repurposed in a manner that benefits the local communities and environment.

Rehabilitation efforts will focus on soil stabilisation, replanting vegetation and ensuring that any residual impacts from the construction and operation phases are adequately addressed.

4.8 Water Consumption

Water is essential not only for the construction phase but also for operational maintenance and environmental management. Currently, it has not yet been established how much water will be required or where it will be sourced from. Table 4-1 presents possible uses of supplied water for the construction and operational phases of the Project.

Table 4-1: Anticipated water requirements.

Phase	Purpose	Anticipated Water Requirements
Construction	Dust Suppression	Regular application on exposed soils and roads to minimize dust emissions.
	Concrete Mixing	Water for mixing concrete for foundations and structural components.
	Compaction	Water for soil compaction at foundation sites and road construction.
	Sanitation	Water for sanitation facilities for construction workforce and in camps.
	Vegetation Management	Water for the establishment and maintenance of vegetation for erosion control and landscape restoration.
Operation	Cooling Systems (if applicable)	Continuous water supply for any water-based cooling systems for substation equipment.
	Maintenance Cleaning	Water for routine cleaning of equipment and infrastructure to maintain safety and efficiency.

Phase	Purpose	Anticipated Water Requirements
	Vegetation Management	Water for maintaining landscaped areas around substations and OHL routes to control dust and preserve barrier vegetation.

4.9 Energy Consumption

During the construction and operational phases of the Project, energy consumption will differ between phases and will need to be sourced. This electricity will be supplied either through diesel generators or, where possible, direct connections to the local grid. Table 4-2 presents an overview of the anticipated uses of electricity.

Table 4-2: Energy users.

Phase	Component	Description
Construction	Heavy Machinery Operation	Relies predominantly on diesel fuel for the operation of earthmoving equipment, cranes, and transportation vehicles.
	Temporary Power Solutions	Electricity needed for lighting, operating tools, and providing accommodation at construction camps, supplied through diesel generators or local grid connections where possible.
Operation	Power Supply Demand	Total estimated demand of 90 MW, with 80 MW for the project's core objectives and an additional 10 MW for local communities, covering residential, commercial, and industrial needs.
	Maintenance and Operations	Energy consumed by maintenance vehicles, diagnostic equipment, and operational centres, emphasizing the need for efficient energy management throughout the project's lifecycle.

4.10 Air emissions

Air emissions associated with the Project will also vary across different phases of the project, notably during construction and operation. Understanding and mitigating these emissions is necessary to ensure environmental compliance and minimise impacts on air quality and public health. Table 4-3 provides an overview of the anticipated air emissions during the different phases of the Projects as well as possible mitigation strategies.

Table 4-3: Anticipated air emissions and mitigation strategies.

Phase	Source of Air Emissions	Emissions Description	Mitigation Strategies
Construction	Dust and Particulate Matter (PM)	Land clearing, excavation, and other soil-disturbing activities generate significant amounts of dust and PM, affecting air quality and respiratory health.	Use water sprays to settle dust, cover stockpiles, and implement silt fences.
	xhaust Emissions from Vehicles and Equipment	Operation of construction machinery, vehicles, and generators produces exhaust gases, including carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO2), and volatile organic compounds (VOCs).	Use low-emission vehicles and machinery, schedule regular maintenance to reduce emissions.
	Construction Materials	Certain materials used in construction emit VOCs during handling and application, such as paints, solvents, and adhesives.	Use low-VOC products and ensure proper ventilation during application.
Operation	Substation Equipment	Electrical equipment, such as transformers and switchgear, can emit small quantities of Sulphur Hexafluoride (SF6) gas due to leakage. SF6 has a high global warming potential, despite being low in volume.	Regularly inspect and maintain equipment to prevent leaks, use alternatives to SF6 where feasible.
	Maintenance Activities	Maintenance operations, including the use of vehicles and portable generators, can produce exhaust emissions similar to those during the construction phase but on a smaller scale.	Implement preventive maintenance schedules for vehicles and generators, use electric or hybrid models.

4.11 Noise

Noise emissions associated with the Project are anticipated during both the construction and operation phases. The levels and impact of these emissions will vary depending on the specific activities and the proximity of work sites to local communities. Table 4-4 outlines the anticipated noise sources during the Project.

Table 4-4: Anticipated noise sources.

Phase	Source of Noise	Noise Description
Construction	Heavy Machinery and Equipment Operation	Activities like earthmoving, excavation, and compaction involve the use of heavy machinery generating significant noise.
	Construction Vehicles	Frequent movement of construction vehicles, including trucks transporting materials and machinery, contributes to overall noise levels.
	Construction Activities	Specific tasks like pile driving, welding, and the erection of towers and substations are inherently noisy.
	Temporary Construction Camps	Day-to-day operations within construction camps contribute to the overall noise environment and can pose a nuisance to nearby social receptors.
Operation	Substation Operations	Hum or buzz from transformers and other substation equipment can be audible, especially in quieter, rural areas.
	Maintenance Activities	Occasional noise from maintenance operations, including the use of vehicles and machinery for repairs and inspections.
	Cooling Systems	If cooling systems are used in substations, they can generate continuous noise during operation.

4.12 Waste Generation and Disposal

See Section 5 of this report.

4.13 Wastewater Generation

See Section 5 of this report.

5 RESPONSIBILITIES

5.1 General Manager

The General Manager, as the party directly responsible for compliance with this WMP, must:

- Ensure that the WMP is implemented in all operational and administrative areas of the company, by the service providers, clients, partners and employees involved;
- Allocate the appropriate resources (human, technical and financial) to ensure the proper implementation of this Plan; and
- Manage environmental emergencies associated with waste management, in accordance with this Plan and the guidelines, recommendations and measures contained in the Environmental and Social Impact Assessment (ESIA).

5.2 Health, Safety and Environment Manager

The Health, Safety and Environment (HSE) Manager will be responsible for:

- Induction of staff at all levels regarding the environmental and social aspects of their jobs;
- Staff training through departmental meetings and talks at meetings to discuss occupational safety issues - this can include delegating responsibility to section managers for task-specific training;
- Develop training techniques;
- Provide weekly updates at management meetings on environmental and social performance;
- Conduct formal and informal on-site inspections to assess overall performance;
- Assist in the development of method statements, action plans and corrective actions as required;
- Responding to environmental incidents and supervising corrective actions, such as clean-ups;
- Developing/updating management plans (e.g. emergency preparedness and response plans, waste management plans, health and safety procedures);
- Supervising the supply and use of Personal Protective Equipment (PPE);
- Keeping a record of incidents and complaints; and
- Propose practical mitigation, management and monitoring for inclusion in the Environmental and Social Management Plan.

5.3 Collective Responsibility

All workers (and contractors) will ensure that the waste generated by their operations and activities is properly managed and that all activities related to the WMP are developed and implemented in accordance with the provisions of the WMP.

All workers have a responsibility to help ensure that procedures are followed, and that waste is placed in the appropriate places and in the containers provided.

5.4 Contractors and Suppliers

Designated contractors must do the following before construction activities begin:

- Issue method statements for proponent approval;
- Comply with all the requirements of this WMP and the respective ESIA;
- Appoint an HSE Manager, who will be responsible for implementing this WMP; and
- Submit all documentation/control procedures related to the WMP for review and approval.

5.5 Waste management companies

Only waste management companies certified by national authorities and able to fulfil the appropriate standards and requirements will be contracted to transport and dispose of any and all waste streams.

Treatment/disposal sites will be audited to ensure compliance with the appropriate standards prior to approval, whenever this situation arises.

Contracted waste management companies will be audited to ensure that all local environmental policies, procedures/regulations, and treatment and disposal systems are being followed and applied.

Whenever waste management companies are hired, they have to:

- Submit a Monthly Waste Report; and
- Provide documentation / certificates / manifests confirming receipt of the waste, the quantities involved and the type of treatment / destination.

6 WASTE MANAGEMENT PLAN

The Project will generate various types of waste during its construction, operation, and decommissioning phases. The management of this waste is crucial to minimising environmental impacts and comply with both national and international environmental standards.

6.1 Construction phase

During this phase, all contractors will comply with this Waste Management Plan in order to minimise and control waste. The amount of waste (solid, liquid, including wastewater) will depend to some extent on the duration of the construction phase.

Waste will be separated at source, deposited in containers, compacted and stored in paved areas and grouped by type of waste. Any waste or rubbish will be collected immediately, and frequent cleaning of the site will be implemented.

Due to the lack of suitable waste disposal sites and waste management companies in the municipalities crossed by the project, waste disposal areas will be built at the campsites, where the waste will be properly stored until a suitable waste management company, certified by MINAMB, is found in the provinces of Huambo or Huíla, and eventually in Luanda. An agreement will be signed with the identified contractor(s). Once there is sufficient volume, the contract will be triggered and the company will collect and dispose of the waste (non-hazardous and hazardous). The certified company(ies) must issue a certificate confirming the type of waste collected, the volumes and the treatment method used.

6.1.1 Typical Waste Generated During Construction

Apart from residual vegetation, the waste streams likely to be produced during the construction phase will include general waste (non-hazardous) and hazardous waste.

Hazardous materials in this sector include insulating oils / gases (e.g. Polychlorinated Biphenyls [PCB] and sulfur hexafluoride [SF6], and fuels, in addition to chemicals or products for wood preservation for poles and associated wood construction material.

Regular maintenance of vegetation within the rights-of-way is necessary to avoid disruption to overhead power lines and towers. An integrated approach to vegetation management may indicate that use of **herbicides** is the preferred approach to control fast-growing vegetation within transmission and distribution rights-of-way. In this case, the following guidance on herbicide application, storage, and handling should be considered.

The majority of wooden utility poles are treated with **pesticide** preservatives to protect against insects, bacteria, and fungi, and to prevent rot. The preservatives most commonly used for power poles are oil-based pesticides such as creosote, pentachlorophenol (PCP), and chromated copper arsenate (CCA).

It is difficult to provide an estimate of the total amount of unprocessed solid waste likely to be produced during this phase of the Project. This waste stream is expected to consist predominantly of **non-hazardous waste,** including paper, plastic, cloth and some food waste. Non-hazardous waste will be separated for recycling and non-recyclable waste will be deposited in a general municipal landfill.

Construction activities will also result in the production of **hazardous waste,** including chemicals associated with the maintenance of machinery and vehicles, oily rags and filters, empty containers for hazardous chemicals (paints, solvents, lubricants), and electrical and electronic equipment.

Non-hazardous waste will be separated from hazardous waste at source and all waste will initially be stored on site in a dedicated area before being sent to a safe final destination/disposal. For hazardous waste, it may be possible to return used oils and lubricants to suppliers or have them recycled by approved agents in Angola.

The site construction may have a small room providing first-aid and will most likely generate some medical/clinic waste that will have to be managed and disposed of. The medical waste normally associated with a site construction includes very small quantities of some used materials/equipment. A small amount of this waste should be considered biohazardous and will be transferred to a hospital unit for proper disposal, if not available on site.

It should be noted that it will probably be necessary to store at least small quantities of hazardous waste on site until volumes are sufficient to justify off-site transport. As such, a secure, covered, ventilated holding basin will have to be available for the temporary storage of hazardous waste. Table 6-1 presents the typical waste generated during construction phase.

Table 6-1: Typical types of waste generated during construction phase.

Phase	Type of Waste	Waste Description	Management Strategies
Construction	Construction and Demolition Waste	Includes concrete rubble, metal scraps, timber, vegetation, wooden spool, pallets, packaging materials, and excess construction materials.	Recycle or reuse materials on site. Metal scraps sent to local recycling facilities, soil and rubble used for landscaping or backfilling. All merchantable wood will be removed from the transmission line corridor and sold for lumber or firewood by the clearing contractor. Wood chips left on-site may be used as erosion protection or spread within the upland portions of the corridor.
	Hazardous Waste	Includes oils, lubricants, broken filters, treated wood (e.g. poles), waste aerosol cans, used tires and paints from machinery and equipment, as well as batteries and electronic and electric waste. Containers with residues of herbicides and pesticides.	Collected separately and disposed of or treated at licensed facilities to prevent environmental contamination.
	Domestic Waste	Generated from temporary construction camps, including food waste, cans, packaging, and other general refuse.	Minimise through reduction and recycling initiatives, with remainder disposed of at licensed municipal waste facilities.

6.1.2 Wastewater

Domestic wastewater is characterised by a high concentration of nutrients, organic matter and a variety of pathogens. As such, it must be properly treated before discharge to avoid negative impacts on human health and the environment.

The construction workforce will generate sewage and wash water that will have to be managed. Sewage and other effluent from the ablution facilities should be disposed of using septic tanks. No sanitary wastewater will be discharged into the environment. Septic systems are commonly used for treatment and disposal of domestic sanitary sewage in areas with no sewerage collection networks.

When septic systems are the selected form of wastewater disposal and treatment, they should be: i) properly designed and installed in accordance with local regulations and guidance to prevent any hazard to public health or contamination of land, surface or groundwater; ii) well maintained to allow effective operation; iii) installed in areas with sufficient soil percolation for the design wastewater loading rate; and iv) installed in areas of stable soils that are nearly level, well drained, and permeable, with enough separation between the drain field and the groundwater table or other receiving waters.

The total amount of effluents to be discharged of during the construction phase could be further increased by washing equipment such as machinery and vehicles, although it is not possible to determine the exact quantities produced by these activities. Vehicle wash water often contains at least small amounts of hydrocarbons (oils, grease, etc.) and as such, the washing of vehicles and machinery will only be carried out at authorised and well-selected washing sites designated for this purpose, where the wash water is collected and routed through an oil/water (O/W) separator in the pipeline prior to discharge. This water will be monitored before being discharged into the environment in order to comply with the water quality regulations (Presidential Decree no. 261/11, 6 October) and international guidelines. Table 6-2 shows potential water sources for the project during construction phase.

Table 6-2: Potential wastewater sources – construction phase.

Phase	Source of Wastewater	Anticipated Wastewater Type	Mitigation Strategies
Construction	Construction Camps	Domestic wastewater from kitchens, sanitation, and laundry	• Installation of temporary treatment facilities. • Proper disposal and treatment of domestic wastewater.
	Equipment and Vehicle Maintenance	Wastewater with grease, oil, and other contaminants	• Use of oil/water separators. • Proper disposal of contaminated wastewater.
	Concrete Mixing and Construction Processes	Wastewater with suspended solids and materials	• Sediment control measures. • Reuse of water where possible. • Proper management and disposal.

During the construction phase, erosion control measures and proper containment of construction site runoff can help prevent sediment and pollutants from entering nearby water bodies, protecting water quality in the surrounding area.

6.1.3 Non-Hazardous Waste Generated by the Activity

Non-hazardous solid waste generated at construction sites includes excess fill materials from grading and excavation activities, scrap wood and metals, and small concrete spills. Other non-hazardous solid wastes include office, kitchen, and dormitory wastes when these types of operations are part of construction project activities.

In the table below (Table 6-3), a list with the potential non-hazardous waste generated during the construction phase of the project can be found. The table also presents estimated quantities of some waste streams based on typical waste volumes generated by regional powerline projects'.

This list will be updated, from the point of view of the type of waste generated and the quantities, as periodic reports are submitted to the competent authorities.

Table 6-3: Preliminary list of non-hazardous waste produced during the construction phase with estimation of the waste.

LAR code (Annex X)	Waste description	Origin of waste	Estimated quantities and storage	Final destination
20 01 08	Biodegradable kitchen and canteen waste	Canteen (construction site)	5.4 ton/month Dedicated containers	Can be used as organic compost if the quality is acceptable. Option to be analysed later
15 01 02 / 17 02 03	Plastic packaging	Offices and warehouses / construction activities	6.48 ton/month Dedicated containers	Compaction and storage; Certified waste recycling company
15 01 01 / 20 01 01	Paper and cardboard	Office & Workshop	1.08 ton/month Dedicated containers	Compaction and storage; Certified waste recycling company
17 04 07 / 17 04 02	Scrap Metal - Mixed Metals	Construction and maintenance	54 ton/month Dedicated containers	Steel scrap yard for recycling
15 01 03 / 17 02 01 / 20 01 38	Wooden packaging / pallets	Pallets/packaging	54 ton/month Dedicated jumps	Return to supplier for recycling
20 01 02 / 17 02 02	Glass	Canteen waste / construction activities	n.a. Dedicated containers	Certified waste recycling company
19 08 05	Domestic wastewater treatment sludge	Construction camps	n.a. Dedicated containers	Can be used as organic compost if the quality is acceptable
20 02 01 / 20 01 38	Vegetation, wood	Site clearing/ Deforestation	n.a. Dedicated containers	Compost, building material and fuel for communities
17 01 01 / 17 05 04 / 17 09 04	Construction and demolition wastes (concrete, soil and rocks, other)	Construction activities (e.g. tower bases)	n.a. Dedicated containers	Soil and rocks from clearance to return to the natural area

Note: estimated waste quantities are based on typical waste volumes generated by power line projects. *** n.a.** - not available

6.1.4 Hazardous Waste Generated by the Activity

In the table below (Table 6-4), a list with the potential hazardous waste generated during the construction phase of the project is listed. The table also presents estimated quantities of some waste streams based on typical waste volumes generated by regional powerline projects'.

This list will be updated, from the point of view of the type of waste generated and the quantities, as periodic reports are submitted to the competent authorities.

Table 6-4: Preliminary list of hazardous waste produced during the construction phase.

LAR code (Annex X)	Waste description	Origin of waste	Estimated quantities and storage	Final destination
16 06 01 (*) / 16 06 02 (*) / 20 01 33 / 20 01 34	Lead / nickel-cadmium batteries and accumulators	Vehicles nad equipment	1.08 ton/month Pallets in the workshop	Battery recycling
16 06 05 (*) / 20 01 33 (*)	Other batteries and accumulators	Office / workshop	1.08 ton/month Dedicated plastic drum	Battery recycling

LAR code (Annex X)	Waste description	Origin of waste	Estimated quantities and storage	Final destination
20 01 32 (*) / 18 01 03 / 18 01 01	Medicines and medical waste other than those mentioned in 20 01 31.	First Aid Post	Very low	Disposal agreement with an existing local hospital
20 01 19 (*)	Plastic container with pesticides	Containers, cans with pesticides residues	n.a.	To be discussed and analysed
15 01 10 (*)	Metal drums - Metal packaging	Oil storage	27 ton/month Dedicated containers	Steel scrap yard for recycling
20 01 37 (*)	Wood contaminated with preservatives	Damaged poles	n.a.	To be discussed and analysed
20 01 27 (*)	Paints, inks, adhesives and resins	Rust prevention	n.a. Scraps collected in used IBC container	Collected by a certified company
20 01 35 / 36 (*)	Electrical and electronic equipment (cables and insulating materials)	Offices in the camp site, working areas and workshop	21.6 ton/month On a pallet in the workshop	Recycling Company
15 02 02 / 03 (*)	Absorbents, filter materials, cleaning cloths and protective clothing contaminated with hazardous substances	Workshop, equipment and vehicles maintenance	n.a. Several containers	Stored and sent to a certified waste management company
16 01 03 (*)	Used tyres	Construction vehicles and equipment maintenance	n.a.	Recycling through the tyre supplier
16 01 07 (*) / 13 08 99 (*)	Oil filters and used oil	Construction fleet and light vehicles, equipment	Various	Oil drainage and filter recycling
16 01 16 (*)	Gas bottles, aerosol cans, used fire extinguishers	Workshop and safety consumables	Open Top IBC workshop	Recycling through the supplier
13 07 01- 03 (*)	Waste of liquid fuels and lubricants	Vehicles and equipment	2.16 ton/month used oil Stored in used oil drums	Used oils to competent recyclers
13 05 02 (*) / 13 05 07 (*)	Oily water from oil/water separators and sludge containing hazardous substances	Workshop and maintenance areas	5.4 ton/month Final deposit	Water treatment system, oily waste as above to be collected by a certified waste management company
17 05 03 (*)	Contaminated sands	Cleaning up spillages in the workshop and elsewhere	21.6 ton/month Dedicated container	Storage awaiting collection from a certified company

Note: estimated waste quantities are based on typical waste volumes generated by power line projects. * n.a. - not available

6.2 Operation phase

6.2.1 Typical Waste Categories Generated During Operation

In the table below (Table 6-5), categories of the typical waste generated by a health care facility are identified.

Table 6-5: Typical categories of waste generated by the activity.

Phase	Type of Waste	Waste Description	Management Strategies
Operation	Maintenance Waste	Includes used oils, filters, and worn-out parts from machinery and vehicles. Pesticides residues.	Managed according to strict disposal protocols to prevent environmental contamination.
	Domestic Waste	Arising from operational staff and possibly from the maintenance of permanent facilities.	Managed through reduction, reuse, and recycling strategies, with residual waste disposed of at approved municipal sites.

6.2.2 Wastewater

The generation and management of wastewater during operational phase of the Project require thorough planning and implementation of best practices to ensure compliance with environmental standards and sustainability objectives. Table 6-6 provides an overview of anticipated wastewater generation sources and proposed strategies to mitigate these.

Table 6-6: Anticipated wastewater sources and mitigation strategies.

Phase	Source of Wastewater	Anticipated Wastewater Type	Mitigation Strategies
Operation	Substation Maintenance	General cleaning and maintenance wastewater	• Collection and treatment systems for wastewater. • Recycling of water for maintenance processes where feasible.
	Cooling Systems for Electrical Equipment	Cooling water discharge	• Design cooling systems to minimise water usage. • Incorporate water recycling systems. • Treatment of discharge water to meet environmental standards.

6.2.3 Non-hazardous waste

Non-hazardous waste is waste that does not pose a threat to human health or the environment when handled and disposed of in an acceptable and appropriate manner. Waste will be identified and categorised at source on the site. The following non-hazardous waste is expected to be generated during operation (see Table 6-7). At the moment, it is not possible to estimate volumes of wastes generated during the operation phase. This will be possible to report once civil works start, and wastes are collected by a certified company, where volumes, types and disposed methods will be reported.

Table 6-7: Preliminary list of non-hazardous/general waste generated during the operation phase.

Code LAR (Appendix X)	Waste description	Origin of waste	Final destination
15 01 02	Plastic packaging	Maintenance activities of the power line and distribution grid	Certified waste company

Code LAR (Appendix X)	Waste description	Origin of waste	Final destination
15 01 01 / 20 01 01	Paper and cardboard	Maintenance activities of the power line and distribution grid	Certified waste company
17 04 07	Scrap Metal - Mixed Metals	Maintenance activities of the power line and distribution grid	Certified waste company
15 01 03 / 20 01 38	Wooden packaging / pallets	Pallets/packaging	Certified waste company
20 01 08 / 20 01 01	Food waste / paper and cardboard	Maintenance areas where staff is doing the work	Certified waste company

6.2.4 Hazardous waste

Hazardous solid waste includes contaminated soils, which could potentially be encountered on-site due to previous land use activities, or small amounts of machinery maintenance materials, such as oily rags, used oil filters, and used oil, as well as spill cleanup materials from oil and fuel spills.

Hazardous waste, as defined by DP no. 190/12, is waste that contains one or more of the risk characteristics of being flammable, explosive, corrosive, toxic, infectious or radioactive, or that has any other characteristic that poses a risk to human health and the quality of the environment, as well as those that are approved or considered as such by the international treaties or conventions that Angola has ratified.

All hazardous materials must have Material Safety Data Sheets (MSDS[1]), both in the area where the material is stored and in the area where it is actively used. MSDSs must be available in Portuguese, English and the relevant local language, and warning signs (internationally accepted graphics) must be displayed on the premises.

In the table below (see Table 6-8) is a preliminary list of potential hazardous waste generated during the operation phase of the Project and final destination.

Table 6-8: Preliminary list of hazardous waste generated during the operation phase.

Code LAR (Appendix X)	Waste description	Origin of waste	Final destination
16 06 01 (*) / 16 06 02 (*) / 20 01 33 / 20 01 34	Lead / nickel-cadmium batteries and accumulators	Vehicles, heavy vehicles and equipment	Battery recycling
16 06 05 (*) / 20 01 33 (*)	Other batteries and accumulators	Office / workshop	Battery recycling
15 01 10 (*)	Plastic packaging containing hazardous substances such as herbicides	Working site areas during project, maintenance activities namely vegetation maintenance of right-of-way	Returned to supplier for reuse, if applicable Identification of other options for final destination
15 02 02 (*)	Absorbents, filter materials, cleaning cloths and protective clothing contaminated with hazardous substances, cables with hazardous materials	Working site areas during maintenance activities	Recycled or shredded and landfilled
16 01 07 (*)	Oil filters	Maintenance of equipment and vehicles	Oil drainage and filter recycling

[1] MSDS: Material Safety Data Sheet.

Code LAR (Appendix X)	Waste description	Origin of waste	Final destination
20 01 37 (*)	Wood contaminated with preservatives	Maintenance of equipment (Damaged poles)	To be discussed and analysed
20 01 35 (*) / 20 01 36 (*)	Electrical and electronic equipment (cables and insulating materials)	Working site areas during maintenance activities	Certified Recycling Company
17 06 03 (*) / 17 09 02 (*) / 16 02 10 (*)	Insulating oils / gases (e.g. Polychlorinated Biphenyls [PCB] and sulfur hexafluoride [SF6]	Maintenance activities	Certified Recycling Company
20 01 19 (*) / 17 09 03 (*)	Chemicals or products for wood preservation for poles and associated wood construction material	Maintenance activities	Certified Recycling Company

6.3 Waste Management Procedures

6.3.1 Generic waste management procedures

Proponent will monitor, control and keep up-to-date records of the waste produced in its activities, including a copy of the reception certificate provided by the disposal or transport company, certified by ANR, detailing the origin, quantity and type of waste.

All contractors must adhere to the company's WMP. This will be implemented before the start of the construction phase and throughout the lifetime of the Project, and the following general principles will be applied:

- When hazardous waste is collected, a manifest must be filled in, in quadruplicate, in accordance with the model in Annex VII of Presidential Decree no. 190/12, stating the quantities, quality and destination of the waste chosen;
- Minimise the volume of hazardous waste produced and reduce the hazardous nature of the waste;
- Ensure materials are stored in designated areas;
- Ensure that waste is treated before it is properly disposed of;
- Ensure that all workers who directly handle waste are protected against accidents and illnesses resulting from such exposure, maximising mechanical handling;
- Assess the risks and impacts of the Project activities on the natural environment and ensure that all waste to be transported carries a minimum risk of contamination for workers, the general public and the environment;
- Incompatible materials will be stored in segregated areas and will not be placed in the same containers;
- Wastes will be stored on paved surfaces or within secondary containment to prevent spills or leaks from infiltrating the ground. The area will also have appropriate drainage system to handle rainwater and prevent the accumulation of water within the containment area;
- Train your workers in health, safety and the environment;
- Ensure that on-site and off-site waste disposal will not have any adverse impact on the environment or public health;
- Ensure the identification and classification of waste streams;
- Ensure effective control, monitoring and documentation of the waste generated by all activities;
- Make a complete annual record of the origins, quantities and types of waste handled, transported, treated, recovered or disposed of, and keep this record for five (5) years after its preparation;

- Submit to the authority responsible for the environmental sector, at the end of each six-month period, a report in accordance with the approved waste management plan, the established permit conditions and also with the information contained in the form in Annex VIII of PD no. 190/12; and
- Immediately inform the environmental authority of any cases of accidental waste spillages, through their competent bodies.

6.3.2 Implementation of the Prevent, Reduce, Reuse and Recover principle

A waste minimisation policy will be followed with the aim of promoting the reduction of waste production and encouraging recycling. Emphasis will be placed on reducing volume, reusing and recycling materials wherever possible. The principle can be summarised as follows:

- **Prevent**: If possible, do not produce waste;
- **Reduce**: Reduce at source, using methods that minimise the amount of waste generated or lead to the concentration of harmful substances in the waste through more efficient practices; if generated, reduce that amount;
- **Reuse**: To the extent that it is not possible to further reduce the generation, reuse or recycle waste so that it is destroyed or transformed into non-waste; and
- **Recovering**: using waste as raw material for other sectors (for example, wooden pallets can be used to make furniture, etc.).

6.3.3 Handling and segregating waste

Personnel involved in waste management must recognise and understand the potential dangers associated with waste handling and receive appropriate training at a level compatible with their duties. Waste management activities require the use of the following personal protective equipment (PPE):

- Gloves (e.g. chemical resistant);
- Safety helmet;
- Safety boots; and
- Overalls or other clothing suitable for the job.

At the point of generation, waste should be identified and segregated.

Non-hazardous waste, such as paper and cardboard, glass, aluminum and plastic, should be collected separately and recycled.

Food waste should be segregated and composted.

Infectious and / or hazardous wastes should be identified and segregated according to its category using a color-coded system.

6.3.4 On-site Collection, Packaging, Labelling, Transport and Storage of Waste

Waste will be packaged in suitable containers in order to avoid environmental contamination during storage.

Packaging containers for sharps should be puncture-proof.

Containers must be inert and/or resistant/compatible with the waste they will store, have visible labels indicating the characteristics of the cargo, the date of containerisation, and toxicity and/or potential contamination data, in accordance with national and international labelling standards (where applicable).

Waste will be stored in containers that are in good condition and compatible with the characteristics of the materials in question. Waste storage areas will be properly labelled.

Temporary waste storage will be managed and controlled to safeguard human health and environmental safety.

Waste storage areas should be located within the facility and sized to the quantities of waste generated.

Waste storage areas will be properly identified, signposted and protected with retention basins, ventilated and covered so as to be protected from the sun's rays.

MSDSs must be available at easily accessible points on waste storage sites.

Stored waste will be secured in containers, tied down to prevent spillage while being moved around the facility, and inspected regularly to correct any leaks or labelling problems in a timely manner.

Bins/containers containing waste must be labelled with the following information:

- Waste name;
- Storage date;
- Identification of the waste producer;
- Angolan Waste List Code (LAR, *Lista Angolana de Resíduos*) (Annex X of PD no. 190/12); and
- Identify the hazardousness of waste.

In the specific case of **hazardous waste**, it will be packaged according to specific rules and must at least be contained in a container with the capacity for this purpose:

- Support normal storage and transport operations;
- Keep its contents sealed to prevent leakage;
- Does not form harmful or dangerous substances when in contact with its contents; and
- Be properly labelled with the symbols used internationally.

Containers containing hazardous waste will be identified, labelled and stored in an appropriate place (with a retention basin and ventilated).

Hazardous waste must be separated according to the classes set out in Annex III of PD no. 190/12, and the producing organisation must have at least the technical conditions for packaging it.

The different types of hazardous waste will not be packaged together. Each type of waste will be kept separately. Hazardous waste must be accompanied by its MSDS.

Unless otherwise stipulated by law, hazardous waste must be identified in accordance with the provisions of Annex IV of PD 190/12.

Annex V (Hazardous Waste Identification) of PD no. 190/12 provides a list of symbols that must be used to identify hazardous waste.

Transport waste destined for off-site facilities according to the guidelines for transport of hazardous wastes / dangerous goods in the IFC WBG General EHS Guidelines.

Transport vehicles should be dedicated to waste and the vehicle compartments carrying waste sealed.

6.3.5 Non-Hazardous Waste Management

Non-hazardous waste should be segregated into categories whenever economically feasible.

Non-hazardous waste will be separated from hazardous waste and segregated by type (plastics, glass, metal, generic waste), compacted and suitably packaged so that:

- Maximise the possibilities for recycling or reusing waste;
- Minimising the possibility of contamination of non-hazardous waste by hazardous waste;
- Ensure that waste is properly packaged to prevent the release of dangerous substances into the environment;
- Ensure the correct management of each specific type of waste; and
- Preventing the mixing of incompatible waste, which could result in chemical reactions.

As mentioned, non-hazardous waste will be separated, compacted and stored until it is collected by a company duly licensed by MINAMB for disposal, recycling or reuse.

6.3.6 Hazardous Waste Management

Hazardous waste is waste that contains one or more risk characteristics because it is flammable, explosive, corrosive, toxic, infectious or radioactive, or because it has any other characteristic that constitutes a risk to human health and other living beings and to the quality of the environment, and which has also been approved and considered as such by international treaties or conventions that Angola has ratified.

Proponent must ensure that waste disposal and treatment methods are appropriate to the proven risk they pose to the environment, and must commit to following the best available technology, considering the best relationship between operational safety, cost and environmental benefit.

Hazardous waste (or non-hazardous) may be generated at any of the individual work areas or “remote sites” but will be stored at “consolidation sites”. “Remote sites” will use the closest “consolidation site” during project construction for hazardous waste storage. A remote site is one where hazardous waste (or non-hazardous) is generated but is not routinely staffed and is not adjacent or connected to a secured project site. Waste from remote sites will be handled and transported to a consolidation site in accordance with the applicable guidelines.

Where possible, hazardous materials will be kept in their original containers and the containers will be clearly marked/ labelled with information such as waste type, hazards, accumulation start date, and generator information and the containers will be displayed with appropriate warning signs around hazardous waste storage areas to alert personnel and visitors to the presence of hazardous materials and will be periodically inspected by the assigned personal.

Hazardous waste will be managed by the construction contractor in conformity with Waste Regulation, and EHS Guidelines. The construction contractor will maintain a readily accessible supply of spill control measures, such as absorbent pads; implement secondary containment measures as warranted; and conduct periodic inspections.

6.3.7 Waste Transport and Disposal

Waste shipped to a contractor or transporter will be accompanied by a description containing the information necessary for its safe characterisation and handling.

When collecting hazardous waste, a manifest must be filled in, in quadruplicate, according to the model in Annex VII of Presidential Decree no. 190/12, stating the quantities, quality and destination of the waste chosen.

Hazardous waste may only be removed from the premises of the producing organisations by transport operators previously accredited for this purpose by MINAMB.

Hazardous waste disposal sites must meet specific design requirements to ensure environmental protection and safety, aligning with international guidelines like the World Bank EHS Guidelines and GIIP.

7 HEALTH, SAFETY AND RISK MANAGEMENT

7.1 Pesticides

Pesticide use should be established as part of an Integrated Pest Management (IPM) strategy and a documented Pest Management Plan (PMP).

If pesticide application is warranted on site, users should take the following precautions:

- Train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are not required;
- Review the manufacturer's directions on maximum recommended dosage or treatment, as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose;
- Apply pesticides based on criteria (e.g. field observations, weather data, time of treatment, and dosage) and maintain a pesticide logbook to record such information;
- Avoid the use of pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Classes 1a and 1b;
- Avoid the use of pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Class II if the project host country lacks restrictions on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly;
- Avoid the use of pesticides listed in Annexes A and B of the Stockholm Convention;
- Use only pesticides that are manufactured under license and registered and approved by the appropriate authority and in accordance with the Food and Agriculture Organization's (FAO) International Code of Conduct on the Distribution and Use of Pesticides;
- Use only pesticides that are labeled in accordance with international standards and norms;
- Store pesticides in their original packaging, in a dedicated, dry, cool, frost-free, and well aerated location that can be locked and properly identified with signs, with access limited to authorized people;
- Mixing and transfer of pesticides should be undertaken by trained personnel in ventilated and well lit areas, using containers designed and dedicated for this purpose;
- Containers should not be used for any other purpose;
- Purchase and store no more pesticide than needed and rotate stock;
- Ensure that protective clothing worn during pesticide application is either cleaned or disposed of in an environmentally responsible manner.

7.2 General Safety Practices

Spill prevention and control measures on site include the presence of first aid kits and spill kits.

A comprehensive policy covers equipment and facilities. In addition, all employees should be covered by health insurance, during construction by contractors and during operation.

In terms of health and safety in the workplace, proponent will have employees dedicated to QHSE issues.

Given the nature of the project activities, health and safety precautions are very important. Personal Protective Equipment, including safety helmets, goggles, boots and masks, will be used when appropriate. Fire extinguishers will have to be clearly marked on the premises and identified.

Table 7-1: General safety practices.

Item	Practice	Description
1	**Know the procedures**	All workers are responsible for knowing the correct procedures for reporting accidents, injuries and fires. Workers must know the procedure to follow in each type of emergency and be aware of their role.
2	**Updating and postal procedures**	All existing emergency procedures must be revised as necessary so that they can be kept up to date. Emergency procedures should be posted in various strategic locations throughout the project areas.
3	**Traffic**	Waste storage areas must be clearly indicated. Heavy equipment and vehicles may not exceed 20 km/h within the Project area.
5	**Fire extinguishers and Area Signage**	Fire extinguishers must be provided in all areas where works take place, on construction sites and on all heavy equipment. Each extinguisher must be properly assigned to each possible type of fire. Hazardous areas (electrical rooms, compressor rooms, etc), installations, materials, safety measures, and emergency exits, etc. should be marked appropriately. Signage should be in accordance with international standards and be well known to, and easily understood by workers, visitors and the general public as appropriate
6	**Alert workers**	All workers are expected to be aware of hazards on the premises and to report them. In the event of an emergency, workers should be properly trained to use the emergency alarms available at various locations on the premises to alert all workers.
7	**Location of safety devices**	All workers must be aware of the location of all fire extinguishers, first aid kits, and emergency alarms.
8	**Safety meetings**	Routine safety meetings should be held at the start of each shift with the people responsible for each area. The topics of discussion will be varied and could include daily routine matters, as well as reports of situations that could cause accidents and ways to prevent them, and discussions about the effectiveness of corrective measures taken after any accident has occurred on the premises.
9	**Communication**	The lines of communication between operational and security workers must always be open. Mobile phones, walkie talkie radios or other means of communication must be used, due to the potential lack of network on site for this purpose. This equipment must be kept in good working order at all times.

7.3 OHS Training

A basic occupational training program and specialty courses should be provided, as needed, to ensure that workers are oriented to the specific hazards of individual work assignments. Training should generally be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards.

Workers with rescue and first-aid duties should receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their coworkers. Training would include the risks of becoming infected with blood–borne pathogens through contact with bodily fluids and tissue.

Through appropriate contract specifications and monitoring, the employer should ensure that service providers, as well as contracted and subcontracted labor, are trained adequately before assignments begin.

Provisions should be made to provide OHS orientation training to all new employees to ensure they are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees.

Training should consist of basic hazard awareness, site specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any site-specific hazard or color coding in use should be thoroughly reviewed as part of orientation training.

8 MONITORING AND REPORTING

In order to measure the environmental performance, reporting criteria are established so that information is collected at operations level and analysed through incident reporting, inspection and auditing process.

Proponent will generate a Waste Manifest (Appendix B) to send the waste from the source and copies will be kept by the HSE area. The Waste Manifest can be divided into three parts:

- Part 1 - is filled in by the Waste Producer;
- Part 2 - is completed by the sender of the waste; and
- Part 3 - is filled in by the person receiving the waste.

Contractors will monitor, control and keep up-to-date records of the waste generated, including copies of the delivery certificates provided by the waste management subcontractor responsible for disposal or transport, describing its origin, quantity and type of waste, if applicable.

Article 9(g) states that an exhaustive record will be kept annually of the origin, quantities and types of waste handled, transported, treated, recovered or disposed of, and that it will be kept for five (5) years. *A Waste Tracking Register will be kept at* Proponent *offices.*

Article 11(2) stipulates that all entities responsible for waste management must immediately inform MINAMB of the occurrence of any cases of accidental waste spillages, through their competent bodies.

9 REFERENCES

Agência Nacional de Resíduos (2023). “O Estado Actual da Gestão de Resíduos em Angola”. Conferência Nacional dos Resíduos, “Reutilizar o Passado, Reciclar o presente e Salvar o Futuro”, ENAPP, Corimba, Luanda. Janeiro 2023.

Japan International Cooperation Agency (JICA), Yachiyo Engineering Ltd, Japan Environmental Sanitation Center (2022). “Data Collection Survey on Municipal Solid Waste Management in African Cities Final Report”. March, 2022.

10 APPENDICES

Appendix A - Annual Management Report – Model

APPENDIX VIII – ANNUAL PRODUCTION OF HAZARDOUS WASTES (PD 190/12)

Information on Production for the Year _____
Institution_____
Address_____
City_____Province_____
Tel. No._____Fax_____E-mail_____

Contact person: _____

Type of wastes	**Quantity**	**Characteristics**		**Destiny**	**Form of production (normal, accidental or cleaning) *1**
		H	**Y**		

H - Explosive hazardous wastes or inflammable; Y - Hazardous wastes non-explosive, non-inflammable.

Total amount produced _____

Filled in_____

Date____/_____/_____

Signature_____

***1 Nota**: in case of an accident and spills, provide data on the location where the accident occurred and measures adopted

Appendix B - Waste Manifest Template

APPENDIX VII - NOTE FOR THE TRANSPORT AND DISPOSAL OF HAZARDOUS WASTE (DP 190/12)

Wastes producer **A**	**Register Number of the Company**	

Institution name _____

Address:

_____

Telephone: _____ E-mail: _____

Waste name _____

Waste code

H	**Y**

H -Explosive hazardous wastes or inflammable.

Y – Hazardous wastes non-explosive, non-inflammable.

Waste main components

_____

Type of wastes:

Solid_____ Sludge_____ Líquido _____

Type of containers (bins)

Containers: _____

Drums: _____

Cans (25 l): _____

Other: _____

Quantity (kg/m3) _____

Name and address of final deposition

_____

Delivery date _____/_____/_____

Signature of the responsible person _____

Wastes producer B	Register Number of the Company	

Name _____

Address _____

Telephone: _____ Fax/email:_____

Driver name _____ Vehicle plate_____

Temporary storage: No _____Yes _____

Address _____

Reception date _____/_____/_____

Confirm driver signature _____

Storage / Treatment / Recovery / Depoisition / facility operator C	Register Number of the Company	

Name of the company _____

Address _____

Telephone: _____ Fax/email:_____

Type of Operation

Storage_____ Regroup _____ Recovery _____

Landfill _____Safe landfill_____

Physical/chemical treatment _____Incineration_____

Other _____

Quantity received (kg) _____

Reception date _____/_____/_____

Signature _____

Appendix C - MINAMB Certification of the consultancy company

REPÚBLICA DE ANGOLA

MINISTÉRIO DO AMBIENTE

GABINETE JURÍDICO E INTERCÂMBIO

CERTIFICADO DE CONSULTORIA AMBIENTAL

N.º 2234380245

O Gabinete Jurídico e Intercâmbio do Ministério do Ambiente, atesta que foram cumpridas todas as formalidades legais conducentes ao Registo Técnico da Sociedade de Consultoria Ambiental GEOLAB-ENGENHARIA E CONSULTORIA, LDA, nos termos do Decreto Executivo nº 86/12, de 23 de Fevereiro de 2012, que aprova o Regulamento sobre o Registo Técnico de Sociedade de Consultoria Ambiental.

Emitida em,	**Válida até,**
25 de Janeiro de 2024	24 de Janeiro de 2025

Assinatura

RUI LEONEL BAPTISTA FERREIRA

(DIRECTOR DO GABINETE JURÍDICO E INTERCÂMBIO)

A autenticidade deste documento poderá ser verificada através dos passos a seguir:
1. Aceda ao Portal MINAMB (https://sia.minamb.gov.ao/validacaodocumentos)
2. Introduza o código **RCCONST-NTEwNjgyNjQ=** no campo "Código de Validação"
3. Clique em "Pesquisar"

Número do Certificado: **2234380245**

Appendix D - Official Gazette of RNT Company Constitution

Quinta-feira, 20 de Novembro de 2014 I Série – N.º 206

DIÁRIO DA REPÚBLICA

ÓRGÃO OFICIAL DA REPÚBLICA DE ANGOLA

Preço deste número - Kz: 310,00

Toda a correspondência, quer oficial, quer relativa a anúncio e assinaturas do «Diário da República», deve ser dirigida à Imprensa Nacional - E.P., em Luanda, Rua Henrique de Carvalho n.º 2, Cidade Alta, Caixa Postal 1306, www.imprensanacional.gov.ao - End. teleg.: «Imprensa».

ASSINATURA

	Ano
As três séries	Kz: 470 615.00
A 1.ª série	Kz: 277 900.00
A 2.ª série	Kz: 145 500.00
A 3.ª série	Kz: 115 470.00

O preço de cada linha publicada nos Diários da República 1.ª e 2.ª série é de Kz: 75.00 e para a 3.ª série Kz: 95.00, acrescido do respectivo imposto do selo, dependendo a publicação da 3.ª série de depósito prévio a efectuar na tesouraria da Imprensa Nacional - E. P.

IMPRENSA NACIONAL - E.P.
Rua Henrique de Carvalho n.º 2
e-mail: imprensanacional@imprensanacional.gov.ao
Caixa Postal N.º 1306

CIRCULAR

Excelentíssimos Senhores,

Temos a honra de convidá-los a visitar a página da *internet* no *site* www.imprensanacional.gov.ao, onde poderá *online* ter acesso, entre outras informações, aos sumários dos conteúdos do *Diário da República* nas três Séries.

Havendo necessidade de se evitarem os inconvenientes que resultam para os nossos serviços do facto de as respectivas assinaturas no *Diário da República* não serem feitas com a devida oportunidade;

Para que não haja interrupção no fornecimento do *Diário da República* aos estimados clientes, temos a honra de informá-los que até 15 de Dezembro de 2014 estarão abertas as respectivas assinaturas para o ano 2015, pelo que deverão providenciar a regularização dos seus pagamentos junto dos nossos serviços.

1. Enquanto não for ajustada a nova tabela de preços a cobrar pelas assinaturas para o fornecimento do *Diário da República* para o ano de 2015, passam, a título provisório, a ser cobrados os preços em vigor, acrescidos do Imposto de Consumo de 2% (dois porcento):

As 3 séries ..... Kz: 470 615,00
1.ª série ..... Kz: 277 900,00
2.ª série ..... Kz: 145 500,00
3.ª série ..... Kz: 115 470,00

2. Tão logo seja publicado o preço definitivo os assinantes terão o prazo de 45 (quarenta e cinco) dias para liquidar a diferença apurada, visando assegurar a continuidade do fornecimento durante o período em referência.

3. As assinaturas serão feitas apenas em regime anual.

4. Aos preços mencionados no n.º 1 acrescer-se-á um valor adicional para portes de correio por via normal das três séries, para todo o ano, no valor de Kz: 95.975,00 que poderá sofrer eventuais alterações em função da flutuação das taxas a praticar pela Empresa Nacional de Correios de Angola - E.P. no ano de 2015.

5. Os clientes que optarem pela recepção dos *Diários da República* através do correio deverão indicar o seu endereço completo, incluindo a Caixa Postal, a fim de se evitarem atrasos na sua entrega, devolução ou extravio.

Observações:

a) Estes preços poderão ser alterados se houver uma desvalorização da moeda nacional, numa proporção superior à base que determinou o seu cálculo ou outros factores que afectem consideravelmente a nossa estrutura de custos;

b) As assinaturas que forem feitas depois de 15 de Dezembro de 2014 sofrerão um acréscimo aos preços em vigor de uma taxa correspondente a 15%.

SUMÁRIO

Presidente da República

Decreto Presidencial n.º 304/14:

Aprova a abertura de crédito adicional no montante de AKz: 1.077 987.145,00 para pagamento das despesas relacionadas com compromissos de caracter estratégico, o crédito é afecto à Unidade Orçamental da Secretária Geral da Presidência da República.

Decreto Presidencial n.º 305/14:

Aprova o processo de extinção das empresas públicas ENE — Empresa Nacional de Electricidade e EDEL — Empresa de Distribuição de Electricidade e cria novas empresas públicas para o sector eléctrico: a Rede Nacional de Transporte de Electricidade, E.P., abreviadamente RNT - E.P., a Empresa Pública de Produção de Electricidade, E.P., abreviadamente PRODEL - E.P. e a Empresa Nacional de Distribuição de Electricidade, E.P., abreviadamente ENDE - E.P. e aprova os seus

Decreto Presidencial n.º 305/14
de 20 de Novembro

Considerando que a Estratégia de Desenvolvimento do Sector Eléctrico e o Saneamento Financeiro das Empresas do Sector, aprovadas pelas Resoluções n.º 21/02, de 1 de Outubro, e n.º 13/03, de 29 de Abril, deram início ao processo de separação de contas, consistindo na reestruturação do negócio global e da sua estrutura organizativa através da criação de unidades de negócio (Produção, Transporte e Distribuição), com vista a criação de condições para a separação jurídica das referidas áreas de negócio do Sector;

Tendo em conta que a Política e a Estratégia de Segurança Energética Nacional, aprovada pelo Decreto Presidencial n.º 256/11, de 29 de Novembro, recomenda a redefinição do enquadramento institucional do subsector eléctrico, com base no reforço das funções de regulação, na clarificação de responsabilidades, na captação dos recursos e no reforço das valências dos operadores, através da criação de entidades públicas únicas especializadas em cada uma das etapas da cadeia de valor de produção, transporte e distribuição;

Havendo necessidade de garantir o aumento da capacidade do sistema até 2025 e de assegurar a sustentabilidade económico-financeira das empresas, através da aplicação de tarifas que reflictam de forma mais realista os custos das operadoras e permitam a progressiva redução de subsídios nas tarifas ao cliente final.

O Presidente da República decreta, nos termos da alínea d) do artigo 120.º e do n.º 3 do artigo 125.º, ambos da Constituição da República, o seguinte:

ARTIGO 1.º
(Objecto)

O presente Diploma tem por objecto a aprovação do processo de extinção das empresas públicas ENE — Empresa Nacional de Electricidade e EDEL — Empresa de Distribuição de Electricidade e de criação de novas empresas públicas para o sector eléctrico.

ARTIGO 2.º
(Extinção)

São extintas as empresas públicas ENE — Empresa Nacional de Electricidade, E.P. e EDEL — Empresa de Distribuição de Electricidade, E.P.

ARTIGO 3.º
(Rede Nacional de Transporte de Electricidade, E.P.)

1. É criada a empresa Rede Nacional de Transporte de Electricidade, E.P., abreviadamente RNT, E.P., dedicada exclusivamente à gestão do sistema, à operação do mercado (comprador único) e à gestão da rede de transporte e aprovado o respectivo estatuto orgânico constante do Anexo I do presente Diploma e que dele é parte integrante.

2. O património da Rede Nacional de Transporte de Electricidade, E.P. é o resultante da incorporação dos activos do segmento de Transporte da extinta ENE — Empresa Nacional de Electricidade, E.P, bem como dos activos de Transporte que se encontrem em operação e cuja propriedade seja detida pelo GAMEK — Gabinete de Aproveitamento do Médio Kwanza.

3. É transferida para a Rede Nacional de Transporte de Electricidade, E.P., a universalidade dos direitos e obrigações resultantes do segmento de Transporte da extinta ENE — Empresa Nacional de Electricidade, E.P. e dos activos de Transporte do GAMEK — Gabinete de Aproveitamento do Médio Kwanza, incluindo os saldos das contas bancárias afectas a este segmento de negócio.

4. A transferência opera-se automaticamente a partir da data da entrada em vigor do presente Decreto Presidencial, que constitui título bastante para todos os efeitos legais.

5. Os trabalhadores afectos ao segmento de Transporte da extinta ENE — Empresa Nacional de Electricidade, E.P., à data da entrada em vigor deste Diploma, transitam automaticamente para a Rede Nacional de Transporte de Electricidade, E.P., com todas as obrigações e direitos adquiridos.

ARTIGO 4.º
(Empresa Pública de Produção de Electricidade, E.P.)

1. É criada a Empresa Pública de Produção de Electricidade, E.P, abreviadamente PRODEL, E.P., responsável pela exploração, em regime de serviço público, dos centros electroprodutores e aprovado o respectivo estatuto orgânico constante do Anexo II do presente Diploma e que dele é parte integrante.

2. O património da Empresa Pública de Produção de Electricidade, E.P. é o resultante da incorporação dos activos do segmento de Produção da extinta ENE — Empresa Nacional de Electricidade - E.P. e dos activos do GAMEK — Gabinete de Aproveitamento do Médio Kwanza referentes ao Aproveitamento Hidroeléctrico de Capanda.

3. É transferida para a Empresa Pública de Produção de Electricidade, E.P., a universalidade dos direitos e obrigações resultantes do segmento de Produção da extinta ENE — Empresa Nacional de Electricidade, E.P., e de toda a infra-estrutura de produção existente, incluindo o Aproveitamento Hidroeléctrico de Capanda e todos os seus activos, incluindo os saldos das contas bancárias afectas a este segmento de negócio.

4. A transferência opera-se automaticamente a partir da data da entrada em vigor do presente Decreto Presidencial, que constitui título bastante para todos os efeitos legais.

5. Os trabalhadores afectos ao segmento de Produção da extinta ENE — Empresa Nacional de Electricidade, E.P. e de toda a infra-estrutura de produção do Empreendimento Hidroeléctrico de Capanda, afectos ao Gabinete de Aproveitamento do Médio Kwanza, à data da entrada em vigor deste Diploma, transitam automaticamente para a Empresa Pública de Produção de Electricidade, E.P., com todas as obrigações e direitos adquiridos.

6. A Empresa Pública de Produção de Electricidade, E.P. deve assumir a posição jurídica, à data da entrada em vigor deste Diploma, em relação a todos os actos praticados e contratos celebrados pelo segmento de Produção da extinta ENE — Empresa Nacional de Electricidade, E.P., bem como os referentes à infra-estrutura de produção do Aproveitamento Hidroeléctrico de Capanda do GAMEK — Gabinete de Aproveitamento do Médio Kwanza.

ARTIGO 5.º
(Empresa Nacional de Distribuição de Electricidade, E.P.)

1. É criada a Empresa Nacional de Distribuição de Electricidade, E.P., abreviadamente ENDE, E.P., dedicada exclusivamente à comercialização e distribuição de energia eléctrica, no âmbito do Sistema Eléctrico Público e aprovado o respectivo estatuto orgânico constante do Anexo III do presente Diploma e que dele é parte integrante.

2. O património da Empresa Nacional de Distribuição de Electricidade-E.P. é o resultante da incorporação dos activos da extinta EDEL — Empresa de Distribuição de Electricidade, E.P. e do segmento de Distribuição da extinta ENE — Empresa Nacional de Electricidade, E.P.

3. É transferida para a Empresa Nacional de Distribuição de Electricidade, E.P., a universalidade dos direitos e obrigações resultantes do segmento de Distribuição da extinta ENE — Empresa Nacional de Electricidade, E.P. e da extinta EDEL — Empresa de Distribuição de Electricidade, E.P., incluindo os saldos das contas bancárias afectas a este segmento de negócio.

4. A transferência opera-se automaticamente a partir da data da entrada em vigor do presente Decreto Presidencial, que constitui título bastante para todos os efeitos legais.

5. Os trabalhadores afectos à extinta EDEL — Empresa de Distribuição de Electricidade, E.P. e ao segmento de Distribuição da extinta ENE — Empresa Nacional de Electricidade, E.P., à data da entrada em vigor deste Diploma, transitam automaticamente para a Empresa Nacional de Distribuição de Electricidade, E.P., com todas as obrigações e direitos adquiridos.

6. Os trabalhadores das áreas corporativas da extinta ENE — Empresa Nacional de Electricidade, E.P transitam automaticamente, na sua globalidade, para as três novas empresas públicas criadas pelo presente Decreto Presidencial, sendo a alocação efectuada de acordo com as necessidades de cada empresa.

7. A Empresa Nacional de Distribuição de Electricidade, E.P. deve assumir a posição jurídica, à data da entrada em vigor deste Diploma, em relação a todos os actos praticados e contratos celebrados pela extinta EDEL — Empresa de Distribuição de Electricidade, E.P. e pelo segmento de Distribuição da extinta ENE — Empresa Nacional de Electricidade, E.P.

ARTIGO 6.º
(Processo de transição)

O Ministro da Energia e Águas deve praticar os actos que se mostrem necessários à condução do processo de transição, em conformidade com legislação em vigor, até a tomada de posse dos Conselhos de Administração das Empresas criadas pelo presente Diploma.

ARTIGO 7.º
(Revogação)

São revogados o Decreto n.º 24/80, de 20 de Março, que cria a Empresa Nacional de Electricidade, ENE, e Decreto n.º 29/98, de 4 de Setembro, que aprova o seu Estatuto Orgânico, o Decreto n.º 33/99, de 19 de Novembro, que constitui e aprova o Estatuto Orgânico da Empresa de Distribuição de Electricidade, EDEL, bem como toda a legislação que contrarie o disposto no presente Decreto Presidencial.

ARTIGO 8.º
(Dúvidas e omissões)

As dúvidas e omissões resultantes da interpretação e aplicação do presente Diploma são resolvidas pelo Presidente da República.

ARTIGO 9.º
(Entrada em vigor)

O presente Decreto Presidencial entra em vigor na data da sua publicação.

Publique-se.

Luanda, aos 14 de Novembro de 2014.

O Presidente da República, JOSÉ EDUARDO DOS SANTOS.

ANEXO I
a que se refere o artigo 3.º

ESTATUTO ORGÂNICO DA REDE NACIONAL DE TRANSPORTE DE ELECTRICIDADE, E.P.

CAPÍTULO I
Disposições Gerais

ARTIGO 1.º
(Denominação)

A Rede Nacional de Transporte de Electricidade, abreviadamente designada por RNT - E.P., é uma empresa de interesse estratégico, dotada de personalidade jurídica e de autonomia administrativa, financeira, patrimonial e de gestão.

ARTIGO 2.º
(Regime jurídico)

A Rede Nacional de Transporte de Electricidade rege-se pelo presente Estatuto, pelas normas complementares de execução, pela legislação aplicável às empresas públicas e no que não estiver especialmente regulado, pelas normas de Direito Comercial e demais normas de direito privado em vigor.

ARTIGO 3.º
(Sede e representações)

1. A Rede Nacional de Transporte de Electricidade tem a sua sede em Luanda, podendo, por deliberação do Conselho de Administração, estabelecer e encerrar filiais, sucursais, agências ou outras formas de representação em qualquer parte do território nacional ou no estrangeiro, assim como descentralizar os seus serviços técnicos e administrativos, de acordo com as necessidades da sua actividade.

2. O estabelecimento de filiais, sucursais ou de outras formas de representação da empresa, em qualquer parte do território nacional ou no estrangeiro, carece de observância prévia das disposições legais aplicáveis.

ARTIGO 4.º
(Objecto social)

1. A Rede Nacional de Transporte de Electricidade tem por objecto principal o transporte de energia eléctrica através da exploração da Rede Nacional de Transporte, que compreende a rede de Muito Alta Tensão (MAT), a rede de interligação, as instalações do despacho nacional e os bens e direitos conexos, em paralelo com a função de operador do mercado (comprador único), nos termos da Concessão, da Lei Geral de Electricidade e seus Regulamentos.

2. Acessoriamente pode a empresa exercer outras actividades industriais ou comerciais, quer directamente, quer em associação com terceiros, por decisão do seu Conselho de Administração, desde que os objectivos não prejudiquem o seu objecto social.

3. A Rede Nacional de Transporte de Electricidade pode, na prossecução do seu objecto principal e por decisão do Conselho de Administração, propor a constituição de novas empresas e a aquisição da totalidade ou parte do capital de empresas já constituídas ou a constituir.

4. A empresa pode, igualmente, nos termos da legislação em vigor, e por decisão do Conselho de Administração, estabelecer com entidades nacionais ou estrangeiras as formas de associação ou cooperação que melhor possibilitem a realização do seu objecto social.

5. O exercício de outras actividades, bem como a constituição de novas empresas ou o estabelecimento de associações, nos termos dos n.os 2, 3 e 4 do presente artigo, devendo ser procedidos da autorização prévia do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade.

ARTIGO 5.º
(Capital estatutário)

1. O capital estatutário da Rede Nacional de Transporte de Electricidade, realizado por segregação contabilística da ENE — Empresa Nacional de Electricidade-E.P., é de AKz: 11.579.154.838,23 equivalente a USD 118.893.479,26, sendo o restante capital próprio constituído por outros fundos próprios no valor de AKz: 278.440.465.658,67 equivalente a USD 2.858.995.858,54.

2. O capital estatutário pode ser reforçado com dotações do Estado, por meio de incorporação de reservas ou de outros fundos próprios, mediante prévia autorização do Ministro responsável pelo Sector Empresarial Público e do Ministro responsável pelo Sector da Actividade sob proposta do Conselho de Administração, acompanhada de parecer do Conselho Fiscal, nos termos da legislação em vigor.

CAPÍTULO II
Organização e Funcionamento

SECÇÃO I
Dos Órgãos em Geral

ARTIGO 6.º
(Órgãos)

São órgãos da Rede Nacional de Transporte de Electricidade - E.P.:

a) O Conselho de Administração;

b) O Conselho Fiscal.

SECÇÃO II
Dos Órgãos em Especial

SUBSECÇÃO I
Conselho de Administração

ARTIGO 7.º
(Natureza e composição)

1. O Conselho de Administração é o órgão de gestão da Rede Nacional de Transporte de Electricidade que responde perante o Governo, sem prejuízo da responsabilidade civil em que os seus membros se constituem perante a empresa ou terceiros e da responsabilidade criminal em que incorram.

2. O Conselho de Administração é composto por sete membros, cinco executivos e dois não executivos, sendo um deles o presidente, cuja designação deve constar do acto de nomeação.

3. Os membros do Conselho de Administração são nomeados e exonerados pelo Titular do Poder Executivo.

4. A nomeação dos membros do Conselho de Administração deve observar os critérios e requisitos estabelecidos no Estatuto do Gestor Público.

ARTIGO 8.º
(Competências do Conselho de Administração)

1. O Conselho de Administração é investido de poderes para agir em nome da empresa, devendo exercê-los nos limites da lei e do presente Estatuto.

2. Compete ao Conselho de Administração o exercício de todos os poderes necessários para assegurar a gestão e o desenvolvimento da empresa e a administração do seu património.

3. Cabe especialmente ao Conselho de Administração, sem prejuízo dos poderes da Tutela:

a) Aprovar os objectivos e as políticas de gestão da empresa;

b) Aprovar os planos de actividade e financeiros anuais e plurianuais e os orçamentos anuais, bem como proceder às necessárias alterações ou actualizações;

c) Representar a empresa em juízo e fora dele, activa ou passivamente, bem como confessar ou transigir em quaisquer acções;

d) Aprovar os relatórios e contas anuais e submetê-los à homologação das entidades competentes;

e) Aprovar o regulamento de funcionamento do Conselho de Administração;

f) Aprovar a organização técnico-administrativa da empresa e as normas de funcionamento interno;

g) Aprovar a participação ou associação com outras empresas, bem como o exercício de novas actividades ou a cessação das existentes, nos termos da legislação em vigor;

h) Aprovar a aquisição e a alienação de bens e de participações financeiras, quando as mesmas não estejam previstas nos orçamentos anuais aprovados, e dentro dos limites definidos pela lei ou pelos Estatutos;

i) Aprovar as normas relativas ao pessoal;

j) Submeter à aprovação ou autorização do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade os actos e documentos que, nos termos da lei ou do estatuto, o devam ser;

k) Gerir e praticar os actos relativos ao objecto da empresa;

l) Participar com as entidades competentes na aprovação das propostas de preços ou tarifas a serem praticadas pela empresa;

m) Decidir sobre a contratação de empréstimos de curto, médio ou longo prazos;

n) Constituir mandatários com os poderes que julgar convenientes;

o) Exercer as demais competências que decorram da lei.

ARTIGO 9.º
(Delegação de poderes)

1. O Conselho de Administração pode, dentro dos limites legais e estatutários, delegar algumas das suas competências a um ou mais dos seus membros, através de:

a) Designação de administradores-delegados;

b) Nomeação de responsáveis;

c) Procuração para actos específicos.

2. O previsto no número anterior não prejudica o direito de avocação das competências delegadas.

ARTIGO 10.º
(Presidente do Conselho de Administração)

Compete ao Presidente do Conselho de Administração:

a) Representar a empresa em juízo e fora dele, activa e passivamente;

b) Coordenar a actividade;

c) Zelar pela correcta aplicação das deliberações;

d) Convocar e presidir às reuniões;

e) Nomear, reconduzir ou exonerar os responsáveis da empresa, sob proposta do Conselho de Administração;

f) Assegurar as relações com o Governo;

g) Exercer as demais competências que decorram da lei ou lhe sejam delegadas pelo Conselho de Administração.

ARTIGO 11.º
(Pelouros)

1. Os pelouros dos administradores são os definidos no acto de nomeação, os quais correspondem a uma ou mais áreas de actividade da empresa, visando a necessária desconcentração de poderes no acompanhamento das actividades da empresa.

2. Compete, especialmente, aos administradores, nos termos do número anterior:

a) Coordenar as actividades das respectivas áreas e zelar pela correcta aplicação, a respeito, das deliberações do Conselho de Administração;

b) Acompanhar as actividades da empresa e propor medidas tendentes à maximização dos rendimentos e outras que entendam convenientes;

c) Exercer as demais competências que lhes sejam atribuídas pelo Conselho de Administração.

ARTIGO 12.º
(Reuniões e deliberações do Conselho de Administração)

1. O Conselho de Administração reúne-se ordinariamente uma vez por mês e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa, a requerimento da maioria dos seus membros ou a pedido do Conselho Fiscal.

2. As deliberações do Conselho de Administração devem ser tomadas na presença da maioria dos seus membros, em exercício de funções, e por maioria simples de votos.

3. Os membros do Conselho de Administração não podem votar em assuntos que tenham, por conta própria ou de terceiros, interesse em conflito com a empresa.

4. Poderão estar presentes às reuniões do Conselho de Administração outras entidades, especialmente, convidadas para o efeito, mas sem direito a voto.

5. Poderão igualmente assistir às reuniões do Conselho de Administração os membros do Conselho Fiscal.

6. Os membros do Conselho de Administração têm o dever especial de não divulgar os assuntos debatidos no Conselho ou factos inerentes à empresa ou empresas participadas, de que tenham conhecimento no exercício das suas funções, devendo, igualmente, conservar a documentação, em lugar seguro, com a classificação de confidencial.

7. De todas as reuniões do Conselho de Administração são lavradas actas, em livros próprios, as quais são, obrigatoriamente, assinadas por todos os membros que delas hajam participado e das quais devem constar:

a) Os assuntos discutidos;

b) A súmula das decisões;

c) As deliberações tomadas;

d) Os votos vencidos, quando os houver.

ARTIGO 13.º
(Mandato)

O mandato dos membros do Conselho de Administração tem a duração de cinco anos, renovável por uma ou mais vezes, continuando o exercício de funções até a efectiva substituição ou declaração de cessação de funções.

ARTIGO 14.º
(Modo de obrigar a empresa)

1. A empresa vincula-se, perante terceiros, pelos actos do Conselho de Administração, quando praticados em seu nome, em observância das suas competências, nos termos dos respectivos regulamentos, ou de qualquer mandatário destes, legalmente constituído e dentro dos poderes fixados no presente Estatuto.

2. A empresa obriga-se pelas assinaturas de dois membros do Conselho de Administração, sendo um deles o presidente, ou de dois administradores especialmente autorizados pelo Conselho de Administração, ou de um procurador, mandatado, especialmente, para o efeito, pelo Conselho de Administração.

3. Em assuntos de mero expediente, basta a assinatura de um administrador ou de um responsável da empresa.

ARTIGO 15.º
(Responsabilidade dos administradores)

1. Os administradores da empresa são responsáveis civilmente perante esta pelos prejuízos causados por actos ou omissões praticados com a preterição dos deveres legais ou estatutários, salvo prova em contrário.

2. Não são responsáveis, pelo prejuízo causado em execução de uma deliberação do Conselho de Administração, os administradores que nela não tenham participado ou hajam votado vencidos.

3. Os administradores são responsáveis pela vigilância dos seus pares com poderes de gestão e de quaisquer outros responsáveis da empresa e, em consequência, pelos prejuízos causados pelos actos ou omissões destes, quando, tendo deles conhecimento ou da intenção de os praticar, não provoquem imediata intervenção do Conselho de Administração para tomar as medidas julgadas adequadas às circunstâncias.

4. O parecer do Conselho Fiscal não exonera os administradores da responsabilidade.

5. O disposto nos números anteriores não exclui a responsabilidade criminal ou disciplinar em que incorram os gestores da empresa, nos termos da legislação em vigor.

ARTIGO 16.º
(Remuneração dos membros do Conselho de Administração)

1. As remunerações dos membros do Conselho de Administração são fixadas por diploma específico, nos termos das disposições conjugadas do n.º 3 do artigo 36.º e alínea d) do n.º 3 do artigo 44.º da Lei de Bases do Sector Empresarial Público.

2. Sem prejuízo do número anterior, cabe ao Titular do Poder Executivo, ou a quem delegar, nos termos da lei, fixar, as remunerações acessórias para os membros do Conselho de Administração, em função dos resultados da empresa.

SUBSECÇÃO II
Conselho Fiscal

ARTIGO 17.º
(Natureza e composição)

1. O Conselho Fiscal é o órgão de fiscalização e controlo da actividade da Empresa Nacional de Distribuição de Electricidade, composto por três membros, nomeados por Despacho Conjunto do Ministro responsável pelo Sector Empresarial Público e das Finanças.

2. Um dos membros do Conselho Fiscal, cuja designação consta do acto de nomeação, é o presidente, sendo vogais os outros dois.

3. O Presidente do Conselho Fiscal é proposto pelo Ministro das Finanças e os vogais são propostos, um pelo Ministro responsável pelo Sector Empresarial Público e outro pelo Ministro que Tutela o Sector da Actividade.

4. As gratificações devidas aos membros do Conselho Fiscal são fixadas por diploma específico, nos termos da lei.

ARTIGO 18.º
(Competências do Conselho Fiscal)

1. Ao Conselho Fiscal compete o seguinte:

a) Fiscalizar a gestão e o cumprimento das normas reguladoras da actividade da empresa;

b) Emitir parecer sobre o orçamento e as operações financeiras da empresa;

c) Certificar os valores patrimoniais pertencentes à empresa ou por ela detidos, como garantia, depósito ou a qualquer título;

d) Emitir em data legalmente estabelecida, pareceres sobre os documentos de prestação de contas da empresa, designadamente o relatório e contas de exercício;

e) Pronunciar-se sobre quaisquer assuntos que lhe sejam submetidos pelos órgãos de gestão da empresa;

f) Verificar os critérios valorimétricos utilizados pela empresa, os quais possam conduzir a correcta avaliação do património e dos resultados;

g) Proceder à verificação regular dos fundos e valores patrimoniais existentes e fiscalizar a escrituração da contabilidade da empresa;

h) Elaborar relatórios anuais sobre a sua acção de fiscalização e submetê-los à aprovação dos Ministros da Energia, das Finanças e da Economia;

i) Participar aos órgãos competentes qualquer irregularidade de que tenha conhecimento;

j) Solicitar a convocação de reunião extraordinária do Conselho de Administração, sempre que o entenda conveniente;

k) Pronunciar-se sobre quaisquer outros assuntos de interesse da empresa.

2. Os pareceres do Conselho Fiscal deverão ser emitidos no prazo de 30 dias a partir da data da recepção dos documentos que lhe dão suporte.

3. Sempre que o julgue necessário, para o correcto desempenho das suas competências, o Conselho Fiscal pode fazer-se assistir por auditores externos contratados pela empresa.

ARTIGO 19.º
(Reuniões e deliberações do Conselho Fiscal)

1. O Conselho Fiscal reúne-se ordinariamente uma vez por trimestre e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa ou solicitação fundamentada de qualquer dos vogais.

2. O Conselho Fiscal pode mediante solicitação do seu presidente reunir-se com o Conselho de Administração, sempre que o julgue necessário ou a convite do presidente deste órgão.

3. O Conselho Fiscal apenas pode deliberar validamente na presença da maioria simples dos seus membros em exercício de funções.

4. As deliberações são tomadas por maioria de votos dos membros presentes, tendo o presidente ou quem o substituir voto de qualidade, em caso de empate na votação.

5. Os membros do Conselho Fiscal não podem votar em assuntos em que tenham, por conta própria ou de terceiros, interesses em conflito com a empresa.

6. De todas as reuniões são lavradas actas, em livros próprios, que são assinadas, obrigatoriamente, por todos os membros que delas tenham participado, das quais devem constar:

a) Os assuntos discutidos;
b) A súmula das discussões;
c) As deliberações tomadas;
d) Os votos vencidos, quando existam.

ARTIGO 20.º
(Incompatibilidades)

1. Não podem ser nomeados membros do Conselho Fiscal da empresa:

a) Os que exerçam funções na gestão da empresa ou as tenham exercido nos dois anos precedentes;
b) Os que prestam serviços remunerados com carácter permanente à empresa;
c) Os que exercem funções de gestão em empresas ou sociedades concorrentes ou associadas;
d) Os interditos, os inabilitados, insolventes, falidos ou inibidos do exercício das funções públicas;
e) Os cônjuges, parentes e afins na linha recta de pessoas impedidas, nos termos das alíneas a), b) e c).

2. A superveniência de alguns dos factos indicados nas alíneas do número anterior implica a caducidade da nomeação.

3. A nomeação de qualquer membro do Conselho Fiscal da empresa, para o exercício de funções de direcção na empresa, implica, igualmente, a caducidade da sua anterior nomeação como membro do Conselho Fiscal.

ARTIGO 21.º
(Poderes)

Para o desempenho estrito das suas funções, os membros do Conselho Fiscal podem, conjunta ou separadamente:

a) Obter dos serviços competentes a apresentação, para exame e verificação, os livros, registos e outros documentos da empresa, bem como verificar a existência de quaisquer valores, nomeadamente dinheiro, títulos, mercadorias e outros bens;
b) Obter dos órgãos de gestão ou de qualquer dos seus membros as informações ou esclarecimentos sobre a actividade e funcionamento da empresa ou sobre qualquer dos seus negócios;
c) Solicitar a terceiros, que tenham realizado operações com ou por conta da empresa, as informações de que necessitem para esclarecimento dessas operações;
d) Assistir, sempre que julguem conveniente, às reuniões do Conselho de Administração.

ARTIGO 22.º
(Deveres)

1. Constituem deveres gerais dos membros do Conselho Fiscal:

a) Exercer uma fiscalização conscienciosa e imparcial;
b) Guardar segredo dos factos de que tenham conhecimento em razão das suas funções ou por causa delas, sem prejuízo da obrigação de participar às autoridades os factos ilícitos de que tenham conhecimento;
c) Informar o Conselho de Administração de todas as verificações, fiscalizações e diligências que tenham desenvolvido e dos respectivos resultados;
d) Informar as entidades competentes de qualquer irregularidade e inexactidão verificadas e sobre os esclarecimentos que tenham obtido;
e) Participar das reuniões do Conselho Fiscal e assistir às reuniões conjuntas para as quais sejam convocados ou em que se apreciem as contas de exercício.

2. É proibida a divulgação, pelos membros do Conselho Fiscal, a divulgação de segredos comerciais ou industriais da empresa, de que tenham tomado conhecimento no desempenho das suas funções.

ARTIGO 23.º
(Mandato)

1. O mandato dos membros do Conselho Fiscal tem a duração de cinco anos, renovável por uma ou duas vezes.

2. O mandato dos membros do Conselho Fiscal pode ser suspenso ou revogado, por razões devidamente fundamentadas, por Despacho Conjunto dos Ministro responsável pelo Sector Empresarial Público e das Finanças.

CAPÍTULO III
Intervenção do Governo

ARTIGO 24.º
(Intervenção)

A intervenção do Governo na Rede Nacional de Transporte de Electricidade é exercida pelos órgãos competentes, nos termos da lei.

ARTIGO 25.º
(Superintendência)

A superintendência da Rede Nacional de Transporte de Electricidade é exercida pelo Titular do Poder Executivo, ou pelo Ministro com poderes delegados para o efeito, competindo-lhes, em especial, nos termos da legislação em vigor:

a) Fixar os objectivos estratégicos para a actividade da empresa e o enquadramento geral no qual ela se deve desenvolver, de modo a assegurar a sua

harmonização com as políticas globais e sectoriais do Governo e com o plano macro-económico nacional;

b) Regulamentar o exercício da actividade do ramo a que a empresa se deve subordinar e fiscalizar o seu cumprimento;

c) Analisar as informações técnicas, económicas e financeiras sobre a actividade da empresa, prestadas regularmente por esta e tomar as medidas adequadas, nos termos da lei;

d) Exercer as demais competências que decorram da lei.

ARTIGO 26.º
(Órgãos da Administração Local do Estado)

O exercício do órgão da Administração Local do Estado, onde a Rede Nacional de Transporte de Electricidade é concessionária ou licenciada, consiste na compatibilização dos planos e programas da empresa com os planos de desenvolvimento da respectiva área de jurisdição.

CAPÍTULO IV
Gestão Patrimonial e Financeira

SECÇÃO I
Gestão Patrimonial

ARTIGO 27.º
(Património da empresa)

1. O património da Rede Nacional de Transporte de Electricidade é constituído pela universalidade dos bens, direitos e obrigações recebidos, adquiridos ou contraídos para ou no exercício da sua actividade.

2. A empresa administra e dispõe livremente do seu património, nos termos da legislação em vigor.

3. A empresa deve manter, em dia, os cadastros dos bens que integram o seu património, incluindo os bens sujeitos ao regime de concessão ou licença, que estejam afectos à sua actividade, devendo, igualmente, proceder à respectiva reavaliação de acordo com a legislação em vigor.

ARTIGO 28.º
(Seguros)

A Rede Nacional de Transporte de Electricidade de Electricidade deve celebrar e manter actualizados os contratos de seguro dos bens que integram o seu património e de outros afectos à sua actividade e que estejam sujeitos a seguro obrigatório, nos termos da legislação em vigor.

SECÇÃO II
Gestão Financeira

ARTIGO 29.º
(Princípios de gestão)

1. A gestão da Rede Nacional de Transporte de Electricidade deve ser conduzida de forma a compatibilizar a política económica e social do Estado com a viabilização técnica, económica e financeira da empresa.

2. Na orientação da gestão da empresa devem ser observados os princípios previstos na lei e os seguintes objectivos:

a) Objectivos e indicadores estabelecidos pelo Estado;

b) Auto-suficiência económica e financeira, excepto quando o Estado imponha a prática de preços fixados ou objectivos sociais não economicamente rentáveis para a empresa;

c) Os investimentos a realizar pela empresa devem subordinar-se a critérios de decisão empresarial, nomeadamente em termos de taxa de rentabilidade, período de recuperação do capital investido e grau de risco, excepto quando se trate de investimentos públicos suportados pelo Estado que, neste caso, estarão sujeitos ao regime definido por lei ou ao que tenha sido estabelecido pelo Estado;

d) Os recursos financeiros a mobilizar pela empresa devem ser adequados à natureza dos activos a financiar;

e) Estrutura financeira da empresa deve ser compatível com a sua rentabilidade de exploração e com o grau de risco da actividade;

f) O processo produtivo da empresa deve ser melhorado constantemente, garantindo a melhoria sistemática da qualidade dos serviços prestados e da sua produtividade.

ARTIGO 30.º
(Instrumentos de gestão)

A gestão económica e financeira da Rede Nacional de Transporte de Electricidade é garantida através dos seguintes instrumentos de gestão:

a) Planos e orçamentos plurianuais;

b) Planos e orçamentos anuais;

c) Relatórios de actividades e contas do último exercício económico, adequados às características da empresa e às necessidades do seu acompanhamento;

d) Contrato-programa a celebrar entre a empresa e o Estado, nos termos da legislação em vigor.

ARTIGO 31.º
(Planos e orçamentos plurianuais)

1. Os planos plurianuais estabelecem a estratégia de desenvolvimento a seguir pela empresa, com um horizonte de pelo menos três anos, devendo conter, nomeadamente, o seguinte:

a) Estudo do meio em que a empresa se insere, destacando ameaças e oportunidades;

b) Estudo da empresa, destacando os seus pontos fortes e fracos;

c) Levantamento das principais condicionantes da actividade da empresa, quer legais, quer ligadas ao mercado;

d) As vantagens competitivas da empresa, no que respeita aos serviços prestados em regime de concorrência;

e) Posicionamento da empresa no mercado;

f) A orientação estratégica global para a empresa;

g) Plano de negócios perspectivado para o periodo, incluindo estudos de viabilidade e análises de sensibilidade;

h) As medidas de potenciamento da empresa para o plano de negócio previsto;

i) Os planos de contingência;

j) Avaliação da medida em que a empresa pode satisfazer os objectivos e metas fixadas pelo Estado;

k) A orientação de desenvolvimento tecnológico;

l) A politica de emprego;

m) Os programas especificos de melhoria da qualidade do serviço e da produtividade;

n) Os programas especificos de desenvolvimento dos recursos humanos.

2. Os orçamentos plurianuais devem incluir, sem prejuízo de outros elementos que decorrem da especificidade da actividade e das exigências de gestão, o seguinte:

a) O programa de investimentos e respectivas fontes de financiamento;

b) A conta previsional de exploração e o balanço cambial previsional;

c) A projecção da divida interna e externa.

3. Os planos e orçamentos plurianuais devem ser revistos sempre que as circunstâncias o justifiquem.

ARTIGO 32.º
(Planos e orçamentos anuais)

1. A Rede Nacional de Transporte de Electricidade deve preparar para cada ano económico, com a devida antecedência, e nos termos da legislação em vigor, o seu plano de actividades e orçamento, os quais são organizados respeitando as directivas que disciplinam a apresentação de planos e orçamentos e devem conter os desdobramentos necessários para facilitar a descentralização de responsabilidades e permitir um adequado controlo da gestão.

2. Os projectos de planos e orçamentos anuais a que se refere o número anterior são elaborados de acordo com os pressupostos macro-económicos e demais directrizes globais e sectoriais formulados pelo Executivo e devem ser, antes da sua aprovação, submetidos ao Conselho Fiscal.

3. O Conselho de Administração deve promover as alterações necessárias ao plano e orçamento sempre que circunstâncias ponderosas as imponham.

ARTIGO 33.º
(Relatórios de contas e actividade)

1. O relatório de contas anual deve conter uma exposição clara e fiel sobre a evolução das actividades e a situação da empresa no último exercício económico.

2. O relatório de contas e actividades deve incluir, entre outros elementos eventualmente solicitados, nomeadamente o seguinte:

a) A evolução da gestão nos diferentes ramos de negócios em que a empresa desenvolve a actividade;

b) Apreciação da conta de exploração;

c) Implementação do programa de investimentos;

d) Os factos relevantes ocorridos no exercício;

e) A evolução previsível da empresa;

f) Indicadores estatísticos.

ARTIGO 34.º
(Prestação de contas)

1. Anualmente, com referência a 31 de Dezembro de cada ano, devem ser elaborados os seguintes documentos de prestação de contas:

a) Relatório de gestão;

b) Balanço e demonstração de resultados;

c) Demonstração dos fluxos de caixa;

d) Parecer do Órgão de Fiscalização.

2. Os documentos a que se refere o número anterior devem ser complementados com outros elementos de interesse para a apreciação da situação da empresa, nomeadamente:

a) Anexos ao balanço e à demonstração de resultados;

b) Mapas sintéticos que mostrem o grau de execução do plano de actividades e do orçamento de actividades e do orçamento anual;

c) Outros indicadores significativos de actividades e situação da empresa.

3. Os documentos de prestação de contas devem ser apreciados pelo Conselho Fiscal até 31 de Março do ano seguinte ao que dizem respeito.

4. O relatório e contas devem ser submetidos ao Departamento Ministerial responsável pelo Sector Empresarial Público, até 30 dias após à data do fecho das contas.

ARTIGO 35.º
(Receitas)

Constituem receitas da Rede Nacional de Transporte de Electricidade:

a) As receitas resultantes da sua actividade;

b) O rendimento de bens próprios;

c) O produto da emissão de titulos ou obrigações, que deve ser autorizado pelo Ministro responsável pelo Sector Empresarial Público, ouvidos os Ministros responsáveis pelo Sector da Actividade e das Finanças;

d) O produto de empréstimos e outras operações financeiras, que ao ter lugar não devem comprometer a sua liquidez imediata, devendo ser precedidos da autorização das autoridades competentes;

e) As dotações ou subsidios concedidos pelo Estado;

f) O produto da alienação de bens próprios ou da constituição de direitos sobre eles;

g) As doações, heranças ou legados que lhe sejam destinados;

h) Quaisquer outros rendimentos ou valores que, por lei ou contrato, lhe pertençam.

ARTIGO 36.º
(Afectação de lucros)

1. Dos lucros da Rede Nacional de Transporte de Electricidade deve ser constituída uma provisão para o pagamento dos impostos que incidem sobre eles.

2. O remanescente, acrescido de eventuais lucros que hajam transitado de exercícios anteriores, deve ser repartido da seguinte forma:

a) Constituição da reserva legal;

b) Fundo de investimentos;

c) Fundo social;

d) Entrega ao Estado da parte dos dividendos que lhe cabe como proprietário da empresa;

e) Distribuição de estímulos individuais aos trabalhadores, incluindo aos membros dos órgãos de gestão, a título de comparticipação nos lucros, nos termos da legislação em vigor.

3. Sob proposta do Conselho de Administração, compete ao Ministro da Economia aprovar a afectação da parte dos lucros a que se refere o número anterior, bem como a criação de outras reservas e fundos que se reputem necessários à empresa.

CAPÍTULO V
Pessoal

ARTIGO 37.º
(Regime jurídico)

1. A Rede Nacional de Transporte de Electricidade deve estabelecer com os seus trabalhadores contratos de trabalho de acordo com a legislação de trabalho em vigor e os acordos colectivos de trabalho aplicáveis, tendo em conta as necessidades da empresa, a promoção e o desenvolvimento constante dos trabalhadores nacionais.

2. O quadro de pessoal da empresa, seus direitos e obrigações, regalias e a perspectiva de desenvolvimento técnico-profissional, designadamente as condições que orientem a admissão, suspensão, exoneração, salários, bónus e outras remunerações, as qualificações exigíveis, entre outras matérias de política de recursos humanos, devem constar de regulamento interno a ser aprovado pelo Conselho de Administração.

3. Podem exercer funções na empresa, em comissão de serviços, funcionários públicos e trabalhadores de outras empresas públicas ou com domínio público, os quais mantêm todos os direitos inerentes ao seu quadro de origem, considerando-se todo o período da comissão como serviço prestado nesse quadro.

4. Os trabalhadores da empresa podem também exercer funções no Estado e em outras entidades públicas ou com domínio público, em comissão de serviço, mantendo todos os direitos inerentes ao seu estatuto profissional na respectiva empresa.

5. Os trabalhadores, incluindo os funcionários públicos, nomeados em comissão de serviços, podem optar, a todo o tempo, pelo salário e regalias sociais do seu quadro de origem ou pelos correspondentes às funções que desempenhem.

6. Os salários e os encargos sociais dos trabalhadores, em comissão de serviços, incluindo os funcionários públicos, constituem encargo das entidades onde se encontrem efectivamente em funções.

ARTIGO 38.º
(Política salarial)

1. Sem prejuízo do artigo anterior, compete ao Conselho de Administração a fixação, nos termos da legislação em vigor, dos salários dos trabalhadores do quadro de pessoal da Rede Nacional de Transporte de Electricidade.

2. O Conselho de Administração pode criar prémios a atribuir aos trabalhadores para incentivar o aumento da produtividade da empresa.

ARTIGO 39.º
(Formação profissional)

1. A Rede Nacional de Transporte de Electricidade deve organizar e desenvolver acções de formação profissional com o objectivo de elevar a qualificação profissional dos seus trabalhadores e adaptá-los às novas técnicas e métodos de gestão, de modo a elevar o nível de desempenho da actividade da empresa e facilitar a promoção interna e a mobilidade funcional dos trabalhadores.

2. A empresa deve, igualmente, promover acções de formação para trabalhadores estagiários em processo de integração na empresa.

3. A empresa, de acordo com regulamento próprio, aprovado pelo Conselho de Administração, pode ainda promover a formação dos trabalhadores mediante concessão de bolsas de estudo no interior e exterior do País.

4. Para assegurar as acções de formação, a empresa deve utilizar os seus próprios meios, recorrendo ou associando-se, caso seja necessário, a entidades externas qualificadas.

ARTIGO 40.º
(Participação na gestão)

1. A participação dos trabalhadores na gestão da empresa é assegurada por uma ou mais comissões consultivas, conforme seja considerado mais adequado, tendo aquelas poderes delegados pelas Assembleias dos Trabalhadores.

2. Os trabalhadores da empresa são representados nas comissões consultivas dos trabalhadores na proporção de um representante para cada 150/250 trabalhadores no activo.

3. As comissões consultivas de trabalhadores compete, em especial, pronunciar-se sobre:

a) Os projectos de planos e orçamento da empresa;

b) Grau de execução dos respectivos planos e orçamentos;

c) O nível de produtividade, disciplina e assiduidade dos trabalhadores;

d) As condições de trabalho e social dos trabalhadores;

e) O cumprimento da legislação laboral e dos seus acordos colectivos de trabalho;

f) Os conflitos laborais;

g) Todas as outras questões que os órgãos de gestão da empresa decidam submeter à sua apreciação.

CAPÍTULO VI
Disposições Finais

ARTIGO 41.º
(Mandatos)

Findo o prazo de mandato, os membros dos órgãos da empresa mantêm-se em exercício até à sua efectiva substituição ou declaração de cessação de funções.

ARTIGO 42.º
(Convocatórias)

1. Para as reuniões do Conselho de Administração e Fiscal devem ser convocados todos os membros em exercício de funções.

2. Consideram-se regularmente convocados todos os membros que:

a) Tenham assistido a qualquer reunião anterior a que na sua presença tenha sido fixado o dia e a hora da reunião;

b) Compareçam à reunião;

c) Tenham recebido e assinado a convocatória.

3. Consideram-se também regularmente convocados todos os membros para reuniões ordinárias que tenham lugar no dia e hora pré-estabelecidos nos regulamentos dos órgãos.

4. A convocatória deve ser acompanhada pela ordem de trabalhos e cópia da acta da sessão anterior.

5. De todas as reuniões serão lavradas actas das quais constar:

a) Os assuntos discutidos;

b) A súmula das discussões;

c) As deliberações tomadas;

d) Os votos vencidos quando existirem.

ARTIGO 43.º
(Responsabilidade perante terceiros)

1. A Rede Nacional de Transporte de Electricidade é representada em juízo e fora dele pelo Presidente do Conselho de Administração, que responde civil e criminalmente perante terceiros, pelos actos e omissões da empresa, nos termos da legislação em vigor.

2. Pelas obrigações da empresa responde apenas o seu património.

ARTIGO 44.º
(Conservação de arquivos)

1. A Rede Nacional de Transporte de Electricidade deve conservar em arquivos, pelo prazo de 10 anos, os elementos da sua contabilidade principal e correspondência, podendo os restantes documentos serem inutilizados mediante autorização das entidades competentes, decorridos 5 anos sobre a elaboração ou entrada.

2. Os documentos e livros que se devem conservar em arquivos, bem como a correspondência referida no número anterior, pode ser preservado usando outros processos adequados de registo aceites, nos termos da legislação em vigor, devendo os registos ser devidamente autenticados.

3. Sem prejuízo do número anterior, os originais são inutilizados mediante autorização expressa do Conselho de Administração, sendo lavrado o respectivo auto de inutilização.

4. As cópias autenticadas têm a mesma força probatória dos originais, ainda que resultem da reprodução dos registos que os preservem.

ARTIGO 45.º
(Auditoria interna)

1. Para fins de controlo contabilístico e financeiro e das actividades da empresa, em geral, há um serviço de auditoria interna, constituído por técnicos especializados, que exercem um controlo permanente das actividades financeiras e registos da empresa, nos termos da legislação em vigor.

2. A auditoria interna deve submeter, obrigatoriamente, ao Presidente do Conselho de Administração os seguintes documentos:

a) Relatórios trimestrais da actividade desenvolvida;

b) Relatórios pontuais sobre quaisquer anomalias verificadas.

ARTIGO 46.º
(Auditoria externa)

1. As actividades da empresa e as contas estão sujeitas anualmente à auditoria externa a ser realizada por uma pessoa colectiva especializada de reconhecida idoneidade e estabelecida em Angola.

2. O referido no n.º 1 não isenta a emissão de parecer sobre as contas da empresa por parte do Conselho Fiscal.

ARTIGO 47.º
(Contratação de empresas e especialistas)

A empresa pode, por deliberação do Conselho de Administração, em ordem à realização do seu objecto, contratar empresas ou especialistas de reconhecida idoneidade técnica, nos termos da legislação em vigor.

ARTIGO 48.º
(Direito de participação ou associação)

A empresa pode participar em associações ou organizações de carácter técnico, científico e empresarial de âmbito regional, nacional ou internacional de interesse para o Sector de Energia Eléctrica;

ARTIGO 49.º
(Preservação do ambiente)

A empresa no exercício da sua actividade observa as exigências de natureza ambiental, nos termos da legislação em vigor e das respectivas concessões ou licenças.

ARTIGO 50.º
(Serviços mínimos)

Em casos de greve, os trabalhadores da empresa são obrigados a garantir, nos termos da legislação em vigor, os serviços mínimos de interesse público.

ARTIGO 51.º
(Regimento interno)

Os órgãos da Rede Nacional de Transporte de Electricidade regem-se por regulamentos próprios aprovados pelo Conselho de Administração, salvo legislação especial.

ARTIGO 52.º
(Resolução de litígios)

1. Compete aos tribunais o julgamento de litígios em que seja parte a empresa, incluindo as acções para a efectivação da responsabilidade, bem como a apreciação da responsabilidade dos titulares desses órgãos para com a respectiva empresa.

2. O previsto no número anterior não prejudica a possibilidade da Rede Nacional de Transporte de Electricidade-E.P. utilizar a via arbitral para a resolução de litígios.

ANEXO II
a que se refere o artigo 4.º

ESTATUTO ORGÂNICO DA EMPRESA PÚBLICA DE PRODUÇÃO DE ELECTRICIDADE

CAPÍTULO I
Disposições Gerais

ARTIGO 1.º
(Denominação)

A Empresa Pública de Produção de Electricidade, abreviadamente designada por PRODEL-E.P., é uma empresa de interesse estratégico, dotada de personalidade jurídica e de autonomia administrativa, financeira, patrimonial e de gestão.

ARTIGO 2.º
(Regime jurídico)

A Empresa Pública de Produção de Electricidade rege-se pelo presente Estatuto, pelas normas complementares de execução, pela legislação aplicável às empresas públicas e, no que não estiver especialmente regulado, pelas normas de Direito Comercial e demais normas de direito privado em vigor.

ARTIGO 3.º
(Sede e representações)

1. A Empresa Pública de Produção de Electricidade tem a sua sede em Luanda, podendo, por deliberação do Conselho de Administração, estabelecer e encerrar filiais, sucursais, agências ou outras formas de representação em qualquer parte do território nacional ou no estrangeiro, assim como descentralizar os seus serviços técnicos e administrativos, de acordo com as necessidades da sua actividade.

2. O estabelecimento de filiais, sucursais ou de outras formas de representação da empresa, em qualquer parte do território nacional ou no estrangeiro, carece de observância prévia das disposições legais aplicáveis.

ARTIGO 4.º
(Objecto social)

1. A Empresa Pública de Produção de Electricidade tem por objecto principal a produção de energia eléctrica no âmbito do Sistema Eléctrico Público (SEP), nos termos e condições das respectivas concessões ou licenças.

2. Acessoriamente pode a empresa exercer outras actividades industriais ou comerciais, quer directamente, quer em associação com terceiros, por decisão do seu Conselho de Administração, desde que os objectivos não prejudiquem o seu objecto social.

3. A Empresa Pública de Produção de Electricidade pode, na prossecução do seu objecto principal e por decisão do Conselho de Administração, propor a constituição de novas empresas e a aquisição da totalidade ou parte do capital de empresas já constituídas ou a constituir.

4. A empresa pode, igualmente, nos termos da legislação em vigor, e por decisão do Conselho de Administração, estabelecer com entidades nacionais ou estrangeiras as formas de associação ou cooperação que melhor possibilitem a realização do seu objecto social.

5. O exercício de outras actividades, bem como a constituição de novas empresas ou o estabelecimento de associações, nos termos dos n.os 2, 3 e 4 do presente artigo, devem ser procedidos da autorização prévia do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade.

ARTIGO 5.º
(Capital estatutário)

1. O capital estatutário da Empresa Pública de Produção de Electricidade, realizado por segregação contabilística da ENE — Empresa Nacional de Electricidade-E.P. e do GAMEK — Gabinete de Aproveitamento do Médio Kwanza, é de AKz: 233.910.935.409,71, equivalente a USD 2.401.771.574,48, sendo o restante capital próprio constituído por outros fundos próprios no valor de AKz: 252.783.387.077,82, equivalente a USD 2.595.551.817,70.

2. O capital estatutário pode ser reforçado com dotações do Estado, por meio de incorporação de reservas ou de outros fundos próprios, mediante prévia autorização do Ministro responsável pelo Sector Empresarial Público e do Ministro responsável pelo Sector da Actividade sob proposta do Conselho de Administração, acompanhada de parecer do Conselho Fiscal, nos termos da legislação em vigor.

CAPÍTULO II
Organização e Funcionamento

SECÇÃO I
Dos Órgãos em Geral

ARTIGO 6.º
(Órgãos)

São órgãos da Empresa Pública de Produção de Electricidade:

a) O Conselho de Administração;

b) O Conselho Fiscal.

SECÇÃO II
Dos Órgãos em Especial

SUBSECÇÃO I
Conselho de Administração

ARTIGO 7.º
(Natureza e composição)

1. O Conselho de Administração é o órgão de gestão da Empresa Pública de Produção de Electricidade que responde perante o Governo, sem prejuízo da responsabilidade civil em que os seus membros se constituem perante a empresa ou terceiros e da responsabilidade criminal em que incorram.

2. O Conselho de Administração é composto por sete membros, cinco Executivos e dois Não Executivos, sendo um deles o presidente, cuja designação deve constar do acto de nomeação.

3. Os membros do Conselho de Administração são nomeados e exonerados pelo Titular do Poder Executivo.

4. A nomeação dos membros do Conselho de Administração deve observar os critérios e requisitos estabelecidos no Estatuto do Gestor Público.

ARTIGO 8.º
(Competências do Conselho de Administração)

1. O Conselho de Administração é investido de poderes para agir em nome da empresa, devendo exercê-los nos limites da lei e do presente Estatuto.

2. Ao Conselho de Administração compete o exercício de todos os poderes necessários para assegurar a gestão e o desenvolvimento da empresa e a administração do seu património.

3. Cabe especialmente ao Conselho de Administração, sem prejuízo dos poderes da Tutela:

a) Aprovar os objectivos e as políticas de gestão da empresa;

b) Aprovar os planos de actividade e financeiros anuais e plurianuais e os orçamentos anuais, bem como proceder as necessárias alterações ou actualizações;

c) Representar a empresa em juízo e fora dele, activa ou passivamente, bem como confessar ou transigir em quaisquer acções;

d) Aprovar os relatórios e contas anuais e submetê-los à homologação das entidades competentes;

e) Aprovar o regulamento de funcionamento do Conselho de Administração;

f) Aprovar a organização técnico-administrativa da empresa e as normas de funcionamento interno;

g) Aprovar a participação ou associação com outras empresas, bem como o exercício de novas actividades ou a cessação das existentes, nos termos da legislação em vigor;

h) Aprovar a aquisição e a alienação de bens e de participações financeiras, quando as mesmas não estejam previstas nos orçamentos anuais aprovados, e dentro dos limites definidos pela lei ou pelos Estatutos;

i) Aprovar as normas relativas ao pessoal;

j) Submeter à aprovação ou autorização do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade os actos e documentos que, nos termos da lei ou do Estatuto, o devam ser;

k) Gerir e praticar os actos relativos ao objecto da empresa;

l) Participar com as entidades competentes na aprovação das propostas de preços a serem praticados pela empresa;

m) Decidir sobre a contratação de empréstimos de curto, médio ou longo prazos;

n) Constituir mandatários com os poderes que julgar convenientes;

o) Exercer as demais competências que decorram da lei.

ARTIGO 9.º
(Delegação de poderes)

1. O Conselho de Administração pode, dentro dos limites legais e estatutários, delegar algumas das suas competências a um ou mais dos seus membros, através de:

a) Designação de administradores-delegados;

b) Nomeação de responsáveis;

c) Procuração para actos específicos.

2. O previsto no número anterior não prejudica o direito de avocação das competências delegadas.

ARTIGO 10.º
(Presidente do Conselho de Administração)

Ao Presidente do Conselho de Administração compete o seguinte:

a) Representar a empresa em juízo e fora dele, activa e passivamente;

b) Coordenar a actividade;

c) Zelar pela correcta aplicação das deliberações;

d) Convocar e presidir às reuniões;

e) Nomear, reconduzir ou exonerar os responsáveis da empresa, sob proposta do Conselho de Administração;

f) Assegurar as relações com o Governo;

g) Exercer as demais competências que decorram da lei ou lhe sejam delegadas pelo Conselho de Administração.

ARTIGO 11.º
(Pelouros)

1. Os pelouros dos Administradores são os definidos no acto de nomeação, os quais correspondem a uma ou mais áreas de actividade da empresa, visando a necessária desconcentração de poderes no acompanhamento das actividades da empresa.

2. Aos Administradores, nos termos do número anterior, compete em especial o seguinte:

a) Coordenar as actividades das respectivas áreas e zelar pela correcta aplicação, a respeito, das deliberações do Conselho de Administração;

b) Acompanhar as actividades da empresa e propor medidas tendentes à maximização dos rendimentos e outras que entendam convenientes;

c) Exercer as demais competências que lhes sejam atribuídas pelo Conselho de Administração.

ARTIGO 12.º
(Reuniões e deliberações do Conselho de Administração)

1. O Conselho de Administração reúne-se ordinariamente uma vez por mês e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa, a requerimento da maioria dos seus membros ou a pedido do Conselho Fiscal.

2. As deliberações do Conselho de Administração devem ser tomadas na presença da maioria dos seus membros, em exercício de funções, e por maioria simples de votos.

3. Os membros do Conselho de Administração não podem votar em assuntos que tenham, por conta própria ou de terceiros, interesse em conflito com a empresa.

4. Poderão estar presentes às reuniões do Conselho de Administração outras entidades, especialmente, convidadas para o efeito, mas sem direito a voto.

5. Poderão igualmente assistir às reuniões do Conselho de Administração os membros do Conselho Fiscal.

6. Os membros do Conselho de Administração têm o dever especial de não divulgar os assuntos debatidos no Conselho ou factos inerentes à empresa ou empresas participadas, de que tenham conhecimento no exercício das suas funções, devendo, igualmente, conservar a documentação, em lugar seguro, com a classificação de confidencial.

7. De todas as reuniões do Conselho de Administração são lavradas actas, em livros próprios, as quais são, obrigatoriamente, assinadas por todos os membros que delas hajam participado e das quais devem constar:

a) Os assuntos discutidos;

b) A súmula das decisões;

c) As deliberações tomadas;

d) Os votos vencidos, quando os houver.

ARTIGO 13.º
(Mandato)

O mandato dos membros do Conselho de Administração tem a duração de cinco anos, renovável por uma ou mais vezes, continuando o exercício de funções até a efectiva substituição ou declaração de cessação de funções.

ARTIGO 14.º
(Modo de obrigar a empresa)

1. A empresa vincula-se, perante terceiros, pelos actos do Conselho de Administração, quando praticados em seu nome, em observância das suas competências, nos termos dos respectivos regulamentos, ou de qualquer mandatário destes, legalmente constituído e dentro dos poderes fixados no presente Estatuto.

2. A empresa obriga-se pelas assinaturas de dois membros do Conselho de Administração, sendo um deles o presidente, ou de dois administradores especialmente autorizados pelo Conselho de Administração, ou de um procurador, mandatado, especialmente, para o efeito, pelo Conselho de Administração.

3. Em assuntos de mero expediente, basta a assinatura de um administrador ou de um responsável da empresa.

ARTIGO 15.º
(Responsabilidade dos Administradores)

1. Os Administradores da empresa são responsáveis civilmente perante esta pelos prejuízos causados por actos ou omissões praticados com a preterição dos deveres legais ou estatutários, salvo prova em contrário.

2. Não são responsáveis, pelo prejuízo causado em execução de uma deliberação do Conselho de Administração, os Administradores que nela não tenham participado ou hajam votado vencidos.

3. Os Administradores são responsáveis pela vigilância dos seus pares com poderes de gestão e de quaisquer outros responsáveis da empresa e, em consequência, pelos prejuízos causados pelos actos ou omissões destes, quando, tendo deles conhecimento ou da intenção de os praticar, não provoquem imediata intervenção do Conselho de Administração para tomar as medidas julgadas adequadas às circunstâncias.

4. O parecer do Conselho Fiscal não exonera os Administradores da responsabilidade.

5. O disposto nos números anteriores não exclui a responsabilidade criminal ou disciplinar em que incorram os gestores da empresa, nos termos da legislação em vigor.

ARTIGO 16.º
(Remuneração dos membros do Conselho de Administração)

1. As remunerações dos membros do Conselho de Administração são fixadas por diploma específico, nos termos das disposições conjugadas do n.º 3 do artigo 36.º e alínea d) do n.º 3 do artigo 44.º da Lei do Sector Empresarial Público.

2. Sem prejuízo do número anterior, cabe ao Titular Poder Executivo, ou a quem delegar, nos termos da lei, fixar, as remunerações acessórias para os membros do Conselho de Administração, em função dos resultados da empresa.

SUBSECÇÃO II
Conselho Fiscal

ARTIGO 17.º
(Natureza e composição)

1. O Conselho Fiscal é o órgão de fiscalização e controlo da actividade da Empresa Pública de Produção de Electricidade, composto por três membros, nomeados por Despacho Conjunto do Ministro responsável pelo Sector Empresarial Público e das Finanças.

2. Um dos membros do Conselho Fiscal, cuja designação consta do acto de nomeação, é o presidente, sendo vogais os outros dois.

3. O Presidente do Conselho Fiscal é proposto pelo Ministro das Finanças e os Vogais são propostos, um pelo Ministro responsável pelo Sector Empresarial Público e outro pelo Ministro que Tutela o Sector da Actividade.

4. As gratificações devidas aos membros do Conselho Fiscal são fixadas por diploma específico, nos termos da lei.

ARTIGO 18.º
(Competências do Conselho Fiscal)

1. Ao Conselho Fiscal compete o seguinte:

a) Fiscalizar a gestão e o cumprimento das normas reguladoras da actividade da empresa;

b) Emitir parecer sobre o orçamento e as operações financeiras da empresa;

c) Certificar os valores patrimoniais pertencentes à empresa ou por ela detidos, como garantia, depósito ou a qualquer título;

d) Emitir em data legalmente estabelecida, pareceres sobre os documentos de prestação de contas da empresa, designadamente, o relatório e contas de exercício;

e) Pronunciar-se sobre quaisquer assuntos que lhe sejam submetidos pelos órgãos de gestão da empresa;

f) Verificar os critérios valorimétricos utilizados pela empresa, os quais possam conduzir a correcta avaliação do património e dos resultados;

g) Proceder à verificação regular dos fundos e valores patrimoniais existentes e fiscalizar a escrituração da contabilidade da empresa;

h) Elaborar relatórios anuais sobre a sua acção de fiscalização e submetê-los à aprovação dos Ministros da Energia, das Finanças e da Economia;

i) Participar aos órgãos competentes qualquer irregularidade de que tenha conhecimento;

j) Solicitar a convocação de reunião extraordinária do Conselho de Administração, sempre que o entenda conveniente;

k) Pronunciar-se sobre quaisquer outros assuntos de interesse da empresa.

2. Os pareceres do Conselho Fiscal deverão ser emitidos no prazo de 30 dias a partir da data da recepção dos documentos que lhe dão suporte.

3. Sempre que o julgue necessário, para o correcto desempenho das suas competências, o Conselho Fiscal pode fazer-se assistir por auditores externos contratados pela empresa.

ARTIGO 19.º
(Reuniões e deliberações do Conselho Fiscal)

1. O Conselho Fiscal reúne-se ordinariamente uma vez por trimestre e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa ou solicitação fundamentada de qualquer dos vogais.

2. O Conselho Fiscal pode mediante solicitação do seu presidente reunir-se com o Conselho de Administração, sempre que o julgue necessário ou a convite do presidente deste órgão.

3. O Conselho Fiscal apenas pode deliberar validamente na presença da maioria simples dos seus membros em exercício de funções.

4. As deliberações são tomadas por maioria de votos dos membros presentes, tendo o presidente ou quem o substituir voto de qualidade, em caso de empate na votação.

5. Os membros do Conselho Fiscal não podem votar em assuntos em que tenham, por conta própria ou de terceiros, interesses em conflito com a empresa.

6. De todas as reuniões são lavradas actas, em livros próprios, que são assinadas, obrigatoriamente, por todos os membros que delas tenham participado, das quais devem constar:

a) Os assuntos discutidos;

b) A súmula das discussões;

c) As deliberações tomadas;

d) Os votos vencidos, quando existam.

ARTIGO 20.º
(Incompatibilidades)

1. Não podem ser nomeados membros do Conselho Fiscal da empresa:

a) Os que exerçam funções na gestão da empresa ou as tenham exercido nos dois anos precedentes;

b) Os que prestam serviços remunerados com carácter permanente à empresa;

c) Os que exercem funções de gestão em empresas ou sociedades concorrentes ou associadas;

d) Os interditos, os inabilitados, insolventes, falidos ou inibidos do exercício das funções públicas;

e) Os cônjuges, parentes e afins na linha recta de pessoas impedidas nos termos das alíneas a), b) e c).

2. A superveniência de alguns dos factos indicados nas alíneas do número anterior implica a caducidade da nomeação.

3. A nomeação de qualquer membro do Conselho Fiscal da empresa, para o exercício de funções de direcção na empresa, implica, igualmente, a caducidade da sua anterior nomeação como membro do Conselho Fiscal.

ARTIGO 21.º
(Poderes)

Para o desempenho estrito das suas funções, os membros do Conselho Fiscal podem, conjunta ou separadamente:

a) Obter dos serviços competentes a apresentação, para exame e verificação, os livros, registos e outros documentos da empresa, bem como verificar a existência de quaisquer valores, nomeadamente dinheiro, títulos, mercadorias e outros bens;

b) Obter dos órgãos de gestão ou de qualquer dos seus membros as informações ou esclarecimentos sobre a actividade e funcionamento da empresa ou sobre qualquer dos seus negócios;

c) Solicitar a terceiros, que tenham realizado operações com ou por conta da empresa, as informações de que necessitem para esclarecimento dessas operações;

d) Assistir, sempre que julgue conveniente, às reuniões do Conselho de Administração.

ARTIGO 22.º
(Deveres)

1. Constituem deveres gerais dos membros do Conselho Fiscal:

a) Exercer uma fiscalização conscienciosa e imparcial;

b) Guardar segredo dos factos de que tenham conhecimento em razão das suas funções ou por causa delas, sem prejuízo da obrigação de participar às autoridades os factos ilícitos de que tenham conhecimento;

c) Informar o Conselho de Administração de todas as verificações, fiscalizações e diligências que tenham desenvolvido e dos respectivos resultados;

d) Informar as entidades competentes de qualquer irregularidade e inexactidão verificadas e sobre os esclarecimentos que tenham obtido;

e) Participar das reuniões do Conselho Fiscal e assistir às reuniões conjuntas para as quais sejam convocados ou em que se apreciem as contas de exercício.

2. É proibida a divulgação, pelos membros do Conselho Fiscal, de segredos comerciais ou industriais da empresa, de que tenham tomado conhecimento no desempenho das suas funções.

ARTIGO 23.º
(Mandato)

1. O mandato dos membros do Conselho Fiscal tem a duração de cinco anos, renovável por uma ou duas vezes.

2. O mandato dos membros do Conselho Fiscal pode ser suspenso ou revogado, por razões devidamente fundamentadas, por Despacho Conjunto do Ministro responsável pelo Sector Empresarial Público e das Finanças.

CAPÍTULO III
Intervenção do Governo

ARTIGO 24.º
(Intervenção)

A intervenção do Governo na Empresa Pública de Produção de Electricidade é exercida pelos órgãos competentes, nos termos da lei.

ARTIGO 25.º
(Superintendência)

A superintendência da Empresa Pública de Produção de Electricidade é exercida pelo Titular do Poder Executivo, ou pelo Ministro, com poderes delegados para o efeito, competindo-lhes, em especial, nos termos da legislação em vigor:

a) Fixar os objectivos estratégicos para a actividade da empresa e o enquadramento geral no qual ela se deve desenvolver, de modo a assegurar a sua harmonização com as políticas globais e sectoriais do Governo e com o plano macro-económico nacional;

b) Regulamentar o exercício da actividade do ramo a que a empresa se deve subordinar e fiscalizar o seu cumprimento;

c) Analisar as informações técnicas, económicas e financeiras sobre a actividade da empresa, prestadas regularmente por esta e tomar as medidas adequadas, nos termos da lei;

d) Exercer as demais competências, que decorram da lei.

ARTIGO 26.º
(Órgãos da Administração Local do Estado)

O exercício do órgão da Administração Local do Estado, onde a Empresa Pública de Produção de Electricidade é concessionária ou licenciada, consiste na compatibilização dos planos e programas da empresa com os planos de desenvolvimento da respectiva área de jurisdição.

CAPÍTULO IV
Gestão Patrimonial e Financeira

SECÇÃO I
Gestão Patrimonial

ARTIGO 27.º
(Património da empresa)

1. O património da Empresa Pública de Produção de Electricidade é constituído pela universalidade dos bens, direitos e obrigações recebidos, adquiridos ou contraídos para ou no exercício da sua actividade.

2. A empresa administra e dispõe livremente do seu património, nos termos da legislação em vigor.

3. A empresa deve manter, em dia, os cadastros dos bens que integram o seu património, incluindo os bens sujeitos ao regime de concessão ou licença, que estejam afectos à sua actividade, devendo, igualmente, proceder à respectiva reavaliação de acordo com a legislação em vigor.

ARTIGO 28.º
(Seguros)

A Empresa Pública de Produção de Electricidade deve celebrar e manter actualizados os contratos de seguro dos bens que integram o seu património e de outros afectos à sua actividade e que estejam sujeitos a seguro obrigatório, nos termos da legislação em vigor.

SECÇÃO II
Gestão Financeira

ARTIGO 29.º
(Princípios de gestão)

1. A gestão da Empresa Pública de Produção de Electricidade deve ser conduzida de forma a compatibilizar a política económica e social do Estado com a viabilização técnica, económica e financeira da empresa.

2. Na orientação da gestão da empresa devem ser observados os princípios previstos na lei e os seguintes objectivos:

a) Objectivos e indicadores estabelecidos pelo Estado;

b) Auto-suficiência económica e financeira, excepto quando o Estado imponha a prática de preços fixados ou objectivos sociais não economicamente rentáveis para a empresa;

c) Os investimentos a realizar pela empresa devem subordinar-se a critérios de decisão empresarial, nomeadamente em termos de taxa de rentabilidade, período de recuperação do capital investido e grau de risco, excepto quando se trate de investimentos públicos suportados pelo Estado que, neste caso, estarão sujeitos ao regime definido por lei ou ao que tenha sido estabelecido pelo Estado;

d) Os recursos financeiros a mobilizar pela empresa devem ser adequados à natureza dos activos a financiar;

e) Estrutura financeira da empresa deve ser compatível com a sua rentabilidade de exploração e com o grau de risco da actividade;

f) O processo produtivo da empresa deve ser melhorado constantemente, garantindo a melhoria sistemática da qualidade dos serviços prestados e da sua produtividade.

ARTIGO 30.º
(Instrumentos de gestão)

A gestão económica e financeira da Empresa Nacional de Produção de Electricidade é garantida através dos seguintes instrumentos de gestão:

a) Planos e orçamentos plurianuais;
b) Planos e orçamentos anuais;
c) Relatórios de actividades e contas do último exercício económico, adequados às características da empresa e às necessidades do seu acompanhamento;
d) Contrato-programa a celebrar entre a empresa e o Estado, nos termos da legislação em vigor.

ARTIGO 31.º
(Planos e orçamentos plurianuais)

1. Os planos plurianuais estabelecem a estratégia de desenvolvimento a seguir pela empresa, com um horizonte de pelo menos três anos, devendo conter, nomeadamente, o seguinte:

a) Estudo do meio em que a empresa se insere, destacando ameaças e oportunidades;
b) Estudo da empresa, destacando os seus pontos fortes e fracos;
c) Levantamento das principais condicionantes da actividade da empresa, quer legais, quer ligadas ao mercado;
d) As vantagens competitivas da empresa, no que respeita aos serviços prestados em regime de concorrência;
e) Posicionamento da empresa no mercado;
f) A orientação estratégica global para a empresa;
g) Plano de negócios perspectivado para o período, incluindo estudos de viabilidade e análises de sensibilidade;
h) As medidas de potenciamento da empresa para o plano de negócio previsto;
i) Os planos de contingência;
j) Avaliação da medida em que a empresa pode satisfazer os objectivos e metas fixadas pelo Estado;
k) A orientação de desenvolvimento tecnológico;
l) A política de emprego;
m) Os programas específicos de melhoria da qualidade do serviço e da produtividade;
n) Os programas específicos de desenvolvimento dos recursos humanos.

2. Os orçamentos plurianuais devem incluir, sem prejuízo de outros elementos que decorrem da especificidade da actividade e das exigências de gestão, o seguinte:

a) O programa de investimentos e respectivas fontes de financiamento;
b) A conta previsional de exploração e o balanço cambial previsional;
c) A projecção da dívida interna e externa.

3. Os planos e orçamentos plurianuais devem ser revistos sempre que as circunstâncias o justifiquem.

ARTIGO 32.º
(Planos e orçamentos anuais)

1. A Empresa Pública de Produção de Electricidade deve preparar para cada ano económico, com a devida antecedência, e nos termos da legislação em vigor, o seu plano de actividades e orçamento, os quais são organizados respeitando as directivas que disciplinam a apresentação de planos e orçamentos e devem conter os desdobramentos necessários para facilitar a descentralização de responsabilidades e permitir um adequado controlo da gestão.

2. Os projectos de planos e orçamentos anuais a que se refere o número anterior são elaborados de acordo com os pressupostos macro-económicos e demais directrizes globais e sectoriais formulados pelo Executivo e devem ser, antes da sua aprovação, submetidos ao Conselho Fiscal.

3. O Conselho de Administração deve promover as alterações necessárias ao plano e orçamento sempre que circunstâncias ponderosas as imponham.

ARTIGO 33.º
(Relatórios de contas e actividade)

1. O relatório de contas anual deve conter uma exposição clara e fiel sobre a evolução das actividades e a situação da empresa no último exercício económico.

2. O relatório de contas e actividades deve incluir, entre outros elementos eventualmente solicitados, nomeadamente o seguinte:

a) A evolução da gestão nos diferentes ramos de negócios em que a empresa desenvolve a actividade;
b) Apreciação da conta de exploração;
c) Implementação do programa de investimentos;
d) Os factos relevantes ocorridos no exercício;
e) A evolução previsível da empresa;
f) Indicadores estatísticos.

ARTIGO 34.º
(Prestação de contas)

1. Anualmente, com referência a 31 de Dezembro de cada ano, devem ser elaborados os seguintes documentos de prestação de contas:

a) Relatório de gestão;
b) Balanço e demonstração de resultados;
c) Demonstração dos fluxos de caixa;
d) Parecer do Órgão de Fiscalização.

2. Os documentos a que se refere o número anterior devem ser complementados com outros elementos de interesse para a apreciação da situação da empresa, nomeadamente:

a) Anexos ao balanço e à demonstração de resultados;
b) Mapas sintéticos que mostrem o grau de execução do plano de actividades e do orçamento de actividades e do orçamento anual;

c) Outros indicadores significativos de actividades e situação da empresa.

3. Os documentos de prestação de contas devem ser apreciados pelo Conselho Fiscal até 31 de Março do ano seguinte ao que dizem respeito.

4. O relatório e contas devem ser submetidos ao Departamento Ministerial responsável pelo Sector Empresarial Público, até 30 dias após à data do fecho das contas.

ARTIGO 35.º
(Receitas)

Constituem receitas da Empresa Pública de Produção de Electricidade:

a) As receitas resultantes da sua actividade;

b) O rendimento de bens próprios;

c) O produto da emissão de títulos ou obrigações, que deve ser autorizado pelo Ministro responsável pelo Sector Empresarial Público, ouvidos os Ministros que tutelam o Sector da Actividade e das Finanças;

d) O produto de empréstimos e outras operações financeiras, que ao ter lugar não devem comprometer a sua liquidez imediata, devendo ser precedidos da autorização das autoridades competentes;

e) As dotações ou subsídios concedidos pelo Estado;

f) O produto da alienação de bens próprios ou da constituição de direitos sobre eles;

g) As doações, heranças ou legados que lhe sejam destinados;

h) Quaisquer outros rendimentos ou valores que, por lei ou contrato, lhe pertençam.

ARTIGO 36.º
(Afectação de lucros)

1. Dos lucros da Empresa Pública de Produção de Electricidade deve ser constituída uma provisão para o pagamento dos impostos que incidem sobre eles.

2. O remanescente, acrescido de eventuais lucros que hajam transitado de exercícios anteriores, deve ser repartido da seguinte forma:

a) Constituição da reserva legal;

b) Fundo de investimentos;

c) Fundo social;

d) Entrega ao Estado da parte dos dividendos que lhe cabe como proprietário da empresa;

e) Distribuição de estímulos individuais aos trabalhadores, incluindo aos membros dos órgãos de gestão, a título de comparticipação nos lucros, nos termos da legislação em vigor.

3. Ao Titular do Poder Executivo ou a quem delegar compete aprovar a afectação da parte dos lucros a que se refere o número anterior, bem como a criação de outras reservas e fundos que se reputem necessários à empresa.

CAPÍTULO V
Pessoal

ARTIGO 37.º
(Regime jurídico)

1. A Empresa Pública de Produção de Electricidade deve estabelecer com os seus trabalhadores contratos de trabalho de acordo com a legislação de trabalho em vigor e os acordos colectivos de trabalho aplicáveis, tendo em conta as necessidades da empresa, a promoção e o desenvolvimento constante dos trabalhadores nacionais.

2. O quadro de pessoal da empresa, seus direitos e obrigações, regalias e a perspectiva de desenvolvimento técnico-profissional, designadamente as condições que orientem a admissão, suspensão, exoneração, salários, bónus e outras remunerações, as qualificações exigíveis, entre outras matérias de política de recursos humanos, devem constar de regulamento interno a ser aprovado pelo Conselho de Administração.

3. Podem exercer funções na empresa, em comissão de serviços; funcionários públicos e trabalhadores de outras empresas públicas ou com domínio público, os quais mantêm todos os direitos inerentes ao seu quadro de origem, considerando-se todo o período da comissão como serviço prestado nesse quadro.

4. Os trabalhadores da empresa podem também exercer funções no Estado e em outras entidades públicas ou com domínio público, em comissão de serviço, mantendo todos os direitos inerentes ao seu estatuto profissional na respectiva empresa.

5. Os trabalhadores, incluindo os funcionários públicos, nomeados em comissão de serviços, podem optar, a todo o tempo, pelo salário e regalias sociais do seu quadro de origem ou pelos correspondentes às funções que desempenhem.

6. Os salários e os encargos sociais dos trabalhadores, em comissão de serviços, incluindo os funcionários públicos, constituem encargo das entidades onde se encontrem efectivamente em funções.

ARTIGO 38.º
(Política salarial)

1. Sem prejuízo do artigo anterior, compete ao Conselho de Administração a fixação, nos termos da legislação em vigor, dos salários dos trabalhadores do quadro de pessoal da Empresa Pública de Produção de Electricidade.

2. O Conselho de Administração pode criar prémios a atribuir aos trabalhadores para incentivar o aumento da produtividade da empresa.

ARTIGO 39.º
(Formação profissional)

1. A Empresa Pública de Produção de Electricidade deve organizar e desenvolver acções de formação profissional com o objectivo de elevar a qualificação profissional dos seus trabalhadores e adaptá-los às novas técnicas e métodos de gestão, de modo a elevar o nível de desempenho da actividade da empresa e facilitar a promoção interna e a mobilidade funcional dos trabalhadores.

2. A empresa deve, igualmente, promover acções de formação para trabalhadores estagiários em processo de integração na empresa.

3. A empresa, de acordo com regulamento próprio, aprovado pelo Conselho de Administração, pode ainda promover a formação dos trabalhadores mediante concessão de bolsas de estudo no interior e exterior do País.

4. Para assegurar as acções de formação, a empresa deve utilizar os seus próprios meios, recorrendo ou associando-se, caso seja necessário, a entidades externas qualificadas.

ARTIGO 40.º
(Participação na gestão)

1. A participação dos trabalhadores na gestão da empresa é assegurada por uma ou mais comissões consultivas, conforme seja considerado mais adequado, tendo aquelas poderes delegados pelas Assembleias dos Trabalhadores.

2. Os trabalhadores da empresa são representados nas comissões consultivas dos trabalhadores na proporção de um representante para cada 150/250 trabalhadores no activo.

3. As comissões consultivas de trabalhadores compete, em especial, pronunciar-se sobre:

a) Os projectos de planos e orçamento da empresa;

b) Grau de execução dos respectivos planos e orçamentos;

c) O nível de produtividade, disciplina e assiduidade dos trabalhadores;

d) As condições de trabalho e social dos trabalhadores;

e) O cumprimento da legislação laboral e dos seus acordos colectivos de trabalho;

f) Os conflitos laborais;

g) Todas as outras questões que os órgãos de gestão da empresa decidam submeter à sua apreciação.

CAPÍTULO VI
Disposições Finais

ARTIGO 41.º
(Mandatos)

Findo o prazo de mandato, os membros dos órgãos da empresa mantêm-se em exercício até à sua efectiva substituição ou declaração de cessação de funções.

ARTIGO 42.º
(Convocatórias)

1. Para as reuniões do Conselho de Administração e Fiscal devem ser convocados todos os membros em exercício de funções.

2. Consideram-se regularmente convocados todos os membros que:

a) Tenham assistido a qualquer reunião anterior a que na sua presença tenha sido fixado o dia e a hora da reunião;

b) Compareçam à reunião;

c) Tenham recebido e assinado a convocatória.

3. Consideram-se também regularmente convocados todos os membros para reuniões ordinárias que tenham lugar no dia e hora pré-estabelecidos nos regulamentos dos órgãos.

4. A convocatória deve ser acompanhada pela ordem de trabalhos e cópia da acta da sessão anterior.

5. De todas as reuniões serão lavradas actas das quais constar:

a) Os assuntos discutidos;

b) A súmula das discussões;

c) As deliberações tomadas;

d) Os votos vencidos quando existirem.

ARTIGO 43.º
(Responsabilidade perante terceiros)

1. A Empresa Pública de Produção de Electricidade é representada em juízo e fora dele pelo Presidente do Conselho de Administração, que responde civil e criminalmente perante terceiros, pelos actos e omissões da empresa, nos termos da legislação em vigor.

2. Pelas obrigações da empresa responde apenas o seu património.

ARTIGO 44.º
(Conservação de arquivos)

1. A Empresa Pública de Produção de Electricidade deve conservar em arquivos, pelo prazo de 10 anos, os elementos da sua contabilidade principal e correspondência, podendo os restantes documentos serem inutilizados mediante autorização das entidades competentes, decorridos 5 anos sobre a elaboração ou entrada.

2. Os documentos e livros que se devem conservar em arquivos, bem como a correspondência referida no número anterior, pode ser preservado usando outros processos adequados de registo aceites, nos termos da legislação em vigor, devendo os registos ser devidamente autenticados.

3. Sem prejuízo do número anterior, os originais são inutilizados mediante autorização expressa do Conselho de Administração, sendo lavrado o respectivo auto de inutilização.

4. As cópias autenticadas têm a mesma força probatória dos originais, ainda que resultem da reprodução dos registos que os preservem.

ARTIGO 45.º
(Auditoria interna)

1. Para fins de controlo contabilístico e financeiro e das actividades da empresa, em geral, há um serviço de auditoria interna, constituído por técnicos especializados, que exercem um controlo permanente das actividades financeiras e registos da empresa, nos termos da legislação em vigor.

2. A auditoria interna deve submeter, obrigatoriamente, ao Presidente do Conselho de Administração os seguintes documentos:

a) Relatórios trimestrais da actividade desenvolvida;

b) Relatórios pontuais sobre quaisquer anomalias verificadas.

ARTIGO 46.º
(Auditoria externa)

1. As actividades da empresa e as contas estão sujeitas anualmente à auditoria externa a ser realizada por uma pessoa colectiva especializada de reconhecida idoneidade e estabelecida em Angola.

2. O referido no n.º 1 não isenta a emissão de parecer sobre as contas da empresa por parte do Conselho Fiscal.

ARTIGO 47.º
(Contratação de empresas e especialistas)

A empresa pode por deliberação do Conselho de Administração, em ordem à realização do seu objecto, contratar empresas ou especialistas de reconhecida idoneidade técnica, nos termos da legislação em vigor.

ARTIGO 48.º
(Direito de participação ou associação)

A empresa pode participar em associações ou organizações de carácter técnico, científico e empresarial de âmbito regional, nacional ou internacional de interesse para o Sector de Energia Eléctrica.

ARTIGO 49.º
(Preservação do ambiente)

A empresa no exercício da sua actividade observa as exigências de natureza ambiental, nos termos da legislação em vigor e das respectivas concessões ou licenças.

ARTIGO 50.º
(Serviços mínimos)

Em casos de greve, os trabalhadores da empresa são obrigados a garantir, nos termos da legislação em vigor, os serviços mínimos de interesse público.

ARTIGO 51.º
(Regimento interno)

Os órgãos da Empresa Pública de Produção de Electricidade regem-se por regulamentos próprios aprovados pelo Conselho de Administração, salvo legislação especial.

ARTIGO 52.º
(Resolução de litígios)

1. Compete aos tribunais o julgamento de litígios em que seja parte a empresa, incluindo as acções para a efectivação da responsabilidade, bem como a apreciação da responsabilidade dos titulares desses órgãos para com a respectiva empresa.

2. O previsto no número anterior não prejudica a possibilidade da Empresa Pública de Produção de Electricidade-E.P. utilizar a via arbitral para a resolução de litígios.

O Presidente da República, JOSÉ EDUARDO DOS SANTOS.

ANEXO III
a que se refere o artigo 5.º

ESTATUTO ORGÂNICO DA EMPRESA NACIONAL DE DISTRIBUIÇÃO DE ELECTRICIDADE

CAPÍTULO I
Disposições Gerais

ARTIGO 1.º
(Denominação)

A Empresa Nacional de Distribuição de Electricidade, abreviadamente designada por ENDE-E.P., é uma empresa de interesse estratégico, dotada de personalidade jurídica e de autonomia administrativa, financeira, patrimonial e de gestão.

ARTIGO 2.º
(Regime jurídico)

A Empresa Nacional de Distribuição de Electricidade rege-se pelo presente Estatuto, pelas normas complementares de execução, pela legislação aplicável às empresas públicas e no que não estiver especialmente regulado, pelas normas de Direito Comercial e demais normas de direito privado em vigor.

ARTIGO 3.º
(Sede e representações)

1. A Empresa Nacional de Distribuição de Electricidade tem a sua sede em Luanda, podendo, por deliberação do Conselho de Administração, estabelecer e encerrar filiais, sucursais, agências ou outras formas de representação em qualquer parte do território nacional ou no estrangeiro, assim como descentralizar os seus serviços técnicos e administrativos, de acordo com as necessidades da sua actividade.

2. O estabelecimento de filiais, sucursais ou de outras formas de representação da empresa, em qualquer parte do território nacional ou no estrangeiro, carece de observância prévia das disposições legais aplicáveis.

ARTIGO 4.º
(Objecto social)

1. A Empresa Nacional de Distribuição de Electricidade tem por objecto principal a distribuição de energia eléctrica a nível nacional, no âmbito do Sistema Eléctrico Público (SEP), através da exploração das infra-estruturas das redes de distribuição em AT, MT e BT, em regime de serviço público, nos termos da Lei Geral de Electricidade e seus Regulamentos.

2. Acessoriamente pode a empresa exercer outras actividades industriais ou comerciais, quer directamente, quer em associação com terceiros, por decisão do seu Conselho de Administração, desde que não prejudiquem o seu objecto social.

3. A Empresa Nacional de Distribuição de Electricidade pode, na prossecução do seu objecto principal e por decisão do Conselho de Administração, propor a constituição de novas empresas e a aquisição da totalidade ou parte do capital de empresas já constituídas ou a constituir.

4. A empresa pode, igualmente, nos termos da legislação em vigor, e por decisão do Conselho de Administração, estabelecer com entidades nacionais ou estrangeiras as formas de associação ou cooperação que melhor possibilitem a realização do seu objecto social.

5. O exercício de outras actividades, bem como a constituição de novas empresas ou o estabelecimento de associações, nos termos dos n.os 2, 3 e 4 do presente artigo, devem ser procedidos da autorização prévia do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade.

ARTIGO 5.º
(Capital estatutário)

1. O capital estatutário da Empresa Nacional de Distribuição de Electricidade, realizado por segregação contabilística da ENE — Empresa Nacional de Electricidade-E.P. e da EDEL — Empresa de Distribuição de Electricidade-E.P., é de

AKz: 22.322.259.413,31, equivalente a USD 229.202.487,02, sendo o restante capital próprio constituido por outros fundos próprios no valor de AKz: 261.872.338.554,12, equivalente a USD 2.688.876.164,68.

2. O capital estatutário pode ser reforçado com dotações do Estado, por meio de incorporação de reservas ou de outros fundos próprios, mediante prévia autorização do Ministro responsável pelo Sector Empresarial Público e do Ministro responsável pelo Sector da Actividade sob proposta do Conselho de Administração, acompanhada de parecer do Conselho Fiscal, nos termos da legislação em vigor.

CAPÍTULO II
Organização e Funcionamento

SECÇÃO I
Dos Órgãos em Geral

ARTIGO 6.º
(Órgãos)

São órgãos da Empresa Nacional de Distribuição de Electricidade:

a) O Conselho de Administração;

b) O Conselho Fiscal.

SECÇÃO II
Dos Órgãos em Especial

SUBSECÇÃO I
Conselho de Administração

ARTIGO 7.º
(Natureza e composição)

1. O Conselho de Administração é o órgão de gestão da Empresa Nacional de Distribuição de Electricidade que responde perante o Governo, sem prejuízo da responsabilidade civil em que os seus membros se constituem perante a empresa ou terceiros e da responsabilidade criminal em que incorram.

2. O Conselho de Administração é composto por sete membros, cinco executivos e dois não executivos, sendo um deles o presidente, cuja designação deve constar do acto de nomeação.

3. Os membros do Conselho de Administração são nomeados e exonerados pelo Titular do Poder Executivo.

4. A nomeação dos membros do Conselho de Administração deve observar os critérios e requisitos estabelecidos no Estatuto do Gestor Público.

ARTIGO 8.º
(Competências do Conselho de Administração)

1. O Conselho de Administração é investido de poderes para agir em nome da empresa, devendo exercê-los nos limites da lei e do presente Estatuto.

2. Compete ao Conselho de Administração o exercício de todos os poderes necessários para assegurar a gestão e o desenvolvimento da empresa e a administração do seu património.

3. Cabe especialmente ao Conselho de Administração, sem prejuízo dos poderes da Tutela:

a) Aprovar os objectivos e as políticas de gestão da empresa;

b) Aprovar os planos de actividade e financeiros anuais e plurianuais e os orçamentos anuais, bem como proceder às necessárias alterações ou actualizações;

c) Representar a empresa em juízo e fora dele, activa ou passivamente, bem como confessar ou transigir em quaisquer acções;

d) Aprovar os relatórios e contas anuais e submetê-los à homologação das entidades competentes;

e) Aprovar o regulamento de funcionamento do Conselho de Administração;

f) Aprovar a organização técnico-administrativa da empresa e as normas de funcionamento interno;

g) Aprovar a participação ou associação com outras empresas, bem como o exercício de novas actividades ou a cessação das existentes, nos termos da legislação em vigor;

h) Aprovar a aquisição e a alienação de bens e de participações financeiras, quando as mesmas não estejam previstas nos orçamentos anuais aprovados, e dentro dos limites definidos pela lei ou pelos Estatutos;

i) Aprovar as normas relativas ao pessoal;

j) Submeter à aprovação ou autorização do Ministro responsável pelo Sector Empresarial Público e pelo Ministro responsável pelo Sector da Actividade, os actos e documentos que, nos termos da lei ou do Estatuto, o devam ser;

k) Gerir e praticar os actos relativos ao objecto da empresa;

l) Participar com as entidades competentes na aprovação das propostas de preços ou tarifas a serem praticadas pela empresa;

m) Decidir sobre a contratação de empréstimos de curto, médio ou longo prazos;

n) Constituir mandatários com os poderes que julgar convenientes;

o) Exercer as demais competências que decorram da lei.

ARTIGO 9.º
(Delegação de poderes)

1. O Conselho de Administração pode, dentro dos limites legais e estatutários, delegar algumas das suas competências a um ou mais dos seus membros, através de:

a) Designação de administradores-delegados;

b) Nomeação de responsáveis;

c) Procuração para actos específicos.

2. O previsto no número anterior não prejudica o direito de avocação das competências delegadas.

ARTIGO 10.º
(Presidente do Conselho de Administração)

Ao Presidente do Conselho de Administração compete o seguinte:

a) Representar a empresa em juízo e fora dele, activa e passivamente;

b) Coordenar a actividade;

c) Zelar pela correcta aplicação das deliberações;
d) Convocar e presidir às reuniões;
e) Nomear, reconduzir ou exonerar os responsáveis da empresa, sob proposta do Conselho de Administração;
f) Assegurar as relações com o Governo;
g) Exercer as demais competências que decorram da lei ou lhe sejam delegadas pelo Conselho de Administração.

ARTIGO 11.º
(Pelouros)

1. Os pelouros dos administradores são os definidos no acto de nomeação, os quais correspondem a uma ou mais áreas de actividade da empresa, visando a necessária desconcentração de poderes no acompanhamento das actividades da empresa.

2. Aos administradores, nos termos do número anterior, compete em especial o seguinte:

a) Coordenar as actividades das respectivas áreas e zelar pela correcta aplicação, a respeito, das deliberações do Conselho de Administração;
b) Acompanhar as actividades da empresa e propor medidas tendentes à maximização dos rendimentos e outras que entendam convenientes;
c) Exercer as demais competências que lhes sejam atribuídas pelo Conselho de Administração.

ARTIGO 12.º
(Reuniões e deliberações do Conselho de Administração)

1. O Conselho de Administração reúne-se ordinariamente uma vez por mês e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa, a requerimento da maioria dos seus membros ou a pedido do Conselho Fiscal.

2. As deliberações do Conselho de Administração devem ser tomadas na presença da maioria dos seus membros, em exercício de funções, e por maioria simples de votos.

3. Os membros do Conselho de Administração não podem votar em assuntos que tenham, por conta própria ou de terceiros, interesse em conflito com a empresa.

4. Poderão estar presentes às reuniões do Conselho de Administração outras entidades, especialmente, convidadas para o efeito, mas sem direito a voto.

5. Poderão igualmente assistir às reuniões do Conselho de Administração os membros do Conselho Fiscal.

6. Os membros do Conselho de Administração têm o dever especial de não divulgar os assuntos debatidos no Conselho ou factos inerentes à empresa ou empresas participadas, de que tenham conhecimento no exercício das suas funções, devendo, igualmente, conservar a documentação, em lugar seguro, com a classificação de confidencial.

7. De todas as reuniões do Conselho de Administração são lavradas actas, em livros próprios, as quais são, obrigatoriamente, assinadas por todos os membros que delas hajam participado e das quais devem constar:

a) Os assuntos discutidos;
b) A súmula das decisões;
c) As deliberações tomadas;
d) Os votos vencidos, quando os houver.

ARTIGO 13.º
(Mandato)

O mandato dos membros do Conselho de Administração tem a duração de cinco anos, renovável por uma ou mais vezes, continuando o exercício de funções até à efectiva substituição ou declaração de cessação de funções.

ARTIGO 14.º
(Modo de obrigar a empresa)

1. A empresa vincula-se, perante terceiros, pelos actos do Conselho de Administração, quando praticados em seu nome, em observância das suas competências, nos termos dos respectivos regulamentos, ou de qualquer mandatário destes, legalmente constituído e dentro dos poderes fixados no presente Estatuto.

2. A empresa obriga-se pelas assinaturas de dois membros do Conselho de Administração, sendo um deles o Presidente, ou de dois administradores especialmente autorizados pelo Conselho de Administração, ou de um procurador, mandatado, especialmente, para o efeito, pelo Conselho de Administração.

3. Em assuntos de mero expediente, basta a assinatura de um administrador ou responsável da empresa.

ARTIGO 15.º
(Responsabilidade dos administradores)

1. Os administradores da empresa são responsáveis civilmente perante esta pelos prejuízos causados por actos ou omissões praticados com a preterição dos deveres legais ou estatutários, salvo prova em contrário.

2. Não são responsáveis, pelo prejuízo causado em execução de uma deliberação do Conselho de Administração, os administradores que nela não tenham participado ou hajam votado vencidos.

3. Os administradores são responsáveis pela vigilância dos seus pares com poderes de gestão e de quaisquer outros responsáveis da empresa e, em consequência, pelos prejuízos causados pelos actos ou omissões destes, quando, tendo deles conhecimento ou da intenção de os praticar, não provoquem imediata intervenção do Conselho de Administração para tomar as medidas julgadas adequadas às circunstâncias.

4. O parecer do Conselho Fiscal não exonera os administradores da responsabilidade.

5. O disposto nos números anteriores não exclui a responsabilidade criminal ou disciplinar em que incorram os gestores da empresa, nos termos da legislação em vigor.

ARTIGO 16.º
(Remuneração dos membros do Conselho de Administração)

1. As remunerações dos membros do Conselho de Administração são fixadas por diploma específico, nos termos das disposições conjugadas do n.º 3 do artigo 36.º e alínea d) do n.º 3 do artigo 44.º da Lei de Bases do Sector Empresarial Público.

2. Sem prejuízo do número anterior, cabe ao Titular do Poder Executivo, ou a quem delegar, nos termos da lei, fixar as remunerações acessórias para os membros do Conselho de Administração, em função dos resultados da empresa.

SUBSECÇÃO II
Conselho Fiscal

ARTIGO 17.º
(Natureza e composição)

1. O Conselho Fiscal é o órgão de fiscalização e controlo da actividade da Empresa Nacional de Distribuição de Electricidade, composto por três membros, nomeados por Despacho Conjunto do Ministro responsável pelo Sector Empresarial Público e das Finanças.

2. Um dos membros do Conselho Fiscal, cuja designação consta do acto de nomeação, é o presidente, sendo vogais os outros dois.

3. O Presidente do Conselho Fiscal é proposto pelo Ministro das Finanças e os vogais são propostos, um pelo Ministro responsável pelo Sector Empresarial Público e outro pelo Ministro que Tutela o Sector da Actividade.

4. As gratificações devidas aos membros do Conselho Fiscal são fixadas por diploma específico, nos termos da lei.

ARTIGO 18.º
(Competências do Conselho Fiscal)

1. Ao Conselho Fiscal compete o seguinte:

a) Fiscalizar a gestão e o cumprimento das normas reguladoras da actividade da empresa;

b) Emitir parecer sobre o orçamento e as operações financeiras da empresa;

c) Certificar os valores patrimoniais pertencentes à empresa ou por ela detidos, como garantia, depósito ou a qualquer título;

d) Emitir em data legalmente estabelecida, pareceres sobre os documentos de prestação de contas da empresa, designadamente o relatório e contas de exercício;

e) Pronunciar-se sobre quaisquer assuntos que lhe sejam submetidos pelos órgãos de gestão da empresa;

f) Verificar os critérios valorimétricos utilizados pela empresa, os quais possam conduzir a correcta avaliação do património e dos resultados;

g) Proceder à verificação regular dos fundos e valores patrimoniais existentes e fiscalizar a escrituração da contabilidade da empresa;

h) Elaborar relatórios anuais sobre a sua acção de fiscalização e submetê-los à aprovação dos Ministros da Energia, das Finanças e da Economia;

i) Participar aos órgãos competentes qualquer irregularidade de que tenha conhecimento;

j) Solicitar a convocação de reunião extraordinária do Conselho de Administração, sempre que o entenda conveniente;

k) Pronunciar-se sobre quaisquer outros assuntos de interesse da empresa.

2. Os pareceres do Conselho Fiscal devem ser emitidos no prazo de 30 dias a partir da data da recepção dos documentos que lhe dão suporte.

3. Sempre que o julgue necessário, para o correcto desempenho das suas competências, o Conselho Fiscal pode fazer-se assistir por auditores externos contratados pela empresa.

ARTIGO 19.º
(Reuniões e deliberações do Conselho Fiscal)

1. O Conselho Fiscal reúne-se ordinariamente uma vez por trimestre e extraordinariamente sempre que convocado pelo seu presidente, por sua iniciativa ou solicitação fundamentada de qualquer dos vogais.

2. O Conselho Fiscal pode mediante solicitação do seu presidente reunir-se com o Conselho de Administração, sempre que o julgue necessário ou a convite do presidente deste órgão.

3. O Conselho Fiscal apenas pode deliberar validamente na presença da maioria simples dos seus membros em exercício de funções.

4. As deliberações são tomadas por maioria de votos dos membros presentes, tendo o presidente ou quem o substituir voto de qualidade, em caso de empate na votação.

5. Os membros do Conselho Fiscal não podem votar em assuntos em que tenham, por conta própria ou de terceiros, interesses em conflito com a empresa.

6. De todas as reuniões são lavradas actas, em livros próprios, que são assinadas, obrigatoriamente, por todos os membros que delas tenham participado, das quais devem constar:

a) Os assuntos discutidos;

b) A súmula das discussões;

c) As deliberações tomadas;

d) Os votos vencidos, quando existam.

ARTIGO 20.º
(Incompatibilidades)

1. Não podem ser nomeados membros do Conselho Fiscal da empresa:

a) Os que exerçam funções na gestão da empresa ou as tenham exercido nos dois anos precedentes;

b) Os que prestam serviços remunerados com carácter permanente à empresa;

c) Os que exercem funções de gestão em empresas ou sociedades concorrentes ou associadas;

d) Os interditos, os inabilitados, insolventes, falidos ou inibidos do exercício das funções públicas;

e) Os cônjuges, parentes e afins na linha recta de pessoas impedidas, nos termos das alíneas a), b) e c).

2. A superveniência de alguns dos factos indicados nas alíneas do número anterior implica a caducidade da nomeação.

3. A nomeação de qualquer membro do Conselho Fiscal da empresa, para o exercício de funções de direcção na empresa, implica, igualmente, a caducidade da sua anterior nomeação como membro do Conselho Fiscal.

ARTIGO 21.º
(Poderes)

Para o desempenho estrito das suas funções, os membros do Conselho Fiscal podem, conjunta ou separadamente:

a) Obter dos serviços competentes a apresentação, para exame e verificação, os livros, registos e outros documentos da empresa, bem como verificar a existência de quaisquer valores, nomeadamente dinheiro, títulos, mercadorias e outros bens;

b) Obter dos órgãos de gestão ou de qualquer dos seus membros as informações ou esclarecimentos sobre a actividade e funcionamento da empresa ou sobre qualquer dos seus negócios;

c) Solicitar a terceiros, que tenham realizado operações com ou por conta da empresa, as informações de que necessitem para esclarecimento dessas operações;

d) Assistir, sempre que julguem conveniente, às reuniões do Conselho de Administração.

ARTIGO 22.º
(Deveres)

1. Constituem deveres gerais dos membros do Conselho Fiscal:

a) Exercer uma fiscalização conscienciosa e imparcial;

b) Guardar segredo dos factos de que tenham conhecimento em razão das suas funções ou por causa delas, sem prejuízo da obrigação de participar às autoridades os factos ilícitos de que tenham conhecimento;

c) Informar o Conselho de Administração de todas as verificações, fiscalizações e diligências que tenham desenvolvido e dos respectivos resultados;

d) Informar as entidades competentes de qualquer irregularidade e inexactidão verificadas e sobre os esclarecimentos que tenham obtido;

e) Participar das reuniões do Conselho Fiscal e assistir às reuniões conjuntas para as quais sejam convocados ou em que se apreciem as contas de exercício.

2. É proibida a divulgação, pelos membros do Conselho Fiscal, de segredos comerciais ou industriais da empresa, de que tenham tomado conhecimento no desempenho das suas funções.

ARTIGO 23.º
(Mandato)

1. O mandato dos membros do Conselho Fiscal tem a duração de cinco anos, renovável por uma ou duas vezes.

2. O mandato dos membros do Conselho Fiscal pode ser suspenso ou revogado, por razões devidamente fundamentadas, por Despacho Conjunto do Ministro responsável pelo Sector Empresarial Público e das Finanças.

CAPÍTULO III
Intervenção do Governo

ARTIGO 24.º
(Intervenção)

A intervenção do Governo na Empresa Nacional de Distribuição de Electricidade é exercida pelos órgãos competentes, nos termos da lei.

ARTIGO 25.º
(Superintendência)

A superintendência da Empresa Nacional de Distribuição de Electricidade é exercida pelo Titular do Poder Executivo, ou pelo Ministro com poderes delegados para o efeito, competindo-lhes, em especial, nos termos da legislação em vigor:

a) Fixar os objectivos estratégicos para a actividade da empresa e o enquadramento geral no qual ela se deve desenvolver, de modo a assegurar a sua harmonização com as políticas globais e sectoriais do Governo e com o plano macro-económico nacional;

b) Regulamentar o exercício da actividade do ramo a que a empresa se deve subordinar e fiscalizar o seu cumprimento;

c) Analisar as informações técnicas, económicas e financeiras sobre a actividade da empresa, prestadas regularmente por esta e tomar as medidas adequadas, nos termos da lei;

d) Exercer as demais competências, que decorram da lei.

ARTIGO 26.º
(Órgãos da Administração Local do Estado)

O exercício do órgão da Administração Local do Estado, onde a Empresa Nacional de Distribuição de Electricidade é concessionária ou licenciada, consiste na compatibilização dos planos e programas da empresa com os planos de desenvolvimento da respectiva área de jurisdição.

CAPÍTULO IV
Gestão Patrimonial e Financeira

SECÇÃO I
Gestão Patrimonial

ARTIGO 27.º
(Património da empresa)

1. O património da Empresa Nacional de Distribuição de Electricidade é constituído pela universalidade dos bens, direitos e obrigações recebidos, adquiridos ou contraídos para ou no exercício da sua actividade.

2. A empresa administra e dispõe livremente do seu património, nos termos da legislação em vigor.

3. A empresa deve manter, em dia, os cadastros dos bens que integram o seu património, incluindo os bens sujeitos ao regime de concessão ou licença, que estejam afectos à sua actividade, devendo, igualmente, proceder à respectiva reavaliação de acordo com a legislação em vigor.

ARTIGO 28.º
(Seguros)

A Empresa Nacional de Distribuição de Electricidade deve celebrar e manter actualizados os contratos de seguro dos bens que integram o seu património e de outros afectos à sua actividade e que estejam sujeitos a seguro obrigatório, nos termos da legislação em vigor.

SECÇÃO II
Gestão Financeira

ARTIGO 29.º
(Princípios de gestão)

1. A gestão da Empresa Nacional de Distribuição de Electricidade deve ser conduzida de forma a compatibilizar a política económica e social do Estado com a viabilização técnica, económica e financeira da empresa.

2. Na orientação da gestão da empresa devem ser observados os princípios previstos na lei e os seguintes objectivos:

a) Objectivos e indicadores estabelecidos pelo Estado;

b) Auto-suficiência económica e financeira, excepto quando o Estado imponha a prática de preços fixados ou objectivos sociais não economicamente rentáveis para a empresa;

c) Os investimentos a realizar pela empresa devem subordinar-se a critérios de decisão empresarial, nomeadamente em termos de taxa de rentabilidade, período de recuperação do capital investido e grau de risco, excepto quando se trate de investimentos públicos suportados pelo Estado que, neste caso, estarão sujeitos ao regime definido por lei ou ao que tenha sido estabelecido pelo Estado;

d) Os recursos financeiros a mobilizar pela empresa devem ser adequados à natureza dos activos a financiar;

e) Estrutura financeira da empresa deve ser compatível com a sua rentabilidade de exploração e com o grau de risco da actividade;

f) O processo produtivo da empresa deve ser melhorado constantemente, garantindo a melhoria sistemática da qualidade dos serviços prestados e da sua produtividade.

ARTIGO 30.º
(Instrumentos de gestão)

A gestão económica e financeira da Empresa Nacional de Distribuição de Electricidade é garantida através dos seguintes instrumentos de gestão:

a) Planos e orçamentos plurianuais;

b) Planos e orçamentos anuais;

c) Relatórios de actividades e contas do último exercício económico, adequados às características da empresa e às necessidades do seu acompanhamento;

d) Contrato-programa a celebrar entre a empresa e o Estado, nos termos da legislação em vigor.

ARTIGO 31.º
(Planos e orçamentos plurianuais)

1. Os planos plurianuais estabelecem a estratégia de desenvolvimento a seguir pela empresa, com um horizonte de pelo menos três anos, devendo conter, nomeadamente, o seguinte:

a) Estudo do meio em que a empresa se insere, destacando ameaças e oportunidades;

b) Estudo da empresa, destacando os seus pontos fortes e fracos;

c) Levantamento das principais condicionantes da actividade da empresa, quer legais, quer ligadas ao mercado;

d) As vantagens competitivas da empresa, no que respeita aos serviços prestados em regime de concorrência;

e) Posicionamento da empresa no mercado;

f) A orientação estratégica global para a empresa;

g) Plano de negócios perspectivado para o período, incluindo estudos de viabilidade e análises de sensibilidade;

h) As medidas de potenciamento da empresa para o plano de negócio previsto;

i) Os planos de contingência;

j) Avaliação da medida em que a empresa pode satisfazer os objectivos e metas fixadas pelo Estado;

k) A orientação de desenvolvimento tecnológico;

l) A política de emprego;

m) Os programas específicos de melhoria da qualidade do serviço e da produtividade;

n) Os programas específicos de desenvolvimento dos recursos humanos.

2. Os orçamentos plurianuais devem incluir, sem prejuízo de outros elementos que decorrem da especificidade da actividade e das exigências de gestão, o seguinte:

a) O programa de investimentos e respectivas fontes de financiamento;

b) A conta previsional de exploração e o balanço cambial previsional;

c) A projecção da dívida interna e externa.

3. Os planos e orçamentos plurianuais devem ser revistos sempre que as circunstâncias o justifiquem.

ARTIGO 32.º
(Planos e orçamentos anuais)

1. A Empresa Nacional de Distribuição de Electricidade deve preparar para cada ano económico, com a devida antecedência, e nos termos da legislação em vigor, o seu plano de actividades e orçamento, os quais são organizados respeitando as directivas que disciplinam a apresentação de planos e orçamentos e devem conter os desdobramentos necessários para facilitar a descentralização de responsabilidades e permitir um adequado controlo da gestão.

2. Os projectos de planos e orçamentos anuais a que se refere o número anterior são elaborados de acordo com os pressupostos macro-económicos e demais directrizes globais e sectoriais formulados pelo Executivo e devem ser, antes da sua aprovação, submetidos ao Conselho Fiscal.

3. O Conselho de Administração deve promover as alterações necessárias ao plano e orçamento sempre que circunstâncias ponderosas as imponham.

ARTIGO 33.º
(Relatórios de contas e actividade)

1. O relatório de contas anual deve conter uma exposição clara e fiel sobre a evolução das actividades e a situação da empresa no último exercício económico.

2. O relatório e contas e actividades deve incluir, entre outros elementos eventualmente solicitados, nomeadamente o seguinte:

a) A evolução da gestão nos diferentes ramos de negócios em que a empresa desenvolve a actividade;

b) Apreciação da conta de exploração,

c) Implementação do programa de investimentos;

d) Os factos relevantes ocorridos no exercício;

e) A evolução previsível da empresa;

f) Indicadores estatísticos.

ARTIGO 34.º
(Prestação de contas)

1. Anualmente, com referência a 31 de Dezembro de cada ano, devem ser elaborados os seguintes documentos de prestação de contas:

a) Relatório de gestão;

b) Balanço e demonstração de resultados;

c) Demonstração dos fluxos de caixa;

d) Parecer do Órgão de Fiscalização.

2. Os documentos a que se refere o número anterior devem ser complementados com outros elementos de interesse para a apreciação da situação da empresa, nomeadamente:

a) Anexos ao balanço e à demonstração de resultados;

b) Mapas sintéticos que mostrem o grau de execução do plano de actividades e do orçamento de actividades e do orçamento anual;

c) Outros indicadores significativos de actividades e situação da empresa.

3. Os documentos de prestação de contas devem ser apreciados pelo Conselho Fiscal até 31 de Março do ano seguinte ao que dizem respeito.

4. O relatório e contas devem ser submetidos ao Departamento Ministerial responsável pelo Sector Empresarial Público, até 30 dias após à data do fecho das contas.

ARTIGO 35.º
(Receitas)

Constituem receitas da Empresa Nacional de Distribuição de Electricidade:

a) As receitas resultantes da sua actividade;

b) O rendimento de bens próprios;

c) O produto da emissão de títulos ou obrigações, que deve ser autorizado pelo Ministro responsável pelo Sector Empresarial Público, ouvidos os Ministros que tutelam o Sector da Actividade e das Finanças;

d) O produto de empréstimos e outras operações financeiras, que ao ter lugar não devem comprometer a sua liquidez imediata, devendo ser precedidos da autorização das autoridades competentes;

e) As dotações ou subsídios concedidos pelo Estado;

f) O produto da alienação de bens próprios ou da constituição de direitos sobre eles;

g) As doações, heranças ou legados que lhe sejam destinados;

h) Quaisquer outros rendimentos ou valores que, por lei ou contrato, lhe pertençam.

ARTIGO 36.º
(Afectação de lucros)

1. Dos lucros da Empresa Nacional de Distribuição de Electricidade deve ser constituída uma provisão para o pagamento dos impostos que incidem sobre eles.

2. O remanescente, acrescido de eventuais lucros que hajam transitado de exercícios anteriores, deve ser repartido da seguinte forma:

a) Constituição da reserva legal;

b) Fundo de investimentos;

c) Fundo social;

d) Entrega ao Estado da parte dos dividendos que lhe cabe como proprietário da empresa;

e) Distribuição de estímulos individuais aos trabalhadores, incluindo aos membros dos órgãos de gestão, a título de comparticipação nos lucros, nos termos da legislação em vigor.

3. Ao Titular do Poder Executivo ou a quem delegar aprovar a afectação da parte dos lucros a que se refere o número anterior, compete bem como a criação de outras reservas e fundos que se reputem necessários à empresa.

CAPÍTULO V
Pessoal

ARTIGO 37.º
(Regime jurídico)

1. A Empresa Nacional de Distribuição de Electricidade deve estabelecer com os seus trabalhadores contratos de trabalho de acordo com a legislação de trabalho em vigor e os acordos colectivos de trabalho aplicáveis, tendo em conta as necessidades da empresa, a promoção e o desenvolvimento constante dos trabalhadores nacionais.

2. O quadro de pessoal da empresa, seus direitos e obrigações, regalias e a perspectiva de desenvolvimento técnico-profissional, designadamente as condições que orientem a admissão, suspensão, exoneração, salários, bónus e outras remunerações, as qualificações exigíveis, entre outras matérias de política de recursos humanos, devem constar de regulamento interno a ser aprovado pelo Conselho de Administração.

3. Podem exercer funções na empresa, em comissão de serviço; funcionários públicos e trabalhadores de outras empresas públicas ou com domínio público, os quais mantêm todos os direitos inerentes ao seu quadro de origem, considerando-se todo o período da comissão como serviço prestado nesse quadro.

4. Os trabalhadores da empresa podem também exercer funções no Estado e em outras entidades públicas ou com domínio público, em comissão de serviço, mantendo todos os direitos inerentes ao seu estatuto profissional na respectiva empresa.

5. Os trabalhadores, incluindo os funcionários públicos, nomeados em comissão de serviço, podem optar, a todo o tempo, pelo salário e regalias sociais do seu quadro de origem ou pelos correspondentes às funções que desempenhem.

6. Os salários e os encargos sociais dos trabalhadores, em comissão de serviços, incluindo os funcionários públicos, constituem encargo das entidades onde se encontrem efectivamente em funções.

ARTIGO 38.º
(Política salarial)

1. Sem prejuízo do artigo anterior, compete ao Conselho de Administração a fixação, nos termos da legislação em vigor, dos salários dos trabalhadores do quadro de pessoal da Empresa Nacional de Distribuição de Electricidade.

2. O Conselho de Administração pode criar prémios a atribuir aos trabalhadores para incentivar o aumento da produtividade da empresa.

ARTIGO 39.º
(Formação profissional)

1. A Empresa Nacional de Distribuição de Electricidade deve organizar e desenvolver acções de formação profissional com o objectivo de elevar a qualificação profissional dos seus trabalhadores e adaptá-los às novas técnicas e métodos de gestão, de modo a elevar o nível de desempenho da actividade da empresa e facilitar a promoção interna e a mobilidade funcional dos trabalhadores.

2. A empresa deve, igualmente, promover acções de formação para trabalhadores estagiários em processo de integração na empresa.

3. A empresa, de acordo com regulamento próprio, aprovado pelo Conselho de Administração, pode ainda promover a formação dos trabalhadores mediante concessão de bolsas de estudo no interior e exterior do País.

4. Para assegurar as acções de formação, a empresa deve utilizar os seus próprios meios, recorrendo ou associando-se, caso seja necessário, a entidades externas qualificadas.

ARTIGO 40.º
(Participação na gestão)

1. A participação dos trabalhadores na gestão da empresa é assegurada por uma ou mais comissões consultivas, conforme seja considerado mais adequado, tendo aquelas poderes delegados pelas Assembleias dos Trabalhadores.

2. Os trabalhadores da empresa são representados nas comissões consultivas dos trabalhadores na proporção de um representante para cada 150/250 trabalhadores no activo.

3. As comissões consultivas de trabalhadores compete, em especial, pronunciar-se sobre:

a) Os projectos de planos e orçamento da empresa;

b) Grau de execução dos respectivos planos e orçamentos;

c) O nível de produtividade, disciplina e assiduidade dos trabalhadores;

d) As condições de trabalho e social dos trabalhadores;

e) O cumprimento da legislação laboral e dos seus acordos colectivos de trabalho;

f) Os conflitos laborais;

g) Todas as outras questões que os órgãos de gestão da empresa decidam submeter à sua apreciação.

CAPÍTULO VI
Disposições Finais

ARTIGO 41.º
(Mandatos)

Findo o prazo de mandato, os membros dos órgãos da empresa mantêm-se em exercício até à sua efectiva substituição ou declaração de cessação de funções.

ARTIGO 42.º
(Convocatórias)

1. Para as reuniões do Conselho de Administração e Fiscal devem ser convocados todos os membros em exercício de funções.

2. Consideram-se regularmente convocados todos os membros que:

a) Tenham assistido a qualquer reunião anterior a que na sua presença tenha sido fixado o dia e a hora da reunião;

b) Compareçam à reunião;

c) Tenham recebido e assinado a convocatória.

3. Consideram-se também regularmente convocados todos os membros para reuniões ordinárias que tenham lugar no dia e hora pré-estabelecidos nos regulamentos dos órgãos.

4. A convocatória deve ser acompanhada pela ordem de trabalhos e cópia da acta da sessão anterior.

5. De todas as reuniões serão lavradas actas das quais constam:

a) Os assuntos discutidos;

b) A súmula das discussões;

c) As deliberações tomadas;

d) Os votos vencidos quando existirem.

ARTIGO 43.º
(Responsabilidade perante terceiros)

1. A Empresa Nacional de Distribuição de Electricidade é representada em juízo e fora dele pelo Presidente do Conselho de Administração, que responde civil e criminalmente perante terceiros, pelos actos e omissões da empresa, nos termos da legislação em vigor.

2. Pelas obrigações da empresa responde apenas o seu património.

ARTIGO 44.º
(Conservação de arquivos)

1. A Empresa Nacional de Distribuição de Electricidade deve conservar em arquivos, pelo prazo de 10 anos, os elementos da sua contabilidade principal e correspondência, podendo os restantes documentos serem inutilizados mediante

autorização das entidades competentes, decorridos 5 anos sobre a elaboração ou entrada.

2. Os documentos e livros que se devem conservar em arquivos, bem como a correspondência referida no número anterior, pode ser preservado usando outros processos adequados de registo aceites, nos termos da legislação em vigor, devendo os registos ser devidamente autenticados.

3. Sem prejuízo do número anterior, os originais são inutilizados mediante autorização expressa do Conselho de Administração, sendo lavrado o respectivo auto de inutilização.

4. As cópias autenticadas têm a mesma força probatória dos originais, ainda que resultem da reprodução dos registos que os preservem.

ARTIGO 45.º
(Auditoria interna)

1. Para fins de controlo contabilístico e financeiro e das actividades da empresa, em geral, há um serviço de auditoria interna, constituído por técnicos especializados, que exercem um controlo permanente das actividades financeiras e registos da empresa, nos termos da legislação em vigor.

2. A auditoria interna deve submeter, obrigatoriamente, ao Presidente do Conselho de Administração os seguintes documentos:

a) Relatórios trimestrais da actividade desenvolvida;

b) Relatórios pontuais sobre quaisquer anomalias verificadas.

ARTIGO 46.º
(Auditoria externa)

1. As actividades da empresa e as contas estão sujeitas anualmente à auditoria externa a ser realizada por uma pessoa colectiva especializada de reconhecida idoneidade e estabelecida em Angola.

2. O referido no n.º 1 não isenta a emissão de parecer sobre as contas da empresa por parte do Conselho Fiscal.

ARTIGO 47.º
(Contratação de empresas e especialistas)

A empresa pode por deliberação do Conselho de Administração, em ordem à realização do seu objecto, contratar empresas ou especialistas de reconhecida idoneidade técnica, nos termos da legislação em vigor.

ARTIGO 48.º
(Direito de participação ou associação)

A empresa pode participar em associações ou organizações de carácter técnico, científico e empresarial de âmbito regional, nacional ou internacional de interesse para o Sector de Energia Eléctrica;

ARTIGO 49.º
(Preservação do ambiente)

A empresa no exercício da sua actividade observa as exigências de natureza ambiental, nos termos da legislação em vigor e das respectivas concessões ou licenças.

ARTIGO 50.º
(Serviços mínimos)

Em casos de greve, os trabalhadores da empresa são obrigados a garantir, nos termos da legislação em vigor, os serviços mínimos de interesse público.

ARTIGO 51.º
(Regimento interno)

Os órgãos da Empresa Nacional de Distribuição de Electricidade regem-se por regulamentos próprios aprovados pelo Conselho de Administração, salvo legislação especial.

ARTIGO 52.º
(Resolução de litígios)

1. Compete aos tribunais o julgamento de litígios em que seja parte a empresa, incluindo as acções para a efectivação da responsabilidade, bem como a apreciação da responsabilidade dos titulares desses órgãos para com a respectiva empresa.

2. O previsto no número anterior não prejudica a possibilidade da Empresa Nacional de Distribuição de Electricidade-E.P. utilizar a via arbitral para a resolução de litígios.

O Presidente da República, JOSÉ EDUARDO DOS SANTOS.

Despacho Presidencial n.º 222/14
de 20 de Novembro

Considerando que no âmbito do Programa de Reabilitação do Sistema de Abastecimento de Água a todas as Sedes Municipais, urge a necessidade de se realizar obras de reforço do Sistema de Abastecimento de Água da Cidade de M´Banza Congo para melhorar as condições de vida da população e solucionar o problema de abastecimento de água da referida Cidade;

Havendo necessidade de se proceder à abertura e realização de um concurso público para a execução das obras acima referidas, delegando competência à Unidade Técnica de Negociação para a aprovação das peças do procedimento e condução do mesmo;

O Presidente da República determina, nos termos da alínea d) do artigo 120.º e do n.º 5 do artigo 125.º, ambos da Constituição da República de Angola, o seguinte:

1.º — É autorizada a celebração do contrato para a realização de obras de reforço do Sistema de Abastecimento de Água à Cidade de M´Banza Congo.

2.º — É criada a Comissão de Avaliação do concurso público para a realização de obras de reforço do Sistema de Abastecimento de Água à Cidade de M´Banza Congo, integrada pelas seguintes entidades:

a) Yolanda dos Santos — Presidente da Comissão;

b) Altair Silva — Membro efectivo;

c) Lucrécio Costa — Membro efectivo;

d) João Paulo Cristina — Membro efectivo;

e) António Almeida — Membro efectivo;

f) Mário Francisco — Membro suplente;

g) Teresa Alves — Membro suplente.

3.º — A Comissão criada tem as seguintes atribuições:

a) Receber as candidaturas;

b) Conduzir o acto público do concurso;

Translation of Presidential Decree No. 305/14 of 20 November from **Portuguese** to **English**

Source: https://lex.ao/docs/presidente-da-republica/2014/decreto-presidencial-n-o-305-14-de-20-de-novembro/

Presidential Decree No. 305/14 of 20 November

DETAILS

- **Diploma:** Presidential Decree No. 305/14 of 20 November
- **Legislative Entity:** President of the Republic
- **Publication:** Official Gazette, Series I, No. 206 of 20 November 2014 (Page 4937)

Subject

It approves the process of extinction of the public companies ENE - National Electricity Company and EDEL - Electricity Distribution Company and creates new public companies for the electricity sector: the National Electricity Transport Network, EP, abbreviated RNT - EP, the Public Electricity Production Company, EP, abbreviated PRODEL - EP and the National Electricity Distribution Company, EP, abbreviated ENDE - EP and approves their respective Organic Statutes. - It repeals Decree no. 24/80, of March 20, which creates the National Electricity Company, ENE, Decree no. 29/98, of September 4, which approves its Organic Statute and Decree no. 33/99, of November 19, which establishes and approves the Organic Statute of the Electricity Distribution Company, EDEL, as well as all legislation that contradicts the provisions of this Presidential Decree.

Diploma Contents

Considering that the Development Strategy for the Electricity Sector and the Financial Restructuring of Companies in the Sector, approved by Resolutions No. 21/02 of 1 October and No. 13/03 of 29 April, initiated the process of accounting separation, consisting of the restructuring of the overall business and its organisational structure through the creation of business units (Production, Transport and Distribution), with a view to creating conditions for the legal separation of the aforementioned business areas of the Sector: Considering that the National Energy Security Policy and Strategy, approved by Presidential Decree No. 256/11 of 29 November, recommends redefining the institutional framework of the electricity subsector, based on strengthening regulatory functions, clarifying responsibilities, attracting resources and strengthening the skills of operators, through the creation of single public entities specialising in each stage of the production, transport and distribution value chain: Considering that there is a need to ensure the increase in system capacity by 2025 and ensure the economic and financial sustainability of companies, through the application of tariffs that more realistically reflect the costs of operators and allow for the progressive reduction of subsidies in tariffs for the end customer. The President of the Republic

decrees, under the terms of paragraph d) of article 120 and paragraph 3 of article 125, both of the Constitution of the Republic, the following:

Article 1 (Object)

The purpose of this Diploma is to approve the process of extinction of the public companies ENE - National Electricity Company and EDEL - Electricity Distribution Company and the creation of new public companies for the electricity sector.

Article 2 (Termination)

The public companies ENE - National Electricity Company, EP and EDEL - Electricity Distribution Company, EP are extinguished

Article 3 (National Electricity Transmission Network, EP)

1. The company Rede Nacional de Transporte de Electricidade, EP, abbreviated as RNT, EP, is hereby created, dedicated exclusively to the management of the system, the operation of the market (single buyer) and the management of the transmission network, and its organic statute, as set out in Annex I of this Diploma and which forms an integral part thereof, is approved.
2. The assets of the National Electricity Transmission Network, EP, are the result of the incorporation of the assets of the Transmission segment of the former ENE - National Electricity Company, EP, as well as the Transmission assets that are in operation and whose ownership is held by GAMEK - Gabinete de Aproveitamento do Médio Kwanza.
3. The universality of the rights and obligations resulting from the Transportation segment of the extinct ENE - National Electricity Company, EP and the Transportation assets of GAMEK - Middle Kwanza Development Office, including the balances of the bank accounts assigned to this business segment, are transferred to the National Electricity Transportation Network, EP.
4. The transfer takes place automatically from the date of entry into force of this Presidential Decree, which constitutes sufficient title for all legal purposes.
5. Workers assigned to the Transport segment of the former ENE - National Electricity Company, EP,

on the date this Diploma comes into force, automatically transfer to the National Electricity Transport Network, EP, with all acquired obligations and rights.

Article 4 (Public Electricity Production Company, EP)

1. The Public Electricity Production Company, EP, abbreviated as PRODEL, EP, is hereby created, responsible for the operation, under a public service regime, of the electricity production centres and the respective organic statute contained in Annex II of this Diploma, which forms an integral part thereof, is approved.
2. The assets of the Public Electricity Production Company, EP are the result of the incorporation of the assets of the Production segment of the extinct ENE - National Electricity Company - EP and the assets of GAMEK - Middle Kwanza Development Office relating to the Capanda Hydroelectric Project.
3. The universality of the rights and obligations resulting from the Production segment of the extinct ENE - National Electricity Company, EP, and of all existing production infrastructure, including the Capanda Hydroelectric Plant and all its assets, including the balances of the bank accounts assigned to this business segment, are transferred to the Public Electricity Production Company, EP.
4. The transfer takes place automatically from the date of entry into force of this Presidential Decree, which constitutes sufficient title for all legal purposes.
5. Workers assigned to the Production segment of the former ENE - National Electricity Company, EP and the entire production infrastructure of the Capanda Hydroelectric Project, assigned to the Middle Kwanza Development Office, on the date this Diploma comes into force, will automatically transfer to the Public Electricity Production Company, EP, with all the obligations and rights acquired.
6. The Public Electricity Production Company, EP must assume the legal position, on the date of entry into force of this Diploma, in relation to all acts carried out and contracts concluded by the Production segment of the extinct ENE - National Electricity Company, EP, as well as those relating to the production infrastructure of the Capanda Hydroelectric Plant of GAMEK - Middle Kwanza Development Office.

Article 5 (National Electricity Distribution Company, EP)

1. The National Electricity Distribution Company, EP, abbreviated ENDE, EP, is hereby created, dedicated exclusively to the commercialization and distribution of electrical energy, within the scope of the Public Electricity System and its respective organic statute contained in Annex III of this Diploma, which is an integral part thereof, is approved.
2. The assets of the National Electricity Distribution Company-EP are the result of the incorporation of the assets of the former EDEL - Electricity Distribution Company, EP and the Distribution segment of the former ENE - National Electricity Company, EP
3. The universality of the rights and obligations resulting from the Distribution segment of the former ENE - National Electricity Company, EP and the former EDEL - Electricity Distribution Company, EP, including the balances of the bank accounts assigned to this business segment, are transferred to the National Electricity Distribution Company, EP.
4. The transfer takes place automatically from the date of entry into force of this Presidential Decree, which constitutes sufficient title for all legal purposes.
5. Workers assigned to the former EDEL – Electricity Distribution Company, EP and to the Distribution segment of the former ENE – National Electricity Company, EP, on the date this Diploma comes into force, will automatically transfer to the National Electricity Distribution Company, EP, with all obligations and rights acquired.
6. Employees in the corporate areas of the former ENE - Empresa Nacional de Electricidade, EP will automatically transfer, in their entirety, to the three new public companies created by this Presidential Decree, with the allocation being carried out according to the needs of each company.
7. The National Electricity Distribution Company, EP must assume the legal position, on the date of entry into force of this Diploma, in relation to all acts performed and contracts concluded by the extinct EDEL - Electricity Distribution Company, EP and by the Distribution segment of the extinct ENE - National Electricity Distribution Company, EP.

Article 6 (Transition Process)

The Minister of Energy and Water must carry out the acts that are necessary to conduct the transition process, in accordance with the legislation in force, until the Boards of Directors of the Companies created by this Diploma take office.

Article 7 (Revocation)

Decree No. 24/80 of 20 March, which creates the National Electricity Company, ENE, and Decree No. 29/98 of 4 September, which approves its Organic Statute, Decree No. 33/99 of 19 November, which establishes and

approves the Organic Statute of the Electricity Distribution Company, EDEL, as well as all legislation that contradicts the provisions of this Presidential Decree, are hereby revoked.

Article 8 (Questions and Omissions)

Any doubts and omissions resulting from the interpretation and application of this Diploma shall be resolved by the President of the Republic.

Article 9 (Entry into Force)

This Presidential Decree shall come into force on the date of its publication. -Let it be published. Luanda, 14 November 2014. The President of the Republic, José Eduardo dos Santos. ANNEX IA REFERRED TO IN ARTICLE 3.

ORGANIC STATUTE OF THE NATIONAL ELECTRICITY TRANSPORTATION NETWORK, EP

CHAPTER I GENERAL

Article 1 (Name)

The National Electricity Transport Network, abbreviated as RNT - EP, is a company of strategic interest, with legal personality and administrative, financial, asset and management autonomy.

Article 2 (Legal Framework)

The National Electricity Transmission Network is governed by this Statute, by complementary implementing rules, by the legislation applicable to public companies and, where not specifically regulated, by the rules of Commercial Law and other rules of private law in force.

Article 3 (Headquarters and Representations)

1. The National Electricity Transport Network has its headquarters in Luanda and may, by resolution of the Board of Directors, establish and close branches, subsidiaries, agencies or other forms of representation in any part of the national territory or abroad, as well as decentralize its technical and administrative services, in accordance with the needs of its activity.
2. The establishment of branches, subsidiaries or other forms of representation of the company, in any part of the national territory or abroad, requires prior compliance with the applicable legal provisions.

Article 4 (Corporate Purpose)

1. The main purpose of the National Electricity Transmission Network is to transport electrical energy through the operation of the National Transmission Network, which comprises the Very High Voltage (VHV) network, the interconnection network, the national dispatch facilities and related assets and rights, in parallel with the function of market operator (single buyer), under the terms of the Concession, the General Electricity Law and its Regulations.
2. Additionally, the company may carry out other industrial or commercial activities, either directly or in association with third parties, by decision of its Board of Directors, provided that the objectives do not harm its corporate purpose.
3. The National Electricity Transmission Network may, in pursuit of its main purpose and by decision of the Board of Directors, propose the creation of new companies and the acquisition of all or part of the capital of companies already created or to be created.
4. The company may also, under the terms of the legislation in force, and by decision of the Board of Directors, establish with national or foreign entities the forms of association or cooperation that best enable the achievement of its corporate purpose.
5. The exercise of other activities, as well as the creation of new companies or the establishment of associations, under the terms of paragraphs 2, 3 and 4 of this article, must be carried out with the prior authorization of the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector.

Article 5 (Statutory Capital)

1. The statutory capital of the National Electricity Transmission Network, realized by accounting segregation of ENE - Empresa Nacional de Electricidade-EP, is AKz: 11,579,154,838.23 equivalent to USD 118,893,479.26, with the remaining equity consisting of other equity funds in the amount of AKz: 278,440,465,658.67 equivalent to USD 2,858,995,858.54.
2. The statutory capital may be reinforced with State allocations, through the incorporation of reserves or other own funds, subject to prior authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector, on a proposal from the Board of Directors, accompanied by an opinion from the Supervisory Board, in accordance with the legislation in force.

CHAPTER II ORGANIZATION AND OPERATION

SECTION I BODIES IN GENERAL

Article 6 (Bodies)

The following are bodies of the National Electricity Transmission Network - EP:

- a)- The Board of Directors;
- b)- The Supervisory Board.

SECTION II OF SPECIAL

SUBSECTION I BOARD OF DIRECTORS

Article 7 (Nature and Composition)

1. The Board of Directors is the management body of the National Electricity Transmission Network that reports to the Government, without prejudice to the civil liability that its members incur towards the company or third parties and the criminal liability that they incur.
2. The Board of Directors is composed of seven members, five executives and two non-executives, one of whom is the chairman, whose designation must be included in the appointment document.
3. The members of the Board of Directors are appointed and dismissed by the Head of the Executive Branch.
4. The appointment of members of the Board of Directors must observe the criteria and requirements established in the Public Manager Statute.

Article 8 (Powers of the Board of Directors)

1. The Board of Directors is vested with powers to act on behalf of the company, and must exercise them within the limits of the law and these Articles of Association.
2. The Board of Directors is responsible for exercising all powers necessary to ensure the management and development of the company and the administration of its assets.
3. The Board of Directors is specifically responsible, without prejudice to the powers of the Supervisory Authority:
    - a)- Approve the company's objectives and management policies;
    - b)- Approve the annual and multi-annual activity and financial plans and the annual budgets, as well as make the necessary changes or updates;
    - c)- Represent the company in and out of court, actively or passively, as well as confess or compromise in any actions;
    - d)- Approve the annual reports and accounts and submit them for approval by the competent entities;
    - e)- Approve the operating regulations of the Board of Directors;
    - f)- Approve the company's technical-administrative organization and internal operating rules;
    - g)- Approve the participation or association with other companies, as well as the exercise of new activities or the cessation of existing ones, in accordance with the legislation in force;
    - h)- Approve the acquisition and disposal of assets and financial holdings, when these are not provided for in the approved annual budgets, and within the limits defined by law or the Statutes;
    - i)- Approve the rules relating to personnel;
    - j)- Submit for approval or authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector the acts and documents that, under the terms of the law or the statute, must be so;
    - k)- Manage and carry out acts relating to the company's purpose;
    - l)- Participate with the competent entities in the approval of price or tariff proposals to be applied by the company;
    - m)- Decide on taking out short, medium or long-term loans;
    - n)- Appoint representatives with the powers it deems appropriate;

- o)- Exercise other powers arising from the law.

Article 9 (Delegation of Powers)

1. The Board of Directors may, within the legal and statutory limits, delegate some of its powers to one or more of its members, through:
    - a)- Designation of managing directors;
    - b)- Appointment of those responsible;
    - c)- Power of attorney for specific acts.
2. The provisions of the previous paragraph do not prejudice the right to invoke delegated powers.

Article 10 (Chairman of the Board of Directors)

The Chairman of the Board of Directors is responsible for:

- a)- Represent the company in and out of court, actively and passively;
- b)- Coordinate the activity;
- c)- Ensure the correct application of the decisions;
- d)- Convene and preside over meetings;
- e)- Appoint, reappoint or dismiss company officials, upon proposal from the Board of Directors;
- f)- Ensure relations with the Government;

- g)- Exercise other powers arising from the law or delegated to it by the Board of Directors.

Article 11 (Portfolios)

1. The directors' responsibilities are those defined in the appointment act, which correspond to one or more areas of the company's activity, aiming at the necessary decentralization of powers in monitoring the company's activities.
2. It is the responsibility of administrators, in particular, under the terms of the previous number:
    - a)- Coordinate the activities of the respective areas and ensure the correct application of the Board of Directors' decisions;
    - b)- Monitor the company's activities and propose measures aimed at maximizing income and others that they deem appropriate;

- c)- Exercise other powers assigned to them by the Board of Directors.

Article 12 (Meetings and Deliberations of the Board of Directors)

1. The Board of Directors meets ordinarily once a month and extraordinarily whenever convened by its chairman, on his own initiative, at the request of the majority of its members or at the request of the Supervisory Board.
2. The Board of Directors' decisions must be taken in the presence of the majority of its members, in office, and by a simple majority of votes.
3. Members of the Board of Directors cannot vote on matters that have, on their own behalf or on behalf of third parties, interests that conflict with the company.
4. Other entities may be present at Board of Directors meetings, especially those invited for that purpose, but without the right to vote.
5. Members of the Supervisory Board may also attend meetings of the Board of Directors.
6. The members of the Board of Directors have a special duty not to disclose matters discussed by the Board or facts inherent to the company or companies in which they have a stake, of which they become aware in the exercise of their functions, and must also keep the documentation in a safe place, classified as confidential.
7. Minutes are drawn up for all meetings of the Board of Directors in specific books, which must be signed by all members who participated and must include:
    - a)- The topics discussed;
    - b)- The summary of decisions;
    - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 13 (Mandate)

The term of office of the members of the Board of Directors is five years, renewable one or more times, and they continue to exercise their functions until their effective replacement or declaration of termination of functions.

Article 14 (Method of Obligating the Company)

1. The company is bound, before third parties, by the acts of the Board of Directors, when carried out in its name, in compliance with its powers, under the terms of the respective regulations, or by any legally constituted representative thereof and within the powers established in these Bylaws.
2. The company is bound by the signatures of two members of the Board of Directors, one of whom is the chairman, or two directors specially authorized by the Board of Directors, or a proxy, specially mandated for this purpose by the Board of Directors.
3. In matters of mere procedure, the signature of an administrator or a person responsible for the company is sufficient.

Article 15 (Responsibility of Directors)

1. The company's directors are civilly liable to the company for losses caused by acts or omissions carried out in breach of legal or statutory duties, unless proven otherwise.
2. Directors who did not participate or voted against are not liable for any loss caused in the execution of a decision of the Board of Directors.
3. Directors are responsible for monitoring their peers with management powers and any other company officials and, consequently, for the losses caused by their acts or omissions, when, having knowledge of them or intending to commit them, they do not prompt immediate intervention by the Board of Directors to take the measures deemed appropriate to the circumstances.
4. The opinion of the Supervisory Board does not exempt the administrators from liability.
5. The provisions of the previous numbers do not exclude the criminal or disciplinary liability incurred by the company's managers, under the terms of the legislation in force.

Article 16 (Remuneration of Members of the Board of Directors)

1. The remuneration of the members of the Board of Directors is set by specific legislation, in

accordance with the combined provisions of paragraph 3 of article 36 and paragraph d) of paragraph 3 of article 44 of the Basic Law of the Public Business Sector.
2. Without prejudice to the previous number, it is up to the Holder of the Executive Power, or to whom he delegates, under the terms of the law, to set the additional remunerations for the members of the Board of Directors, based on the company's results.

SUBSECTION II FISCAL

Article 17 (Nature and Composition)

1. The Supervisory Board is the body responsible for monitoring and controlling the activities of the National Electricity Distribution Company, and is made up of three members, appointed by Joint Order of the Minister responsible for the Public Business Sector and Finance.
2. One of the members of the Supervisory Board, whose name is stated in the appointment act, is the chairman, with the other two being members.
3. The Chairman of the Supervisory Board is proposed by the Minister of Finance and the members are proposed, one by the Minister responsible for the Public Business Sector and the other by the Minister responsible for the Activity Sector.
4. The bonuses due to members of the Supervisory Board are set by specific legislation, in accordance with the law.

Article 18 (Powers of the Supervisory Board)

1. The Supervisory Board is responsible for the following:
    - a)- Monitor the management and compliance with the rules regulating the company's activity;
    - b)- Issue an opinion on the company's budget and financial operations;
    - c)- Certify the assets belonging to the company or held by it, as a guarantee, deposit or for any other purpose;
    - d)- Issue, on a legally established date, opinions on the company's accounting documents, namely the annual report and accounts;
    - e)- Pronounce on any matters submitted to it by the company's management bodies;
    - f)- Check the valuation criteria used by the company, which may lead to the correct assessment of assets and results;
    - g)- Carry out regular verification of existing funds and asset values and monitor the company's accounting records;
    - h)- Prepare annual reports on its monitoring activities and submit them for approval by the Ministers of Energy, Finance and Economy;
    - i)- Report any irregularity of which you are aware to the competent bodies;
    - j)- Request the convening of an extraordinary meeting of the Board of Directors, whenever deemed appropriate;
    - k)- Provide an opinion on any other matters of interest to the company.
2. The Fiscal Council's opinions must be issued within 30 days from the date of receipt of the supporting documents.
3. Whenever it deems it necessary, for the correct performance of its duties, the Supervisory Board may be assisted by external auditors hired by the company.

Article 19 (Meetings and Deliberations of the Supervisory Board)

1. The Fiscal Council meets ordinarily once per quarter and extraordinarily whenever convened by its president, on his own initiative or at the reasoned request of any of the members.
2. The Supervisory Board may, upon request from its chairman, meet with the Board of Directors whenever it deems it necessary or at the invitation of the chairman of this body.
3. The Supervisory Board may only validly deliberate in the presence of a simple majority of its members in office.
4. Decisions are taken by a majority vote of the members present, with the chairman or his/her substitute having a casting vote in the event of a tie in the vote.
5. Members of the Supervisory Board cannot vote on matters in which they have, on their own behalf or on behalf of third parties, interests in conflict with the company.
6. Minutes are drawn up for all meetings in specific books, which must be signed by all members who participated in them, and must include:
    - a)- The topics discussed;
    - b)- The summary of the discussions;
    - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 20 (Incompatibilities)

1. The following cannot be appointed as members of the company's Supervisory Board:
    - a)- Those who perform functions in the management of the company or have

performed them in the previous two years;
    - b)- Those who provide permanent paid services to the company;
    - c)- Those who perform management functions in competing or associated companies or societies;
    - d)- Those who are prohibited, incapacitated, insolvent, bankrupt or prohibited from exercising public functions;
    - e)- Spouses, relatives and in-laws in the direct line of persons prevented, under the terms of subparagraphs a), b) and c).
2. The occurrence of any of the facts indicated in the paragraphs of the previous number implies the expiry of the appointment.
3. The appointment of any member of the company's Supervisory Board to perform management functions within the company also implies the expiry of his/her previous appointment as a member of the Supervisory Board.

Article 21 (Powers)

In order to strictly perform their duties, the members of the Supervisory Board may, jointly or separately:

- a)- Obtain from the competent services the presentation, for examination and verification, of the company's books, records and other documents, as well as verify the existence of any valuables, namely money, securities, goods and other assets;
- b)- Obtain information or clarification from the management bodies or any of their members about the company's activity and operation or any of its businesses;
- c)- Request from third parties, who have carried out transactions with or on behalf of the company, the information they need to clarify these transactions;
- d)- Attend, whenever they deem appropriate, the meetings of the Board of Directors.

Article 22 (Duties)

1. The general duties of the members of the Supervisory Board are:
    - a)- Exercise conscientious and impartial supervision;
    - b)- Keep secret the facts of which they become aware by virtue of their functions or because of them, without prejudice to the obligation to report to the authorities any unlawful acts of which they become aware;
    - c)- Inform the Board of Directors of all checks, inspections and due diligence carried out and their respective results;
    - d)- Inform the competent entities of any irregularities and inaccuracies found and of any clarifications obtained;
    - e)- Participate in meetings of the Supervisory Board and attend joint meetings to which they are called or in which the financial year accounts are assessed.
2. Members of the Supervisory Board are prohibited from disclosing any commercial or industrial secrets of the company that they have become aware of in the performance of their duties.

Article 23 (Mandate)

1. The term of office of the members of the Supervisory Board is five years, renewable once or twice.
2. The mandate of the members of the Supervisory Board may be suspended or revoked, for duly substantiated reasons, by Joint Order of the Minister responsible for the Public Business Sector and Finance.

CHAPTER III GOVERNMENT

Article 24 (Intervention)

Government intervention in the National Electricity Transmission Network is exercised by the competent bodies, in accordance with the law.

Article 25 (Superintendence)

The superintendence of the National Electricity Transmission Network is exercised by the Holder of Executive Power, or by the Minister with delegated powers for this purpose, and is particularly responsible, under the terms of the legislation in force:

- a)- Establish the strategic objectives for the company's activity and the general framework within which it should develop, in order to ensure its harmonization with the Government's global and sectoral policies and with the national macroeconomic plan;
- b)- Regulate the exercise of the activity of the branch to which the company must be subordinate and monitor its compliance;
- c)- Analyze the technical, economic and financial information on the company's activity, regularly provided by it, and take appropriate measures, in accordance with the law;
- d)- Exercise other powers arising from the law.

Article 26 (State Local Administration Bodies)

The exercise of the Local State Administration body, where the National Electricity Transmission Network is a concessionaire or licensee, consists of making the company's plans and programs compatible with the development plans of the respective area of jurisdiction.

CHAPTER IV ASSET AND FINANCIAL

SECTION I ASSET MANAGEMENT

Article 27 (Company Assets)

1. The assets of the National Electricity Transmission Network are made up of all the assets, rights and obligations received, acquired or contracted for or in the exercise of its activity.
2. The company freely manages and disposes of its assets, in accordance with current legislation.
3. The company must keep up to date the records of the assets that make up its assets, including assets subject to the concession or license regime, which are assigned to its activity, and must also carry out the respective revaluation in accordance with the legislation in force.

Article 28 (Insurance)

The National Electricity Transmission Network must enter into and keep up to date insurance contracts for the assets that form part of its assets and other assets related to its activity and that are subject to compulsory insurance, in accordance with the legislation in force.

SECTION II FINANCIAL

Article 29 (Management Principles)

1. The management of the National Electricity Transmission Network must be conducted in a way that reconciles the State's economic and social policy with the technical, economic and financial viability of the company.
2. When guiding the company's management, the principles set out in the law and the following objectives must be observed:
    - a)- Objectives and indicators established by the State;
    - b)- Economic and financial self-sufficiency, except when the State imposes the practice of fixed prices or social objectives that are not economically profitable for the company;
    - c)- Investments to be made by the company must be subject to business decision criteria, namely in terms of rate of return, recovery period of the invested capital and degree of risk, except in the case of public investments supported by the State, in which case they will be subject to the regime defined by law or that which has been established by the State;
    - d)- The financial resources to be mobilized by the company must be appropriate to the nature of the assets to be financed;
    - e)- The company's financial structure must be compatible with its operating profitability and the level of risk of the activity;

- f)- The company's production process must be constantly improved, ensuring the systematic improvement of the quality of the services provided and its productivity.

Article 30 (Management Instruments)

The economic and financial management of the National Electricity Transmission Network is guaranteed through the following management instruments:

- a)- Multi-annual plans and budgets;
- b)- Annual plans and budgets;
- c)- Activity reports and accounts for the last financial year, adapted to the characteristics of the company and its monitoring needs;
- d)- Framework contract to be signed between the company and the State, in accordance with current legislation.

Article 31 (Multiannual Plans and Budgets)

1. Multi-annual plans establish the development strategy to be followed by the company, with a horizon of at least three years, and must contain, in particular, the following:
    - a)- Study of the environment in which the company operates, highlighting threats and opportunities;
    - b)- Study of the company, highlighting its strengths and weaknesses;
    - c)- Survey of the main constraints on the company's activity, both legal and market-related;
    - d)- The company's competitive advantages, with regard to services provided under a competitive regime;
    - e)- Positioning of the company in the market;
    - f)- The overall strategic orientation for the company;
    - g)- Business plan outlined for the period, including feasibility studies and sensitivity analyses;

- h)- Measures to enhance the company's potential for the planned business plan;
- i)- Contingency plans;
- j)- Assessment of the extent to which the company can meet the objectives and goals set by the State;
- k)- Guidance on technological development;
- l)- Employment policy;
- m)- Specific programs to improve service quality and productivity;
- n)- Specific human resources development programs.

2. Multiannual budgets must include, without prejudice to other elements arising from the specific nature of the activity and management requirements, the following:
   - a)- The investment program and respective sources of financing;
   - b)- The forecast operating account and the forecast foreign exchange balance;
   - c)- The projection of internal and external debt.
3. Multi-annual plans and budgets should be reviewed whenever circumstances warrant.

Article 32 (Annual Plans and Budgets)

1. The National Electricity Transmission Network must prepare, for each financial year, in due advance notice and in accordance with current legislation, its activity plan and budget, which are organised in compliance with the directives governing the presentation of plans and budgets and must contain the necessary details to facilitate the decentralisation of responsibilities and allow for adequate management control.
2. The draft annual plans and budgets referred to in the previous number are drawn up in accordance with the macroeconomic assumptions and other global and sectoral guidelines formulated by the Executive and must be submitted to the Supervisory Board before being approved.
3. The Board of Directors must promote the necessary changes to the plan and budget whenever compelling circumstances require them.

Article 33 (Accounts and Activity Reports)

1. The annual financial report must contain a clear and faithful explanation of the evolution of the company's activities and situation in the last financial year.
2. The report on accounts and activities must include, among other elements that may be requested, the following:
   - a)- The evolution of management in the different business sectors in which the company operates;
   - b)- Assessment of the operating account;
   - c)- Implementation of the investment program;
   - d)- Relevant facts that occurred during the financial year;
   - e)- The foreseeable evolution of the company;

- f)- Statistical indicators.

Article 34 (Rendering of Accounts)

1. Annually, with reference to 31 December of each year, the following accounting documents must be prepared:
   - a)- Management report;
   - b)- Balance sheet and income statement;
   - c)- Cash flow statement;
   - d)- Opinion of the Supervisory Body.
2. The documents referred to in the previous number must be supplemented with other elements of interest for the assessment of the company's situation, namely:
   - a)- Annexes to the balance sheet and income statement;
   - b)- Summary maps showing the degree of implementation of the activity plan and the activity budget and the annual budget;
   - c)- Other significant indicators of the company's activities and situation.
3. The accounting documents must be assessed by the Supervisory Board by 31 March of the year following the year to which they relate.
4. The report and accounts must be submitted to the Ministerial Department responsible for the Public Business Sector, within 30 days after the closing date of the accounts.

Article 35 (Revenue)

The following constitute revenues from the National Electricity Transmission Network:

- a)- The income resulting from its activity;
- b)- Income from own assets;
- c)- The proceeds from the issuance of securities or bonds, which must be authorized by the Minister responsible for the Public Business Sector, after consulting the Ministers responsible for the Activity and Finance Sectors;
- d)- The proceeds of loans and other financial operations, which, when carried out, must not compromise their immediate liquidity, and must be preceded by the authorization of the competent authorities;
- e)- Allocations or subsidies granted by the State;
- f)- The proceeds from the sale of one's own assets or the creation of rights over them;

- g)- Donations, inheritances or legacies intended for him/her;
- h)- Any other income or amounts that, by law or contract, belong to you.

Article 36 (Allocation of Profits)

1. A provision must be made from the profits of the National Electricity Transmission Network for the payment of taxes levied on them.
2. The remainder, plus any profits carried over from previous years, must be distributed as follows:
    - a)- Constitution of the legal reserve;
    - b)- Investment fund;
    - c)- Social fund;
    - d)- Delivery to the State of the part of the dividends that is due to him as owner of the company;
    - e)- Distribution of individual incentives to workers, including members of management bodies, as a form of profit sharing, in accordance with current legislation.
3. Upon proposal from the Board of Directors, the Minister of Economy is responsible for approving the allocation of the portion of profits referred to in the previous paragraph, as well as the creation of other reserves and funds deemed necessary for the company.

CHAPTER V PERSONNEL

Article 37 (Legal Framework)

1. The National Electricity Transmission Network must establish employment contracts with its workers in accordance with current employment legislation and applicable collective labor agreements, taking into account the needs of the company and the promotion and constant development of national workers.
2. The company's staff, their rights and obligations, benefits and the prospect of technical and professional development, namely the conditions that guide admission, suspension, dismissal, salaries, bonuses and other remunerations, the required qualifications, among other matters of human resources policy, must be included in internal regulations to be approved by the Board of Directors.
3. Civil servants and workers from other public companies or those with public domain may perform functions in the company, on a service commission, and they maintain all the rights inherent to their original framework, with the entire period of the commission being considered as service provided within that framework.
4. The company's employees may also perform functions in the State and in other public entities or in the public domain, on a service commission, maintaining all the rights inherent to their professional status in the respective company.
5. Workers, including civil servants, appointed on a service commission may, at any time, opt for the salary and social benefits of their original framework or those corresponding to the functions they perform.
6. The salaries and social security contributions of workers on secondment, including civil servants, are the responsibility of the entities where they are effectively employed.

Article 38 (Salary Policy)

1. Without prejudice to the previous article, the Board of Directors is responsible for setting, in accordance with the legislation in force, the salaries of the employees of the National Electricity Transmission Network's staff.
2. The Board of Directors may create bonuses to be awarded to employees to encourage increased productivity within the company.

Article 39 (Vocational Training)

1. The National Electricity Transmission Network must organize and develop professional training actions with the aim of raising the professional qualifications of its workers and adapting them to new management techniques and methods, in order to raise the level of performance of the company's activity and facilitate internal promotion and functional mobility of workers.
2. The company must also promote training activities for trainee workers in the process of integrating into the company.
3. The company, in accordance with its own regulations, approved by the Board of Directors, may also promote the training of employees by granting scholarships within and outside the country.
4. To ensure training activities, the company must use its own resources, using or associating itself, if necessary, with qualified external entities.

Article 40 (Participation in Management)

1. Workers' participation in the management of the company is ensured by one or more advisory committees, as deemed most appropriate, with powers delegated by the Workers' Assemblies.
2. The company's employees are represented on the employees' advisory committees in the proportion of one representative for every 150/250 active employees.
3. The workers' consultative committees are responsible, in particular, for giving their opinion on:

- a)- The company's plans and budget projects;
- b)- Degree of execution of the respective plans and budgets;
- c)- The level of productivity, discipline and attendance of workers;
- d)- The working and social conditions of workers;
- e)- Compliance with labor legislation and collective labor agreements;
- f)- Labor disputes;

- g)- All other issues that the company's management bodies decide to submit for its consideration.

CHAPTER VI FINAL

Article 41 (Mandates)

Once the term of office has ended, the members of the company's bodies remain in office until their effective replacement or declaration of termination of duties.

Article 42 (Calls)

1. All members in office must be summoned to meetings of the Board of Directors and Supervisory Board.
2. All members who:
   - a)- Have attended any previous meeting in which the day and time of the meeting were set in their presence;
   - b)- Attend the meeting;

   - c)- Have received and signed the notice.

3. All members are also considered to be regularly summoned to ordinary meetings that take place on the day and time pre-established in the bodies' regulations.
4. The notice must be accompanied by the agenda and a copy of the minutes of the previous session.
5. Minutes will be drawn up of all meetings, which will include:
   - a)- The topics discussed;
   - b)- The summary of the discussions;
   - c)- The decisions taken;

   - d)- The defeated votes, if any.

Article 43 (Liability to Third Parties)

1. The National Electricity Transmission Network is represented in court and out of court by the Chairman of the Board of Directors, who is civilly and criminally liable to third parties for the company's acts and omissions, in accordance with current legislation.
2. Only its assets are responsible for the company's obligations.

Article 44 (Retention of Archives)

1. The National Electricity Transmission Network must keep its main accounting and correspondence documents on file for a period of 10 years, and the remaining documents may be rendered useless with the authorization of the competent entities, 5 years after their preparation or entry.
2. Documents and books that must be kept in archives, as well as the correspondence referred to in the previous number, may be preserved using other appropriate registration processes accepted, in accordance with the legislation in force, and the records must be duly authenticated.
3. Without prejudice to the previous number, the originals shall be rendered useless with the express authorization of the Board of Directors, and the respective rendering useless report shall be drawn up.
4. Certified copies have the same evidentiary force as the originals, even if they result from the reproduction of the records that preserve them.

Article 45 (Internal Audit)

1. For the purposes of accounting and financial control and of the company's activities in general, there is an internal audit service, made up of specialized technicians, who exercise permanent control of the company's financial activities and records, in accordance with the legislation in force.
2. Internal audit must submit the following documents to the Chairman of the Board of Directors:
   - a)- Quarterly reports on the activity carried out;

   - b)- Specific reports on any anomalies found.

Article 46 (External Audit)

1. The company's activities and accounts are subject to an annual external audit to be carried out by a specialized legal entity of recognized suitability and established in Angola.
2. The provisions of paragraph 1 do not exempt the Supervisory Board from issuing an opinion on the company's accounts.

Article 47 (Hiring of Companies and Experts)

The company may, by resolution of the Board of Directors, in order to achieve its purpose, hire companies or specialists of recognized technical suitability, in accordance with the legislation in force.

Article 48 (Right of Participation or Association)

The company may participate in associations or organizations of a technical, scientific and business nature at regional, national or international level of interest to the Electric Energy Sector;

Article 49 (Preservation of the Environment)

In carrying out its activities, the company complies with environmental requirements, in accordance with current legislation and the respective concessions or licenses.

Article 50 (Minimum Services)

In cases of strike, company workers are obliged to guarantee, in accordance with current legislation, minimum services of public interest.

Article 51 (Internal Regulations)

The bodies of the National Electricity Transmission Network are governed by their own regulations approved by the Board of Directors, except in the case of special legislation.

Article 52 (Dispute Resolution)

1. The courts are responsible for judging disputes in which the company is a party, including actions to establish liability, as well as assessing the liability of the holders of these bodies towards the respective company.
2. The provisions of the previous paragraph do not prejudice the possibility of the National Electricity Transmission Network (EP) using arbitration to resolve disputes. ANNEX II REFERRED TO IN ARTICLE 4

ORGANIC STATUTE OF THE PUBLIC ELECTRICITY

CHAPTER I GENERAL

Article 1 (Name)

The Public Electricity Production Company, abbreviated as PRODEL-EP, is a company of strategic interest, endowed with legal personality and administrative, financial, patrimonial and management autonomy.

Article 2 (Legal Framework)

The Public Electricity Production Company is governed by this Statute, by complementary implementing rules, by the legislation applicable to public companies and, where not specifically regulated, by the rules of Commercial Law and other private law rules in force.

Article 3 (Headquarters and Representations)

1. The Public Electricity Production Company has its headquarters in Luanda and may, by resolution of the Board of Directors, establish and close branches, subsidiaries, agencies or other forms of representation in any part of the national territory or abroad, as well as decentralize its technical and administrative services, in accordance with the needs of its activity.
2. The establishment of branches, subsidiaries or other forms of representation of the company, in any part of the national territory or abroad, requires prior compliance with the applicable legal provisions.

Article 4 (Corporate Purpose)

1. The main purpose of the Public Electricity Production Company is to produce electrical energy within the scope of the Public Electricity System (SEP), under the terms and conditions of the respective concessions or licenses.
2. Additionally, the company may carry out other industrial or commercial activities, either directly or in association with third parties, by decision of its Board of Directors, provided that the objectives do not harm its corporate purpose.
3. The Public Electricity Production Company may, in pursuit of its main purpose and by decision of the Board of Directors, propose the creation of new companies and the acquisition of all or part of the capital of companies already created or to be created.
4. The company may also, under the terms of the legislation in force, and by decision of the Board of Directors, establish with national or foreign entities the forms of association or cooperation that best enable the achievement of its corporate purpose.
5. The exercise of other activities, as well as the constitution of new companies or the establishment of associations, under the terms of paragraphs 2, 3 and 4 of this article, must be carried out with the prior authorization of the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector.

Article 5 (Statutory Capital)

1. The statutory capital of the Public Electricity Production Company, realized by accounting

segregation of ENE - National Electricity Company-EP and GAMEK - Gabinete de Aproveitamento do Médio Kwanza, is AKz: 233,910,935,409.71, equivalent to USD 2,401,771,574.48, with the remaining equity consisting of other equity funds in the amount of AKz: 252,783,387,077.82, equivalent to USD 2,595,551,817.70.

2. The statutory capital may be reinforced with State allocations, through the incorporation of reserves or other own funds, subject to prior authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector, on a proposal from the Board of Directors, accompanied by an opinion from the Supervisory Board, in accordance with the legislation in force.

CHAPTER II ORGANIZATION AND OPERATION

SECTION I BODIES IN GENERAL

Article 6 (Bodies)

The following are bodies of the Public Electricity Production Company:

- a)- The Board of Directors;
- b)- The Supervisory Board.

SECTION II OF SPECIAL

SUBSECTION I BOARD OF DIRECTORS

Article 7 (Nature and Composition)

1. The Board of Directors is the management body of the Public Electricity Production Company that answers to the Government, without prejudice to the civil liability that its members incur towards the company or third parties and the criminal liability that they incur.
2. The Board of Directors is composed of seven members, five Executives and two Non-Executives, one of whom is the Chairman, whose designation must be included in the appointment document.
3. The members of the Board of Directors are appointed and dismissed by the Head of the Executive Branch.
4. The appointment of members of the Board of Directors must observe the criteria and requirements established in the Public Manager Statute.

Article 8 (Powers of the Board of Directors)

1. The Board of Directors is vested with powers to act on behalf of the company, and must exercise them within the limits of the law and these Articles of Association.
2. The Board of Directors is responsible for exercising all powers necessary to ensure the management and development of the company and the administration of its assets.
3. The Board of Directors is specifically responsible, without prejudice to the powers of the Supervisory Authority:
    - a)- Approve the company's objectives and management policies;
    - b)- Approve the annual and multi-annual activity and financial plans and the annual budgets, as well as make the necessary changes or updates;
    - c)- Represent the company in and out of court, actively or passively, as well as confess or compromise in any actions;
    - d)- Approve the annual reports and accounts and submit them for approval by the competent entities;
    - e)- Approve the operating regulations of the Board of Directors;
    - f)- Approve the company's technical-administrative organization and internal operating rules;
    - g)- Approve the participation or association with other companies, as well as the exercise of new activities or the cessation of existing ones, in accordance with the legislation in force;
    - h)- Approve the acquisition and disposal of assets and financial holdings, when these are not provided for in the approved annual budgets, and within the limits defined by law or the Statutes;
    - i)- Approve the rules relating to personnel;
    - j)- Submit for approval or authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector the acts and documents that, under the terms of the law or the Statute, must be so;
    - k)- Manage and carry out acts relating to the company's purpose;
    - l)- Participate with the competent entities in the approval of price proposals to be charged by the company;
    - m)- Decide on taking out short, medium or long-term loans;
    - n)- Appoint representatives with the powers it deems appropriate;

- o)- Exercise other powers arising from the law.

Article 9 (Delegation of Powers)

1. The Board of Directors may, within the legal and statutory limits, delegate some of its powers to one or more of its members, through:
    - a)- Designation of managing directors;
    - b)- Appointment of those responsible;
    - c)- Power of attorney for specific acts.
2. The provisions of the previous paragraph do not prejudice the right to invoke delegated powers.

Article 10 (Chairman of the Board of Directors)

The Chairman of the Board of Directors is responsible for the following:

- a)- Represent the company in and out of court, actively and passively;
- b)- Coordinate the activity;
- c)- Ensure the correct application of the decisions;
- d)- Convene and preside over meetings;
- e)- Appoint, reappoint or dismiss company officials, upon proposal from the Board of Directors;
- f)- Ensure relations with the Government;
- g)- Exercise other powers arising from the law or delegated to it by the Board of Directors.

Article 11 (Portfolios)

1. The Directors' responsibilities are those defined in the appointment act, which correspond to one or more areas of the company's activity, aiming at the necessary decentralization of powers in monitoring the company's activities.
2. The Administrators, under the terms of the previous number, are specifically responsible for the following:
    - a)- Coordinate the activities of the respective areas and ensure the correct application of the Board of Directors' decisions;
    - b)- Monitor the company's activities and propose measures aimed at maximizing income and others that they deem appropriate;

- c)- Exercise other powers assigned to them by the Board of Directors.

Article 12 (Meetings and Deliberations of the Board of Directors)

1. The Board of Directors meets ordinarily once a month and extraordinarily whenever convened by its chairman, on his own initiative, at the request of the majority of its members or at the request of the Supervisory Board.
2. The Board of Directors' decisions must be taken in the presence of the majority of its members, in office, and by a simple majority of votes.
3. Members of the Board of Directors cannot vote on matters that have, on their own behalf or on behalf of third parties, interests that conflict with the company.
4. Other entities may be present at Board of Directors meetings, especially those invited for that purpose, but without the right to vote.
5. Members of the Supervisory Board may also attend meetings of the Board of Directors.
6. The members of the Board of Directors have a special duty not to disclose matters discussed by the Board or facts inherent to the company or companies in which they have a stake, of which they become aware in the exercise of their functions, and must also keep the documentation in a safe place, classified as confidential.
7. Minutes are drawn up for all meetings of the Board of Directors in specific books, which must be signed by all members who participated and must include:
    - a)- The topics discussed;
    - b)- The summary of decisions;
    - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 13 (Mandate)

The term of office of the members of the Board of Directors is five years, renewable one or more times, and they continue to exercise their functions until their effective replacement or declaration of termination of functions.

Article 14 (Method of Obligating the Company)

1. The company is bound, before third parties, by the acts of the Board of Directors, when carried out in its name, in compliance with its powers, under the terms of the respective regulations, or by any legally constituted representative thereof and within the powers established in these Bylaws.
2. The company is bound by the signatures of two members of the Board of Directors, one of whom is the chairman, or two directors specially authorized by the Board of Directors, or a proxy, specially mandated for this purpose by the Board of Directors.
3. In matters of mere procedure, the signature of an administrator or a person responsible for the company is sufficient.

Article 15 (Responsibility of Directors)

1. The company's Directors are civilly liable to the company for losses caused by acts or omissions carried out in breach of legal or statutory duties, unless proven otherwise.
2. Directors who did not participate or voted against the decision are not liable for any loss caused by the execution of a decision of the Board of Directors.
3. Directors are responsible for monitoring their peers with management powers and any other company officials and, consequently, for the losses caused by their acts or omissions, when, having knowledge of them or intending to commit them, they do not prompt immediate intervention by the Board of Directors to take the measures deemed appropriate to the circumstances.
4. The opinion of the Supervisory Board does not exempt the Directors from liability.
5. The provisions of the previous numbers do not exclude the criminal or disciplinary liability incurred by the company's managers, under the terms of the legislation in force.

Article 16 (Remuneration of Members of the Board of Directors)

1. The remuneration of the members of the Board of Directors is set by specific legislation, in accordance with the combined provisions of paragraph 3 of article 36 and paragraph d) of paragraph 3 of article 44 of the Public Business Sector Law.
2. Without prejudice to the previous number, it is up to the Holder of Executive Power, or to whom he delegates, under the terms of the law, to set the additional remunerations for the members of the Board of Directors, based on the company's results.

SUBSECTION II FISCAL

Article 17 (Nature and Composition)

1. The Supervisory Board is the body responsible for monitoring and controlling the activities of the Public Electricity Production Company, and is made up of three members, appointed by Joint Order of the Minister responsible for the Public Business Sector and Finance.
2. One of the members of the Supervisory Board, whose name is stated in the appointment act, is the chairman, with the other two being members.
3. The Chairman of the Supervisory Board is proposed by the Minister of Finance and the Members are proposed, one by the Minister responsible for the Public Business Sector and the other by the Minister responsible for the Activity Sector.
4. The bonuses due to members of the Supervisory Board are set by specific legislation, in accordance with the law.

Article 18 (Powers of the Supervisory Board)

1. The Supervisory Board is responsible for the following:
    - a)- Monitor the management and compliance with the rules regulating the company's activity;
    - b)- Issue an opinion on the company's budget and financial operations;
    - c)- Certify the assets belonging to the company or held by it, as a guarantee, deposit or for any other purpose;
    - d)- Issue, on a legally established date, opinions on the company's accounting documents, namely, the annual report and accounts;
    - e)- Pronounce on any matters submitted to it by the company's management bodies;
    - f)- Check the valuation criteria used by the company, which may lead to the correct assessment of assets and results;
    - g)- Carry out regular verification of existing funds and asset values and monitor the company's accounting records;
    - h)- Prepare annual reports on its monitoring activities and submit them for approval by the Ministers of Energy, Finance and Economy;
    - i)- Report any irregularity of which you are aware to the competent bodies;
    - j)- Request the convening of an extraordinary meeting of the Board of Directors, whenever deemed appropriate;
    - k)- Provide an opinion on any other matters of interest to the company.
2. The Fiscal Council's opinions must be issued within 30 days from the date of receipt of the supporting documents.
3. Whenever it deems it necessary, for the correct performance of its duties, the Supervisory Board may be assisted by external auditors hired by the company.

Article 19 (Meetings and Deliberations of the Supervisory Board)

1. The Fiscal Council meets ordinarily once per quarter and extraordinarily whenever convened by its president, on his own initiative or at the reasoned request of any of the members.
2. The Supervisory Board may, upon request from its chairman, meet with the Board of Directors

whenever it deems it necessary or at the invitation of the chairman of this body.

3. The Supervisory Board may only validly deliberate in the presence of a simple majority of its members in office.
4. Decisions are taken by a majority vote of the members present, with the chairman or his/her substitute having a casting vote in the event of a tie in the vote.
5. Members of the Supervisory Board cannot vote on matters in which they have, on their own behalf or on behalf of third parties, interests in conflict with the company.
6. Minutes are drawn up for all meetings in specific books, which must be signed by all members who participated in them, and must include:
    - a)- The topics discussed;
    - b)- The summary of the discussions;
    - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 20 (Incompatibilities)

1. The following cannot be appointed as members of the company's Supervisory Board:
    - a)- Those who perform functions in the management of the company or have performed them in the previous two years;
    - b)- Those who provide permanent paid services to the company;
    - c)- Those who perform management functions in competing or associated companies or societies;
    - d)- Those who are prohibited, incapacitated, insolvent, bankrupt or prohibited from exercising public functions;
    - e)- Spouses, relatives and in-laws in the direct line of persons prevented under the terms of subparagraphs a), b) and c).
2. The occurrence of any of the facts indicated in the paragraphs of the previous number implies the expiry of the appointment.
3. The appointment of any member of the company's Supervisory Board to perform management functions within the company also implies the expiry of his/her previous appointment as a member of the Supervisory Board.

Article 21 (Powers)

In order to strictly perform their duties, the members of the Supervisory Board may, jointly or separately:

- a)- Obtain from the competent services the presentation, for examination and verification, of the company's books, records and other documents, as well as verify the existence of any valuables, namely money, securities, goods and other assets;
- b)- Obtain information or clarification from the management bodies or any of their members about the company's activity and operation or any of its businesses;
- c)- Request from third parties, who have carried out transactions with or on behalf of the company, the information they need to clarify these transactions;
- d)- Attend, whenever deemed appropriate, the meetings of the Board of Directors.

Article 22 (Duties)

1. The general duties of the members of the Supervisory Board are:
    - a)- Exercise conscientious and impartial supervision;
    - b)- Keep secret the facts of which they become aware by virtue of their functions or because of them, without prejudice to the obligation to report to the authorities any unlawful acts of which they become aware;
    - c)- Inform the Board of Directors of all checks, inspections and due diligence carried out and their respective results;
    - d)- Inform the competent entities of any irregularities and inaccuracies found and of any clarifications obtained;
    - e)- Participate in meetings of the Supervisory Board and attend joint meetings to which they are called or in which the financial year accounts are assessed.
2. Members of the Supervisory Board are prohibited from disclosing any commercial or industrial secrets of the company that they have become aware of in the performance of their duties.

Article 23 (Mandate)

1. The term of office of the members of the Supervisory Board is five years, renewable once or twice.
2. The mandate of the members of the Supervisory Board may be suspended or revoked, for duly substantiated reasons, by Joint Order of the Minister responsible for the Public Business Sector and Finance.

CHAPTER III GOVERNMENT

Article 24 (Intervention)

Government intervention in the Public Electricity Production Company is exercised by the competent bodies, in accordance with the law.

Article 25 (Superintendence)

The supervision of the Public Electricity Production Company is exercised by the Holder of Executive Power, or by the Minister, with powers delegated for this purpose, and it is their responsibility, in particular, under the terms of the legislation in force:

- a)- Establish the strategic objectives for the company's activity and the general framework within which it should develop, in order to ensure its harmonization with the Government's global and sectoral policies and with the national macroeconomic plan;
- b)- Regulate the exercise of the activity of the branch to which the company must be subordinate and monitor its compliance;
- c)- Analyze the technical, economic and financial information on the company's activity, regularly provided by it, and take appropriate measures, in accordance with the law;
- d)- Exercise other powers arising from the law.

Article 26 (State Local Administration Bodies)

The exercise of the Local State Administration body, where the Public Electricity Production Company is the concessionaire or licensee, consists of making the company's plans and programs compatible with the development plans of the respective area of jurisdiction.

CHAPTER IV ASSET AND FINANCIAL

SECTION I ASSET MANAGEMENT

Article 27 (Company Assets)

1. The assets of the Public Electricity Production Company are made up of all the assets, rights and obligations received, acquired or contracted for or in the exercise of its activity.
2. The company freely manages and disposes of its assets, in accordance with current legislation.
3. The company must keep up to date the records of the assets that make up its assets, including assets subject to the concession or license regime, which are assigned to its activity, and must also carry out the respective revaluation in accordance with the legislation in force.

Article 28 (Insurance)

The Public Electricity Production Company must enter into and keep up to date insurance contracts for the assets that form part of its assets and other assets related to its activity and that are subject to compulsory insurance, in accordance with the legislation in force.

SECTION II FINANCIAL

Article 29 (Management Principles)

1. The management of the Public Electricity Production Company must be conducted in such a way as to reconcile the State's economic and social policy with the technical, economic and financial viability of the company.
2. When guiding the company's management, the principles set out in the law and the following objectives must be observed:
    - a)- Objectives and indicators established by the State;
    - b)- Economic and financial self-sufficiency, except when the State imposes the practice of fixed prices or social objectives that are not economically profitable for the company;
    - c)- Investments to be made by the company must be subject to business decision criteria, namely in terms of rate of return, recovery period of the invested capital and degree of risk, except in the case of public investments supported by the State, in which case they will be subject to the regime defined by law or that which has been established by the State;
    - d)- The financial resources to be mobilized by the company must be appropriate to the nature of the assets to be financed;
    - e)- The company's financial structure must be compatible with its operating profitability and the level of risk of the activity;

- f)- The company's production process must be constantly improved, ensuring the systematic improvement of the quality of the services provided and its productivity.

Article 30 (Management Instruments)

The economic and financial management of the National Electricity Production Company is guaranteed through the following management instruments:

- a)- Multi-annual plans and budgets;
- b)- Annual plans and budgets;
- c)- Activity reports and accounts for the last financial year, adapted to the characteristics of the company and its monitoring needs;

- d)- Framework contract to be signed between the company and the State, in accordance with current legislation.

Article 31 (Multiannual Plans and Budgets)

1. Multi-annual plans establish the development strategy to be followed by the company, with a horizon of at least three years, and must contain, in particular, the following:
    - a)- Study of the environment in which the company operates, highlighting threats and opportunities;
    - b)- Study of the company, highlighting its strengths and weaknesses;
    - c)- Survey of the main constraints on the company's activity, both legal and market-related;
    - d)- The company's competitive advantages, with regard to services provided under a competitive regime;
    - e)- Positioning of the company in the market;
    - f)- The overall strategic orientation for the company;
    - g)- Business plan outlined for the period, including feasibility studies and sensitivity analyses;
    - h)- Measures to enhance the company's potential for the planned business plan;
    - i)- Contingency plans;
    - j)- Assessment of the extent to which the company can meet the objectives and goals set by the State;
    - k)- Guidance on technological development;
    - l)- Employment policy;
    - m)- Specific programs to improve service quality and productivity;
    - n)- Specific human resources development programs.
2. Multiannual budgets must include, without prejudice to other elements arising from the specific nature of the activity and management requirements, the following:
    - a)- The investment program and respective sources of financing;
    - b)- The forecast operating account and the forecast foreign exchange balance;
    - c)- The projection of internal and external debt.
3. Multi-annual plans and budgets should be reviewed whenever circumstances warrant.

Article 32 (Annual Plans and Budgets)

1. The Public Electricity Production Company must prepare, for each financial year, in due advance notice and in accordance with current legislation, its activity plan and budget, which are organised in compliance with the directives governing the presentation of plans and budgets and must contain the necessary details to facilitate the decentralisation of responsibilities and allow for adequate management control.
2. The draft annual plans and budgets referred to in the previous number are drawn up in accordance with the macroeconomic assumptions and other global and sectoral guidelines formulated by the Executive and must be submitted to the Supervisory Board before being approved.
3. The Board of Directors must promote the necessary changes to the plan and budget whenever compelling circumstances require them.

Article 33 (Accounts and Activity Reports)

1. The annual financial report must contain a clear and faithful explanation of the evolution of the company's activities and situation in the last financial year.
2. The report on accounts and activities must include, among other elements that may be requested, the following:
    - a)- The evolution of management in the different business sectors in which the company operates;
    - b)- Assessment of the operating account;
    - c)- Implementation of the investment program;
    - d)- Relevant facts that occurred during the financial year;
    - e)- The foreseeable evolution of the company;

- f)- Statistical indicators.

Article 34 (Rendering of Accounts)

1. Annually, with reference to 31 December of each year, the following accounting documents must be prepared:
    - a)- Management report;
    - b)- Balance sheet and income statement;
    - c)- Cash flow statement;
    - d)- Opinion of the Supervisory Body.
2. The documents referred to in the previous number must be supplemented with other elements of interest for the assessment of the company's situation, namely:
    - a)- Annexes to the balance sheet and income statement;
    - b)- Summary maps showing the degree of implementation of the activity plan and the activity budget and the annual budget;
    - c)- Other significant indicators of the company's activities and situation.

3. The accounting documents must be assessed by the Supervisory Board by 31 March of the year following the year to which they relate.
4. The report and accounts must be submitted to the Ministerial Department responsible for the Public Business Sector, within 30 days after the closing date of the accounts.

Article 35 (Revenue)

The following constitute revenues of the Public Electricity Production Company:

- a)- The income resulting from its activity;
- b)- Income from own assets;
- c)- The proceeds from the issuance of securities or bonds, which must be authorized by the Minister responsible for the Public Business Sector, after consulting the Ministers responsible for the Activity and Finance Sector;
- d)- The proceeds of loans and other financial operations, which, when carried out, must not compromise their immediate liquidity, and must be preceded by the authorization of the competent authorities;
- e)- Allocations or subsidies granted by the State;
- f)- The proceeds from the sale of one's own assets or the creation of rights over them;
- g)- Donations, inheritances or legacies intended for him/her;
- h)- Any other income or amounts that, by law or contract, belong to you.

Article 36 (Allocation of Profits)

1. A provision must be made from the profits of the Public Electricity Production Company for the payment of taxes levied on them.
2. The remainder, plus any profits carried over from previous years, must be distributed as follows:
    - a)- Constitution of the legal reserve;
    - b)- Investment fund;
    - c)- Social fund;
    - d)- Delivery to the State of the part of the dividends that is due to him as owner of the company;
    - e)- Distribution of individual incentives to workers, including members of management bodies, as a form of profit sharing, in accordance with current legislation.
3. The Holder of Executive Power or whoever delegates it is responsible for approving the allocation of the portion of profits referred to in the previous number, as well as the creation of other reserves and funds deemed necessary for the company.

CHAPTER V PERSONNEL

Article 37 (Legal Framework)

1. The Public Electricity Production Company must establish employment contracts with its workers in accordance with current employment legislation and applicable collective labor agreements, taking into account the needs of the company and the promotion and constant development of national workers.
2. The company's staff, their rights and obligations, benefits and the prospect of technical and professional development, namely the conditions that guide admission, suspension, dismissal, salaries, bonuses and other remunerations, the required qualifications, among other matters of human resources policy, must be included in internal regulations to be approved by the Board of Directors.
3. The following may perform functions in the company, on a service commission: public servants and workers from other public companies or those with public domain, who maintain all the rights inherent to their original framework, considering the entire period of the commission as service provided in that framework.
4. The company's employees may also perform functions in the State and in other public entities or in the public domain, on a service commission, maintaining all the rights inherent to their professional status in the respective company.
5. Workers, including civil servants, appointed on a service commission may, at any time, opt for the salary and social benefits of their original framework or those corresponding to the functions they perform.
6. The salaries and social security contributions of workers on secondment, including civil servants, are the responsibility of the entities where they are effectively employed.

Article 38 (Salary Policy)

1. Without prejudice to the previous article, the Board of Directors is responsible for setting, in accordance with the legislation in force, the salaries of the employees of the Public Electricity Production Company.
2. The Board of Directors may create bonuses to be awarded to employees to encourage increased productivity within the company.

Article 39 (Vocational Training)

1. The Public Electricity Production Company must organize and develop professional training actions with the aim of raising the professional

qualifications of its workers and adapting them to new management techniques and methods, in order to raise the level of performance of the company's activity and facilitate internal promotion and functional mobility of workers.
2. The company must also promote training activities for trainee workers in the process of integrating into the company.
3. The company, in accordance with its own regulations, approved by the Board of Directors, may also promote the training of employees by granting scholarships within and outside the country.
4. To ensure training activities, the company must use its own resources, using or associating itself, if necessary, with qualified external entities.

Article 40 (Participation in Management)

1. Workers' participation in the management of the company is ensured by one or more advisory committees, as deemed most appropriate, with powers delegated by the Workers' Assemblies.
2. The company's employees are represented on the employees' advisory committees in the proportion of one representative for every 150/250 active employees.
3. The workers' consultative committees are responsible, in particular, for giving their opinion on:
    - a)- The company's plans and budget projects;
    - b)- Degree of execution of the respective plans and budgets;
    - c)- The level of productivity, discipline and attendance of workers;
    - d)- The working and social conditions of workers;
    - e)- Compliance with labor legislation and collective labor agreements;
    - f)- Labor disputes;

- g)- All other issues that the company's management bodies decide to submit for its consideration.

CHAPTER VI FINAL

Article 41 (Mandates)

Once the term of office has ended, the members of the company's bodies remain in office until their effective replacement or declaration of termination of duties.

Article 42 (Calls)

1. All members in office must be summoned to meetings of the Board of Directors and Supervisory Board.
2. All members who:
    - a)- Have attended any previous meeting in which the day and time of the meeting were set in their presence;
    - b)- Attend the meeting;
    - c)- Have received and signed the notice.
3. All members are also considered to be regularly summoned to ordinary meetings that take place on the day and time pre-established in the bodies' regulations.
4. The notice must be accompanied by the agenda and a copy of the minutes of the previous session.
5. Minutes will be drawn up of all meetings, which will include:
    - a)- The topics discussed;
    - b)- The summary of the discussions;
    - c)- The decisions taken;

- d)- The defeated votes, if any.

Article 43 (Liability to Third Parties)

1. The Public Electricity Production Company is represented in court and out of court by the Chairman of the Board of Directors, who is civilly and criminally liable to third parties for the company's acts and omissions, in accordance with current legislation.
2. Only its assets are responsible for the company's obligations.

Article 44 (Retention of Archives)

1. The Public Electricity Production Company must keep its main accounting and correspondence documents on file for a period of 10 years, and the remaining documents may be rendered useless with the authorization of the competent entities, 5 years after their preparation or entry.
2. Documents and books that must be kept in archives, as well as the correspondence referred to in the previous number, may be preserved using other appropriate registration processes accepted, in accordance with the legislation in force, and the records must be duly authenticated.
3. Without prejudice to the previous number, the originals shall be rendered useless with the express authorization of the Board of Directors, and the respective rendering useless report shall be drawn up.
4. Certified copies have the same evidentiary force as the originals, even if they result from the reproduction of the records that preserve them.

Article 45 (Internal Audit)

1. For the purposes of accounting and financial control and of the company's activities in general, there is an internal audit service, made up of specialized technicians, who exercise permanent control of the company's financial activities and records, in accordance with the legislation in force.
2. Internal audit must submit the following documents to the Chairman of the Board of Directors:
    - a)- Quarterly reports on the activity carried out;

- b)- Specific reports on any anomalies found.

Article 46 (External Audit)

1. The company's activities and accounts are subject to an annual external audit to be carried out by a specialized legal entity of recognized suitability and established in Angola.
2. The provisions of paragraph 1 do not exempt the Supervisory Board from issuing an opinion on the company's accounts.

Article 47 (Hiring of Companies and Experts)

The company may, by resolution of the Board of Directors, in order to achieve its purpose, hire companies or specialists of recognized technical suitability, in accordance with the legislation in force.

Article 48 (Right of Participation or Association)

The company may participate in associations or organizations of a technical, scientific and business nature at regional, national or international level of interest to the Electric Energy Sector.

Article 49 (Preservation of the Environment)

In carrying out its activities, the company complies with environmental requirements, in accordance with current legislation and the respective concessions or licenses.

Article 50 (Minimum Services)

In cases of strike, company workers are obliged to guarantee, in accordance with current legislation, minimum services of public interest.

Article 51 (Internal Regulations)

The bodies of the Public Electricity Production Company are governed by their own regulations approved by the Board of Directors, except in the case of special legislation.

Article 52 (Dispute Resolution)

1. The courts are responsible for judging disputes in which the company is a party, including actions to establish liability, as well as assessing the liability of the holders of these bodies towards the respective company.
2. The provisions of the previous paragraph do not prejudice the possibility of the Public Electricity Production Company (EP) using arbitration to resolve disputes. The President of the Republic, José Eduardo dos Santos. ANNEX III REFERRED TO IN ARTICLE 5

ORGANIC STATUTE OF THE NATIONAL ELECTRICITY

CHAPTER I GENERAL

Article 1 (Name)

The National Electricity Distribution Company, abbreviated as ENDE-EP, is a company of strategic interest, endowed with legal personality and administrative, financial, patrimonial and management autonomy.

Article 2 (Legal Framework)

The National Electricity Distribution Company is governed by this Statute, by complementary implementing rules, by the legislation applicable to public companies and, where not specifically regulated, by the rules of Commercial Law and other rules of private law in force.

Article 3 (Headquarters and Representations)

1. The National Electricity Distribution Company has its headquarters in Luanda and may, by resolution of the Board of Directors, establish and close branches, subsidiaries, agencies or other forms of representation in any part of the national territory or abroad, as well as decentralize its technical and administrative services, in accordance with the needs of its activity.
2. The establishment of branches, subsidiaries or other forms of representation of the company, in any part of the national territory or abroad, requires prior compliance with the applicable legal provisions.

Article 4 (Corporate Purpose)

1. The National Electricity Distribution Company's main purpose is to distribute electricity nationwide, within the scope of the Public Electricity System (SEP), through the operation of the infrastructures of the HV, MT and LV distribution networks, under a public service

regime, under the terms of the General Electricity Law and its Regulations.
2. Additionally, the company may carry out other industrial or commercial activities, either directly or in association with third parties, by decision of its Board of Directors, provided that they do not harm its corporate purpose.
3. The National Electricity Distribution Company may, in pursuit of its main purpose and by decision of the Board of Directors, propose the creation of new companies and the acquisition of all or part of the capital of companies already created or to be created.
4. The company may also, under the terms of the legislation in force, and by decision of the Board of Directors, establish with national or foreign entities the forms of association or cooperation that best enable the achievement of its corporate purpose.
5. The exercise of other activities, as well as the constitution of new companies or the establishment of associations, under the terms of paragraphs 2, 3 and 4 of this article, must be carried out with the prior authorization of the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector.

Article 5 (Statutory Capital)

1. The statutory capital of the National Electricity Distribution Company, realized by accounting segregation of ENE - National Electricity Distribution Company-EP and EDEL - Electricity Distribution Company-EP, is AKz: 22,322,259,413.31, equivalent to USD 229,202,487.02, with the remaining equity consisting of other equity funds in the amount of AKz: 261,872,338,554.12, equivalent to USD 2,688,876,164.68.
2. The statutory capital may be reinforced with State allocations, through the incorporation of reserves or other own funds, subject to prior authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector, on a proposal from the Board of Directors, accompanied by an opinion from the Supervisory Board, in accordance with the legislation in force.

CHAPTER II ORGANIZATION AND OPERATION

SECTION I BODIES IN GENERAL

Article 6 (Bodies)

The following bodies are part of the National Electricity Distribution Company:

- a)- The Board of Directors;
- b)- The Supervisory Board.

SECTION II OF SPECIAL

SUBSECTION I BOARD OF DIRECTORS

Article 7 (Nature and Composition)

1. The Board of Directors is the management body of the National Electricity Distribution Company that answers to the Government, without prejudice to the civil liability that its members incur towards the company or third parties and the criminal liability that they incur.
2. The Board of Directors is composed of seven members, five executives and two non-executives, one of whom is the chairman, whose designation must be included in the appointment document.
3. The members of the Board of Directors are appointed and dismissed by the Head of the Executive Branch.
4. The appointment of members of the Board of Directors must observe the criteria and requirements established in the Public Manager Statute.

Article 8 (Powers of the Board of Directors)

1. The Board of Directors is vested with powers to act on behalf of the company, and must exercise them within the limits of the law and these Articles of Association.
2. The Board of Directors is responsible for exercising all powers necessary to ensure the management and development of the company and the administration of its assets.
3. The Board of Directors is specifically responsible, without prejudice to the powers of the Supervisory Authority:
    - a)- Approve the company's objectives and management policies;
    - b)- Approve the annual and multi-annual activity and financial plans and the annual budgets, as well as make the necessary changes or updates;
    - c)- Represent the company in and out of court, actively or passively, as well as confess or compromise in any actions;
    - d)- Approve the annual reports and accounts and submit them for approval by the competent entities;
    - e)- Approve the operating regulations of the Board of Directors;
    - f)- Approve the company's technical-administrative organization and internal operating rules;

- g)- Approve the participation or association with other companies, as well as the exercise of new activities or the cessation of existing ones, in accordance with the legislation in force;
- h)- Approve the acquisition and disposal of assets and financial holdings, when these are not provided for in the approved annual budgets, and within the limits defined by law or the Statutes;
- i)- Approve the rules relating to personnel;
- j)- Submit for approval or authorization by the Minister responsible for the Public Business Sector and the Minister responsible for the Activity Sector, the acts and documents that, under the terms of the law or the Statute, must be so;
- k)- Manage and carry out acts relating to the company's purpose;
- l)- Participate with the competent entities in the approval of price or tariff proposals to be applied by the company;
- m)- Decide on taking out short, medium or long-term loans;
- n)- Appoint representatives with the powers it deems appropriate;

- o) Exercise other powers arising from the law.

Article 9 (Delegation of Powers)

1. The Board of Directors may, within the legal and statutory limits, delegate some of its powers to one or more of its members, through:
   - a)- Designation of managing directors;
   - b)- Appointment of those responsible;
   - c)- Power of attorney for specific acts.
2. The provisions of the previous paragraph do not prejudice the right to invoke delegated powers.

Article 10 (Chairman of the Board of Directors)

The Chairman of the Board of Directors is responsible for the following:

- a)- Represent the company in and out of court, actively and passively;
- b)- Coordinate the activity;
- c)- Ensure the correct application of the decisions;
- d)- Convene and preside over meetings;
- e)- Appoint, reappoint or dismiss company officials, upon proposal from the Board of Directors;
- f)- Ensure relations with the Government;
- g)- Exercise other powers arising from the law or delegated to it by the Board of Directors.

Article 11 (Portfolios)

1. The directors' responsibilities are those defined in the appointment act, which correspond to one or more areas of the company's activity, aiming at the necessary decentralization of powers in monitoring the company's activities.
2. The administrators, under the terms of the previous number, are specifically responsible for the following:
   - a)- Coordinate the activities of the respective areas and ensure the correct application of the Board of Directors' decisions;
   - b)- Monitor the company's activities and propose measures aimed at maximizing income and others that they deem appropriate;

- c)- Exercise other powers assigned to them by the Board of Directors.

Article 12 (Meetings and Deliberations of the Board of Directors)

1. The Board of Directors meets ordinarily once a month and extraordinarily whenever convened by its chairman, on his own initiative, at the request of the majority of its members or at the request of the Supervisory Board.
2. The Board of Directors' decisions must be taken in the presence of the majority of its members, in office, and by a simple majority of votes.
3. Members of the Board of Directors cannot vote on matters that have, on their own behalf or on behalf of third parties, interests that conflict with the company.
4. Other entities may be present at Board of Directors meetings, especially those invited for that purpose, but without the right to vote.
5. Members of the Supervisory Board may also attend meetings of the Board of Directors.
6. The members of the Board of Directors have a special duty not to disclose matters discussed by the Board or facts inherent to the company or companies in which they have a stake, of which they become aware in the exercise of their functions, and must also keep the documentation in a safe place, classified as confidential.
7. Minutes are drawn up for all meetings of the Board of Directors in specific books, which must be signed by all members who participated and must include:
   - a)- The topics discussed;
   - b)- The summary of decisions;
   - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 13 (Mandate)

The term of office of the members of the Board of Directors is five years, renewable one or more times, and they continue to exercise their functions until their effective replacement or declaration of termination of functions.

Article 14 (Method of Obligating the Company)

1. The company is bound, before third parties, by the acts of the Board of Directors, when carried out in its name, in compliance with its powers, under the terms of the respective regulations, or by any legally constituted representative thereof and within the powers established in these Bylaws.
2. The company is bound by the signatures of two members of the Board of Directors, one of whom is the Chairman, or two directors specially authorized by the Board of Directors, or a proxy, specially mandated for this purpose by the Board of Directors.
3. In matters of mere procedure, the signature of an administrator or person responsible for the company is sufficient.

Article 15 (Responsibility of Directors)

1. The company's directors are civilly liable to the company for losses caused by acts or omissions carried out in breach of legal or statutory duties, unless proven otherwise.
2. Directors who did not participate or voted against are not liable for any loss caused in the execution of a decision of the Board of Directors.
3. Directors are responsible for monitoring their peers with management powers and any other company officials and, consequently, for the losses caused by their acts or omissions, when, having knowledge of them or intending to commit them, they do not prompt immediate intervention by the Board of Directors to take the measures deemed appropriate to the circumstances.
4. The opinion of the Supervisory Board does not exempt the administrators from liability.
5. The provisions of the previous numbers do not exclude the criminal or disciplinary liability incurred by the company's managers, under the terms of the legislation in force.

Article 16 (Remuneration of Members of the Board of Directors)

1. The remuneration of the members of the Board of Directors is set by specific legislation, in accordance with the combined provisions of paragraph 3 of article 36 and paragraph d) of paragraph 3 of article 44 of the Basic Law of the Public Business Sector.
2. Without prejudice to the previous number, it is up to the Holder of the Executive Power, or to whom he delegates, under the terms of the law, to set the additional remunerations for the members of the Board of Directors, based on the company's results.

SUBSECTION II FISCAL

Article 17 (Nature and Composition)

1. The Supervisory Board is the body responsible for monitoring and controlling the activities of the National Electricity Distribution Company, and is made up of three members, appointed by Joint Order of the Minister responsible for the Public Business Sector and Finance.
2. One of the members of the Supervisory Board, whose name is stated in the appointment act, is the chairman, with the other two being members.
3. The Chairman of the Supervisory Board is proposed by the Minister of Finance and the members are proposed, one by the Minister responsible for the Public Business Sector and the other by the Minister responsible for the Activity Sector.
4. The bonuses due to members of the Supervisory Board are set by specific legislation, in accordance with the law.

Article 18 (Powers of the Supervisory Board)

1. The Supervisory Board is responsible for the following:
    - a)- Monitor the management and compliance with the rules regulating the company's activity;
    - b)- Issue an opinion on the company's budget and financial operations;
    - c)- Certify the assets belonging to the company or held by it, as a guarantee, deposit or for any other purpose;
    - d)- Issue, on a legally established date, opinions on the company's accounting documents, namely the annual report and accounts;
    - e)- Pronounce on any matters submitted to it by the company's management bodies;
    - f)- Check the valuation criteria used by the company, which may lead to the correct assessment of assets and results;
    - g)- Carry out regular verification of existing funds and asset values and monitor the company's accounting records;
    - h)- Prepare annual reports on its monitoring activities and submit them for

approval by the Ministers of Energy, Finance and Economy;
    - i)- Report any irregularity of which you are aware to the competent bodies;
    - j)- Request the convening of an extraordinary meeting of the Board of Directors, whenever deemed appropriate;
    - k)- Provide an opinion on any other matters of interest to the company.
2. The Supervisory Board's opinions must be issued within 30 days from the date of receipt of the supporting documents.
3. Whenever it deems it necessary, for the correct performance of its duties, the Supervisory Board may be assisted by external auditors hired by the company.

Article 19 (Meetings and Deliberations of the Supervisory Board)

1. The Fiscal Council meets ordinarily once per quarter and extraordinarily whenever convened by its president, on his own initiative or at the reasoned request of any of the members.
2. The Supervisory Board may, upon request from its chairman, meet with the Board of Directors whenever it deems it necessary or at the invitation of the chairman of this body.
3. The Supervisory Board may only validly deliberate in the presence of a simple majority of its members in office.
4. Decisions are taken by a majority vote of the members present, with the chairman or his/her substitute having a casting vote in the event of a tie in the vote.
5. Members of the Supervisory Board cannot vote on matters in which they have, on their own behalf or on behalf of third parties, interests in conflict with the company.
6. Minutes are drawn up for all meetings in specific books, which must be signed by all members who participated in them, and must include:
    - a)- The topics discussed;
    - b)- The summary of the discussions;
    - c)- The decisions taken;

- d)- The dissenting votes, if any.

Article 20 (Incompatibilities)

1. The following cannot be appointed as members of the company's Supervisory Board:
    - a)- Those who perform functions in the management of the company or have performed them in the previous two years;
    - b)- Those who provide permanent paid services to the company;
    - c)- Those who perform management functions in competing or associated companies or societies;
    - d)- Those who are prohibited, incapacitated, insolvent, bankrupt or prohibited from exercising public functions;
    - e)- Spouses, relatives and in-laws in the direct line of persons prevented, under the terms of subparagraphs a), b) and c).
2. The occurrence of any of the facts indicated in the paragraphs of the previous number implies the expiry of the appointment.
3. The appointment of any member of the company's Supervisory Board to perform management functions within the company also implies the expiry of his/her previous appointment as a member of the Supervisory Board.

Article 21 (Powers)

In order to strictly perform their duties, the members of the Supervisory Board may, jointly or separately:

- a)- Obtain from the competent services the presentation, for examination and verification, of the company's books, records and other documents, as well as verify the existence of any valuables, namely money, securities, goods and other assets;
- b)- Obtain information or clarification from the management bodies or any of their members about the company's activity and operation or any of its businesses;
- c)- Request from third parties, who have carried out transactions with or on behalf of the company, the information they need to clarify these transactions;
- d)- Attend, whenever they deem appropriate, the meetings of the Board of Directors.

Article 22 (Duties)

1. The general duties of the members of the Supervisory Board are:
    - a)- Exercise conscientious and impartial supervision;
    - b)- Keep secret the facts of which they become aware by virtue of their functions or because of them, without prejudice to the obligation to report to the authorities any unlawful acts of which they become aware;
    - c)- Inform the Board of Directors of all checks, inspections and due diligence carried out and their respective results;
    - d)- Inform the competent entities of any irregularities and inaccuracies found and of any clarifications obtained;

    - e)- Participate in meetings of the Supervisory Board and attend joint meetings to which they are called or in which the financial year accounts are assessed.
2. Members of the Supervisory Board are prohibited from disclosing any commercial or industrial secrets of the company that they have become aware of in the performance of their duties.

Article 23 (Mandate)

1. The term of office of the members of the Supervisory Board is five years, renewable once or twice.
2. The mandate of the members of the Supervisory Board may be suspended or revoked, for duly substantiated reasons, by Joint Order of the Minister responsible for the Public Business Sector and Finance.

CHAPTER III GOVERNMENT

Article 24 (Intervention)

Government intervention in the National Electricity Distribution Company is exercised by the competent bodies, in accordance with the law.

Article 25 (Superintendence)

The superintendence of the National Electricity Distribution Company is exercised by the Holder of Executive Power, or by the Minister with delegated powers for this purpose, and is particularly responsible, under the terms of the legislation in force:

- a)- Establish the strategic objectives for the company's activity and the general framework within which it should develop, in order to ensure its harmonization with the Government's global and sectoral policies and with the national macroeconomic plan;
- b)- Regulate the exercise of the activity of the branch to which the company must be subordinate and monitor its compliance;
- c)- Analyze the technical, economic and financial information on the company's activity, regularly provided by it, and take appropriate measures, in accordance with the law;
- d)- Exercise other powers arising from the law.

Article 26 (State Local Administration Bodies)

The exercise of the Local State Administration body, where the National Electricity Distribution Company is the concessionaire or licensee, consists of making the company's plans and programs compatible with the development plans of the respective area of jurisdiction.

CHAPTER IV ASSET AND FINANCIAL

SECTION I ASSET MANAGEMENT

Article 27 (Company Assets)

1. The assets of the National Electricity Distribution Company are made up of all the assets, rights and obligations received, acquired or contracted for or in the exercise of its activity.
2. The company freely manages and disposes of its assets, in accordance with current legislation.
3. The company must keep up to date the records of the assets that make up its assets, including assets subject to the concession or license regime, which are assigned to its activity, and must also carry out the respective revaluation in accordance with the legislation in force.

Article 28 (Insurance)

The National Electricity Distribution Company must enter into and keep up to date insurance contracts for the assets that form part of its assets and other assets related to its activity and that are subject to compulsory insurance, in accordance with the legislation in force.

SECTION II FINANCIAL

Article 29 (Management Principles)

1. The management of the National Electricity Distribution Company must be conducted in such a way as to reconcile the State's economic and social policy with the technical, economic and financial viability of the company.
2. When guiding the company's management, the principles set out in the law and the following objectives must be observed:
    - a)- Objectives and indicators established by the State;
    - b)- Economic and financial self-sufficiency, except when the State imposes the practice of fixed prices or social objectives that are not economically profitable for the company;
    - c)- Investments to be made by the company must be subject to business decision criteria, namely in terms of rate of return, recovery period of the invested capital and degree of risk, except in the case of public investments supported by the State, in which case they will be subject to the regime defined by law or

that which has been established by the State;
    - d)- The financial resources to be mobilized by the company must be appropriate to the nature of the assets to be financed;
    - e)- The company's financial structure must be compatible with its operating profitability and the level of risk of the activity;

- f)- The company's production process must be constantly improved, ensuring the systematic improvement of the quality of the services provided and its productivity.

Article 30 (Management Instruments)

The economic and financial management of the National Electricity Distribution Company is guaranteed through the following management instruments:

- a)- Multi-annual plans and budgets;
- b)- Annual plans and budgets;
- c)- Activity reports and accounts for the last financial year, adapted to the characteristics of the company and its monitoring needs;
- d)- Framework contract to be signed between the company and the State, in accordance with current legislation.

Article 31 (Multiannual Plans and Budgets)

1. Multi-annual plans establish the development strategy to be followed by the company, with a horizon of at least three years, and must contain, in particular, the following:
    - a)- Study of the environment in which the company operates, highlighting threats and opportunities;
    - b)- Study of the company, highlighting its strengths and weaknesses;
    - c)- Survey of the main constraints on the company's activity, both legal and market-related;
    - d)- The company's competitive advantages, with regard to services provided under a competitive regime;
    - e)- Positioning of the company in the market;
    - f)- The overall strategic orientation for the company;
    - g)- Business plan outlined for the period, including feasibility studies and sensitivity analyses;
    - h)- Measures to enhance the company's potential for the planned business plan;
    - i)- Contingency plans;
    - j)- Assessment of the extent to which the company can meet the objectives and goals set by the State;
    - k)- Guidance on technological development;
    - l)- Employment policy;
    - m)- Specific programs to improve service quality and productivity;
    - n)- Specific human resources development programs.
2. Multiannual budgets must include, without prejudice to other elements arising from the specific nature of the activity and management requirements, the following:
    - a)- The investment program and respective sources of financing;
    - b)- The forecast operating account and the forecast foreign exchange balance;
    - c)- The projection of internal and external debt.
3. Multi-annual plans and budgets should be reviewed whenever circumstances warrant.

Article 32 (Annual Plans and Budgets)

1. The National Electricity Distribution Company must prepare, for each financial year, in due time in advance and in accordance with current legislation, its activity plan and budget, which are organised in compliance with the directives governing the presentation of plans and budgets and must contain the necessary details to facilitate the decentralisation of responsibilities and allow for adequate management control.
2. The draft annual plans and budgets referred to in the previous number are drawn up in accordance with the macroeconomic assumptions and other global and sectoral guidelines formulated by the Executive and must be submitted to the Supervisory Board before being approved.
3. The Board of Directors must promote the necessary changes to the plan and budget whenever compelling circumstances require them.

Article 33 (Accounts and Activity Reports)

1. The annual financial report must contain a clear and faithful explanation of the evolution of the company's activities and situation in the last financial year.
2. The report and accounts and activities must include, among other elements that may be requested, namely the following:
    - a)- The evolution of management in the different business sectors in which the company operates;
    - b)- Assessment of the operating account, c) Implementation of the investment program;

- d)- Relevant facts that occurred during the financial year;
- e)- The foreseeable evolution of the company;

- f)- Statistical indicators.

Article 34 (Rendering of Accounts)

1. Annually, with reference to 31 December of each year, the following accounting documents must be prepared:
   - a)- Management report;
   - b)- Balance sheet and income statement;
   - c)- Cash flow statement;
   - d)- Opinion of the Supervisory Body.
2. The documents referred to in the previous number must be supplemented with other elements of interest for the assessment of the company's situation, namely:
   - a)- Annexes to the balance sheet and income statement;
   - b)- Summary maps showing the degree of implementation of the activity plan and the activity budget and the annual budget;
   - c)- Other significant indicators of the company's activities and situation.
3. The accounting documents must be assessed by the Supervisory Board by 31 March of the year following the year to which they relate.
4. The report and accounts must be submitted to the Ministerial Department responsible for the Public Business Sector, within 30 days after the closing date of the accounts.

Article 35 (Revenue)

The following constitute revenues of the National Electricity Distribution Company:

- a)- The income resulting from its activity;
- b)- Income from own assets;
- c)- The proceeds from the issuance of securities or bonds, which must be authorized by the Minister responsible for the Public Business Sector, after consulting the Ministers responsible for the Activity and Finance Sector;
- d)- The proceeds of loans and other financial operations, which, when carried out, must not compromise their immediate liquidity, and must be preceded by the authorization of the competent authorities;
- e)- Allocations or subsidies granted by the State;
- f)- The proceeds from the sale of one's own assets or the creation of rights over them;
- g)- Donations, inheritances or legacies intended for him/her;
- h)- Any other income or amounts that, by law or contract, belong to you.

Article 36 (Allocation of Profits)

1. A provision must be made from the profits of the National Electricity Distribution Company for the payment of taxes levied on them.
2. The remainder, plus any profits carried over from previous years, must be distributed as follows:
   - a)- Constitution of the legal reserve;
   - b)- Investment fund;
   - c)- Social fund;
   - d)- Delivery to the State of the part of the dividends that is due to him as owner of the company;
   - e)- Distribution of individual incentives to workers, including members of management bodies, as a form of profit sharing, in accordance with current legislation.
3. The Head of Executive Power or whoever delegates it to approve the allocation of the portion of profits referred to in the previous number is also responsible for creating other reserves and funds deemed necessary for the company.

CHAPTER V PERSONNEL

Article 37 (Legal Framework)

1. The National Electricity Distribution Company must establish employment contracts with its employees in accordance with current employment legislation and applicable collective labor agreements, taking into account the needs of the company and the promotion and constant development of national employees.
2. The company's staff, their rights and obligations, benefits and the prospect of technical and professional development, namely the conditions that guide admission, suspension, dismissal, salaries, bonuses and other remunerations, the required qualifications, among other matters of human resources policy, must be included in internal regulations to be approved by the Board of Directors.
3. Public servants and workers from other public companies or those with public domain may perform functions in the company, on a secondment basis, and they maintain all the rights inherent to their original framework, with the entire period of the secondment being considered as service provided within that framework.
4. The company's employees may also perform functions in the State and in other public entities or in the public domain, on a service commission,

maintaining all the rights inherent to their professional status in the respective company.
5. Workers, including civil servants, appointed on a service commission may, at any time, opt for the salary and social benefits of their original framework or those corresponding to the functions they perform.
6. The salaries and social security contributions of workers on secondment, including civil servants, are the responsibility of the entities where they are effectively employed.

Article 38 (Salary Policy)

1. Without prejudice to the previous article, the Board of Directors is responsible for setting, in accordance with the legislation in force, the salaries of employees of the National Electricity Distribution Company.
2. The Board of Directors may create bonuses to be awarded to employees to encourage increased productivity within the company.

Article 39 (Vocational Training)

1. The National Electricity Distribution Company must organize and develop professional training actions with the aim of raising the professional qualifications of its workers and adapting them to new management techniques and methods, in order to raise the level of performance of the company's activity and facilitate internal promotion and functional mobility of workers.
2. The company must also promote training activities for trainee workers in the process of integrating into the company.
3. The company, in accordance with its own regulations, approved by the Board of Directors, may also promote the training of employees by granting scholarships within and outside the country.
4. To ensure training activities, the company must use its own resources, using or associating itself, if necessary, with qualified external entities.

Article 40 (Participation in Management)

1. Workers' participation in the management of the company is ensured by one or more advisory committees, as deemed most appropriate, with powers delegated by the Workers' Assemblies.
2. The company's employees are represented on the employees' advisory committees in the proportion of one representative for every 150/250 active employees.
3. The workers' consultative committees are responsible, in particular, for giving their opinion on:
    - a)- The company's plans and budget projects;
    - b)- Degree of execution of the respective plans and budgets;
    - c)- The level of productivity, discipline and attendance of workers;
    - d)- The working and social conditions of workers;
    - e)- Compliance with labor legislation and collective labor agreements;
    - f)- Labor disputes;

- g)- All other issues that the company's management bodies decide to submit for its consideration.

CHAPTER VI FINAL

Article 41 (Mandates)

Once the term of office has ended, the members of the company's bodies remain in office until their effective replacement or declaration of termination of duties.

Article 42 (Calls)

1. All members in office must be summoned to meetings of the Board of Directors and Supervisory Board.
2. All members who:
    - a)- Have attended any previous meeting in which the day and time of the meeting were set in their presence;
    - b)- Attend the meeting;
    - c)- Have received and signed the notice.
3. All members are also considered to be regularly summoned to ordinary meetings that take place on the day and time pre-established in the bodies' regulations.
4. The notice must be accompanied by the agenda and a copy of the minutes of the previous session.
5. Minutes will be drawn up of all meetings, which will include:
    - a)- The topics discussed;
    - b)- The summary of the discussions;
    - c)- The decisions taken;

- d)- The defeated votes, if any.

Article 43 (Liability to Third Parties)

1. The National Electricity Distribution Company is represented in court and out of court by the Chairman of the Board of Directors, who is civilly and criminally liable to third parties for the company's acts and omissions, in accordance with current legislation.

2. Only its assets are responsible for the company's obligations.

Article 44 (Retention of Archives)

1. The National Electricity Distribution Company must keep its main accounting and correspondence documents on file for a period of 10 years, and the remaining documents may be rendered useless with the authorization of the competent entities, 5 years after their preparation or entry.
2. Documents and books that must be kept in archives, as well as the correspondence referred to in the previous number, may be preserved using other appropriate registration processes accepted, in accordance with the legislation in force, and the records must be duly authenticated.
3. Without prejudice to the previous number, the originals shall be rendered useless with the express authorization of the Board of Directors, and the respective rendering useless report shall be drawn up.
4. Certified copies have the same evidentiary force as the originals, even if they result from the reproduction of the records that preserve them.

Article 45 (Internal Audit)

1. For the purposes of accounting and financial control and of the company's activities in general, there is an internal audit service, made up of specialized technicians, who exercise permanent control of the company's financial activities and records, in accordance with the legislation in force.
2. Internal audit must submit the following documents to the Chairman of the Board of Directors:
    - a)- Quarterly reports on the activity carried out;

- b)- Specific reports on any anomalies found.

Article 46 (External Audit)

1. The company's activities and accounts are subject to an annual external audit to be carried out by a specialized legal entity of recognized suitability and established in Angola.
2. The provisions of paragraph 1 do not exempt the Supervisory Board from issuing an opinion on the company's accounts.

Article 47 (Hiring of Companies and Experts)

The company may, by resolution of the Board of Directors, in order to achieve its purpose, hire companies or specialists of recognized technical suitability, in accordance with the legislation in force.

Article 48 (Right of Participation or Association)

The company may participate in associations or organizations of a technical, scientific and business nature at regional, national or international level of interest to the Electric Energy Sector;

Article 49 (Preservation of the Environment)

In carrying out its activities, the company complies with environmental requirements, in accordance with current legislation and the respective concessions or licenses.

Article 50 (Minimum Services)

In cases of strike, company workers are obliged to guarantee, in accordance with current legislation, minimum services of public interest.

Article 51 (Internal Regulations)

The bodies of the National Electricity Distribution Company are governed by their own regulations approved by the Board of Directors, except in the case of special legislation.

Article 52 (Dispute Resolution)

1. The courts are responsible for judging disputes in which the company is a party, including actions to establish liability, as well as assessing the liability of the holders of these bodies towards the respective company.
2. The provisions of the previous paragraph do not prejudice the possibility of the National Electricity Distribution Company (EP) using arbitration to resolve disputes. The President of the Republic, José Eduardo dos Santos.

Appendix E - Project proponent/Contractor's Quality and Environmental Policy

SUSTAINABILITY POLICY

1. POLICY PRINCIPLES

PAK YATIRIM is dedicated to achieving long-term sustainable outcomes within our construction projects and the communities where we operate, leveraging our owned assets and managed services. The PAK YATIRIM sustainability framework encompasses environmental, social, and economic considerations to:

- Enhance value and mitigate risk by understanding the challenges associated with climate change.
- Provide exceptional project experiences for clients and stakeholders throughout the entire construction supply chain.
- Progress towards global sustainability best practices.
- Cultivate sustainability knowledge among our stakeholders, including employees and partners, enabling them to be advocates.
- Foster a culture that genuinely embraces sustainability as a core value.

Our sustainability approach is guided by the following principles:

- Integrating sustainability considerations into our decision-making processes.
- Implementing sustainable practices, innovating where feasible, and sharing best practices across the supply chain and with customers.
- Acting responsibly as stewards for the natural environment by addressing environmental impacts while enhancing operational efficiency and values.
- Recognizing the social impact and considering the welfare of local communities where our construction projects are executed.

At PAK YATIRIM, we firmly believe that bolstering climate change resilience and minimizing the risk of regulatory non-compliance will fortify our long-term value in the market.

2. SUSTAINABILITY FOCUS AREAS

Sustainability Focus Areas are defined within the scope of our sustainability approach and in line with the above-mentioned principles in order to concentrate our effort as a steward for the natural environment and community.

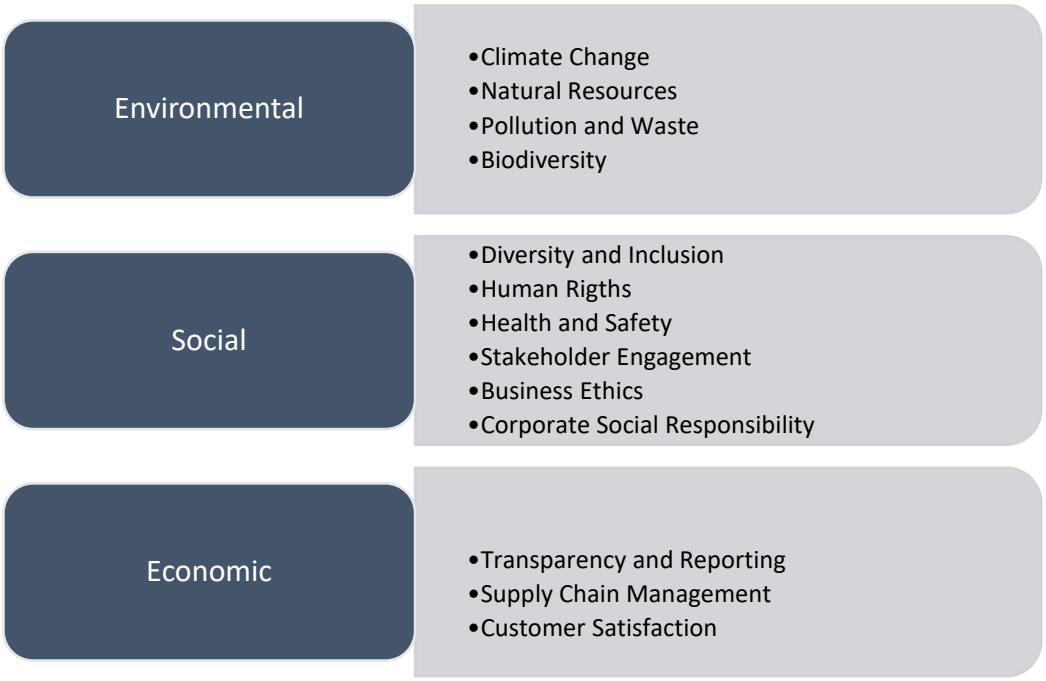


Figure 2-1 Sustainability Focus Areas

2.1. Environmental:

Climate Change

We acknowledge that climate change is a systemic issue with far-reaching impacts across sectors and geographies. Our objective is to collaborate with stakeholders, including downstream and upstream suppliers across various sectors, to facilitate the reduction of carbon emissions. We recognize the importance of energy transition as a significant investment theme. Over time, we plan to evaluate both physical and transition risks associated with climate change for our clients and supply chain. We aim to develop resilience responses to these risks, where applicable, as an integral part of our investment process.

Natural Resources:

We understand the significance of adopting prudent and environmentally friendly practices when utilizing natural resources. Our goal is to manage natural resources carefully and seek a balanced approach in collaboration with subcontractors and stakeholders. This will be achieved through the efficient use of natural resources, the

promotion of environmentally friendly practices, and the establishment of a management team with proper training.

Pollution and Waste:

We are committed to responsibly managing waste and pollution, utilizing up-to-date techniques. We will closely monitor all potential waste and pollution arising from our operations, activities, and customer relations. Our approach is to adopt environmentally friendly practices, and we will make informed choices in this direction.

Biodiversity:

Recognizing the critical importance of biodiversity as a foundational element for a healthy and resilient planet, we are dedicated to collaborating with stakeholders to actively promote and support biodiversity conservation efforts. Understanding that biodiversity loss poses significant risks to ecosystems and communities globally, our commitment is to assess the risks associated with biodiversity loss. We will integrate measures to enhance biodiversity resilience, where applicable, into our construction and investment strategies as part of our ongoing commitment.

2.2. Social:

Diversity and Inclusion:

We place a strong emphasis on fostering diversity within PAK YATIRIM. Recognizing the need for a proactive approach to diversity, we intend to refine our recruitment and development processes accordingly.

Human Rights

We acknowledge that our interactions with individuals through our operations and various business relationships have a profound impact on people. Our stance on human rights is deeply rooted in our values, and we are committed to upholding human rights based on our principle of enhancing life for all. We actively work against discrimination based on race, nationality, gender, age, religion, disability, and marital status, ensuring our employees are engaged in roles that respect human dignity. We condemn any behavior that violates human rights and strive to prevent any forms of physical, verbal, and visual communication that may offend individuals. Additionally, we stand against child and forced labor, aligning with the United Nations Universal Declaration of Human Rights and the United Nations Convention on the Rights of the Child.

Health and Safety

The health, safety, and well-being of our employees are paramount. We recognize the importance of safeguarding the health and safety of our employees, business partners, subcontractors, customers, and the public. Our goal is to integrate safety into our daily work routine, foster an injury and accident-free culture, and ensure a safe working environment.

Stakeholder Engagement

We understand the necessity of establishing a mutual trust environment among stakeholders to cultivate long-term, stable, and enduring relationships. We support pursuing the legitimate interests of stakeholders, developing a sustainable value creation strategy, and promoting professional and ethical growth. We recognize the need for reasonable communication with stakeholders to protect corporate reputations.

Business Ethics

We strive to be a symbol of reliability and prestige in the sector by acting fairly, respectfully, and proactively. Emphasizing honesty and integrity in internal and external relations, we encourage reporting of any behavior contrary to business ethics. We have zero tolerance for corruption, fraud, embezzlement, or bribery. We carefully safeguard internal confidential information, trade secrets, intellectual property rights, and personal information of employees and stakeholders. We commit to establishing business relations only with individuals and institutions that comply with rules on these issues and promptly terminating relationships with those who do not.

Corporate Social Responsibility

We are deeply committed to Corporate Social Responsibility (CSR) as a guiding principle in all aspects of our operations. Recognizing our interconnectedness with society, we aim to make positive contributions to the communities in which we operate. Actively seeking opportunities to engage in projects that enhance education, healthcare, and overall quality of life for communities, we believe that by integrating CSR into our business strategy, we can create shared value for our stakeholders, promote sustainable development, and contribute to a better and more equitable world.

2.3. Economic:

Transparency and Reporting

We regard the transparent disclosure of our environmental, social, and economic impacts and initiatives as a crucial aspect of our business practices. Recognizing the significance of reporting and transparency, we understand that a robust environmental, social, and economic performance leads to advantages such as increased returns, reduced risks, and

resilience in the face of the climate crisis. We endorse the development of approaches grounded in the principle of transparency and strive to communicate notifications through our reports to employees, stakeholders, suppliers, contractors, and society at large.

Supply Chain Management

We hold our suppliers to high standards concerning environmental protection, employee rights, and benefits, as well as risk management. We require suppliers to establish and adopt environmental protection policies, assess the environmental impact of their business operations, products, and services, and implement measures to mitigate adverse environmental effects. Emphasizing the commitment of suppliers to eradicate child labor and forced labor, refrain from discrimination against employees, provide jobs that uphold human dignity, and take necessary precautions for the health and safety of their workforce is paramount.

Our expectations from suppliers include proactive risk management in both environmental and workforce aspects, along with transparent communication about significant events. We are committed to transparency on these matters and will maintain open communication within our supply chain network.

Customer Satisfaction

We are committed to surpassing customer expectations by delivering top-notch products and services that not only meet their needs but also minimize any adverse impact on the environment. Our customer-centric approach extends beyond mere transactions, encompassing the entire lifecycle of our products and services. Actively seeking feedback from our customers, we utilize it to drive continuous improvement in our offerings. Transparency and open communication are of utmost importance, and we are devoted to providing accurate and accessible information about our products, services, and sustainability initiatives.

Through an unwavering focus on customer satisfaction, our goal is to cultivate enduring relationships, foster brand loyalty, and contribute to the overall well-being of our customers. As part of our commitment to excellence, we consistently assess and enhance our customer satisfaction strategies to ensure alignment with evolving customer expectations and global sustainability standards.

3. ROLES AND RESPONSIBILITIES

PAK YATIRIM's Chairman have ultimate responsibility for overseeing the PAK YATIRIM's Sustainability Policy.

PAK YATIRIM is planning to establish a Sustainability Committee, which will consist of professionals from across the firm's business units and corporate groups, advises on Sustainability matters across PAK YATIRIM.

All PAK YATIRIM operational departments are responsible for implementing the requirements in line with this Policy for which the activities under their scope of work.

4. MONITORING AND REPORTING

To ensure that we continuously challenge ourselves in our pursuit of contributing to a sustainable and future-proof world, as outlined in this Sustainability policy, we will conduct an annual review. During this review, we will make every effort to seamlessly integrate sustainability into all aspects of our business, aligning with the principles articulated in this Sustainability policy. In the event of a material breach of the adopted Sustainability policy, necessary and reasonable actions will be taken to rectify any such violation.

The Sustainability policy will undergo an annual review by the Board of Directors to ensure its ongoing relevance and effectiveness in guiding our sustainable practices.

POLÍTICA AMBIENTAL

A RNT-EP, REDE NACIONAL DE TRANSPORTE DE ELECTRICIDADE EMPRESA PÚBLICA, *reconhece a importância da integração das questões ambientais na gestão do negócio, e considerando as condições particulares em que desenvolve as actividades de transporte de electricidade, compromete-se com a preservação do ambiente e com os princípios gerais da sustentabilidade Ambiental e Social.*

Em conformidade, a RNT-EP, reflectindo-se nos requisitos da norma ISO 14001 reafirma as suas responsabilidades ambientais e renova o compromisso da melhoria contínua, assente aos seguintes princípios:

a) Reconhecer que as actividades, os produtos e os serviços da empresa interagem com o meio ambiente;

b) Desenvolver acções para identificar quais dos aspectos têm ou podem ter impactos negativos sobre o meio ambiente, compilar e manter uma lista actualizada para o controlo dos mesmos;

c) Cumprimento das obrigações de conformidade, decorrentes da legislação e regulamentação, requisitos das partes interessadas relevantes, contratos e outros requisitos que a Organização subscreva;

d) Melhoria contínua dos processos de forma a proteger o ambiente através da prevenção da poluição, utilização racional dos recursos naturais, redução dos consumos, reciclagem e reutilização dos desperdícios gerados;

e) Avaliação dos aspectos e impactos ambientais e sociais decorrentes das actividades, serviços, bem como de processos novos ou modificados, estabelecendo os objectivos associados aos aspectos ambientais e socias significativos;

f) Redução do impacto ambiental, aplicando os melhores métodos e tecnologias disponíveis nas etapas de construção, exploração, descomissionamento de subestações, linhas de transporte e outras instalações, levando em consideração uma abordagem de análise do ciclo de vida e o conceito de economia circular;

g) Desenvolver formações bem como acções de consciencialização ambiental aos trabalhadores, de forma a motivar a participação generalizada, no cumprimento dos objectivos ambientais estabelecidos;

h) Utilização de processos, produtos e serviços menos agressivos para o ambiente e para a saúde das Pessoas promovendo as melhores práticas ambientais junto de fornecedores, clientes e outras partes interessadas;

i) Realizar o descarte de materiais ferrosos, produtos gasosos e óleos, obedecendo procedimentos e métodos que cumprem parâmetros ambientais de não-agressão ou danificação do ambiente;

j) Divulgar a Política Ambiental adoptada, mantendo-a permanentemente visível para todos os trabalhadores e público em geral.

A Administração garante a disponibilização dos recursos necessários à implementação da Política do Ambiente estabelecida e acompanha a sua divulgação e execução tendo como objectivo a melhoria contínua, pensamento baseado no risco essencial para se obter a eficácia do Sistema de Gestão Ambiental (SGA).
Estabelecemos objectivos ambientais para alcançar essa Política Ambiental, devendo a Política e Objectivos serem revistos pelo menos de 2 em 2 anos.

Data: 16 de Novembro de 2022

Assinatura:

Rui Pereira do Amaral Gourgel
Presidente do Conselho de Administração

RNT

ENVIRONMENTAL POLICY

RNT-EP, NATIONAL ELECTRICITY TRANSMISSION NETWORK COMPANY recognizes that the integration of environmental issues in the management of the business and considering the conditions and the activities of efficient transport, it is committed to the preservation of the environment and to the general interests of environmental and social support.

Accordingly, RNT-FP reflecting on the requirements of the ISO 14001 standard, it reaffirms environmental responsibilities and renews the commitment to continuous improvement, based on the following principles:

a) Recognize that the company's activities, products and services interact with the environment;
b) To develop actions to identify which aspects have or may have negative effects on the environment, to compile and maintain an up-to-date list for monitoring them;
c) Compliance with compliance obligations arising from legislation and re-enquiry, relevant stakeholder requirements, contracts and other requirements for which the Organization subscribes to;
d) Continuous improvement of processes in order to protect the environment by providing for the rational use of natural resources, reduction of consumption, recycling and reuse of the waste generated;
e) Evaluation of the environmental and social aspects and impacts arising from the activities, services as well as new or modified processes and setting out the objectives associated with the environmental and social aspects;
f) Reduction of environmental impact by applying the best methods and technology available in the construction stages. Decommissioning of substations, transport lines and other relevant installations taking into account a life-cycle analysis approach and the concept of circular economy;
g) Develop training as well as environmental awareness actions for workers in order to motivate widespread participation in the fulfilment of environmental objectives;
h) Use of processes, products and services that are less aggressive to the environment and to people's health, promoting the best environmental practices with suppliers, customers and other stakeholders;
i) To dispose of ferrous materials, gaseous products, and oils, in accordance with procedures and methods that comply with environmental parameters of non-aggression or damage to the environment; and
j) To disseminate the adopted Environmental Policy, keeping it permanently visible to all workers and the public in general.

The Administration guarantees the availability; the resources necessary to implement the Environmental Management System is expected to be used to ensure that the Environmental Management System is effectively implemented. We have set environmental objectives to achieve this Environmental Policy every 2 years.

Date: 16 November 2022

Signed: Rui Peira do Amaral Gourgel

Appendix F – Justification of the non-existance of the contract with the Waste Management Company

PAK YATIRIM

13.09.2024

Exmo (a). Senhor (a),

Nós, Pak Yatirim, o empreiteiro do Projecto da Linha de Transmissão de Cassinga em Angola, estamos a preparar e finalizar a documentação necessária da Avaliação de Impacte Ambiental e Social (AIAS) para submissão de acordo com as leis e regulamentos de Angola, antes do início das actividades do projecto.

Destacamos que o Dono do Projecto da Linha de Transmissão de Cassinga é a Rede Nacional de Transporte (RNT), vinculada ao Ministério de Energia e Águas (MINEA), pois o projecto é uma iniciativa liderada pelo governo angolano. Assim, o projecto será oficialmente registado no portal da Agência em nome da RNT.

Relativamente à exigência de apresentação de um Plano de Gestão de Resíduos no âmbito da AIAS, gostaríamos de informar que, embora ainda não tenhamos finalizado um contrato com uma empresa de gestão de resíduos certificada, estamos empenhados em fazê-lo antes de o projecto avançar. Neste momento, estão em curso discussões com potenciais prestadores de serviços de gestão de resíduos e iremos assegurar que seja estabelecido um contrato juridicamente vinculativo em conformidade com os regulamentos ambientais de Angola antes do início das atividades de construção do projecto.

Uma vez que o Plano de Gestão de Resíduos é parte integrante da submissão da AIAS, submetemos respeitosamente esta carta como um compromisso formal de envolvimento com uma empresa de gestão de resíduos qualificada e certificada. O contrato finalizado será apresentado ao Ministério do Ambiente assim que estiver disponível.

Entretanto, tomámos todas as medidas necessárias para cumprir o quadro regulamentar de Angola e garantiremos que todos os resíduos gerados durante o projecto são geridos de forma responsável e em total conformidade com a lei.

Sem mais, agradecemos a sua compreensão e cooperação nesta matéria e subscrevemo-nos com elevada estima e consideração.

Melhores Cumprimentos

Muhammed Esat OLPAK

Burhaniye Mahallesi Kanuni Sultan Süleymen Sokak Mabeyin Konakları Sit. No:4/E 34676 Üsküdar-İstanbul
T : +90 216 311 00 51 – F. +90 216 311 00 54
PAK YATIRIM İNŞAAT SANAYİ ve TİCARET A. Ş

PAK YATIRIM

13.09.2024

Dear Sir/Madam,

We, Pak Yatirim, the contractor for the Cassinga Transmission Line Project in Angola, are in the process of preparing and finalizing the required Environmental and Social Impact Assessment (ESIA) documentation for submission in accordance with local laws and regulations, prior to the commencement of project activities.

We would like to highlight that the proponent of the Cassinga Transmission Line Project is Rede Nacional de Transporte (RNT) under the Ministry of Energy and Water (MINEA), as the project is a government-led initiative. The project will be officially registered on the Agency's portal under the name of RNT.

Regarding the requirement to submit a Waste Management Plan as part of the ESIA, we would like to inform you that, while we have not yet finalized a contract with a certified waste management company, we are committed to doing so before the project moves forward. At present, discussions with potential waste management service providers are ongoing, and we will ensure that a legally binding contract is established in compliance with the environmental regulations of Angola prior to the commencement of the project's construction activities.

As the Waste Management Plan is an integral part of ESIA submission, we respectfully submit this letter as a formal commitment to engage with a qualified and certified waste management firm. The finalized contract will be submitted to the Ministry as soon as it is available.

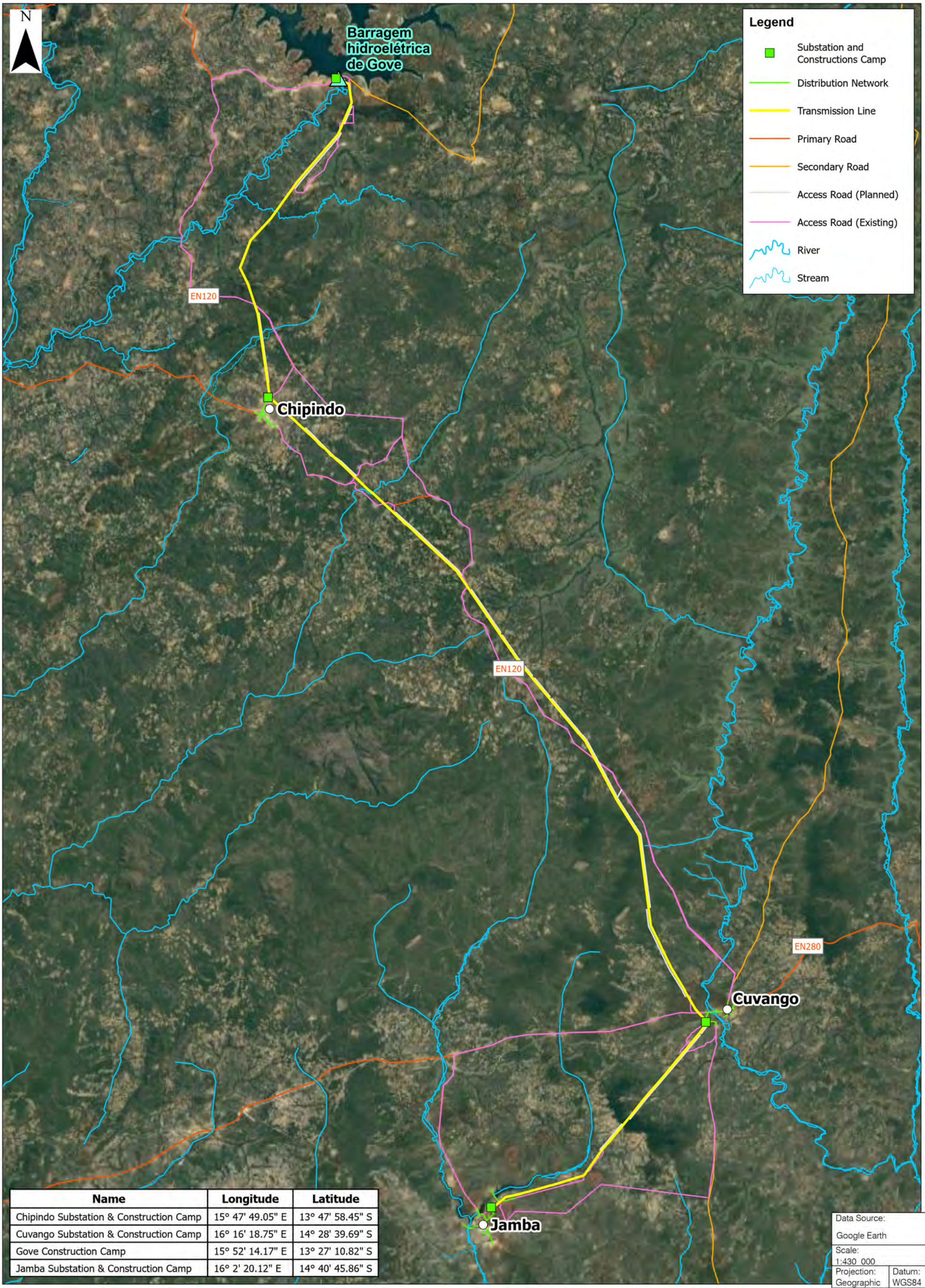
In the interim, we have taken all necessary steps to comply with the regulatory framework and will ensure that all waste generated during the project is managed responsibly and in full accordance with the law. We appreciate your understanding and cooperation in this matter.

Muhammed Esat OLPAK

Board Member

Burhaniye Mahallesi Kanuni Sultan Süleymen Sokak Mabeyin Konakları Sit. No:4/E 34676 Üsküdar-İstanbul
T : +90 216 311 00 51 – F. +90 216 311 00 54
PAK YATIRIM İNŞAAT SANAYİ ve TİCARET A. Ş

Appendix G - Construction camps



Name	Longitude	Latitude
Chipindo Substation & Construction Camp	15° 47' 49.05" E	13° 47' 58.45" S
Cuvango Substation & Construction Camp	16° 16' 18.75" E	14° 28' 39.69" S
Gove Construction Camp	15° 52' 14.17" E	13° 27' 10.82" S
Jamba Substation & Construction Camp	16° 2' 20.12" E	14° 40' 45.86" S

Data Source: Google Earth

Scale: 1:430 000

Projection: Geographic | Datum: WGS84

Central Meridian/Zone:

srk consulting

CASSINGA POWER SUPPLY PROJECT

PROJECT LAYOUT MAP

Date: 11/09/2024 | Compiled by: LOUA

Project No. 595657 | Fig No.

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga_20240201\595657_Cassinga_20240201.aprx\595657_A3P_Cassinga_ProjectLayoutMap_Coords_20240911

Revision: Date:

Appendix N: Community Health, Safety and Security (CHSS)

Cassinga Electrical Powerline – Community Health, Safety and Security Management Plan

Report Prepared for

PAK YATIRIM

Report Number 595657

Report Prepared by

srk consulting

December 2024

Cassinga Electrical Powerline – Community Health, Safety and Security Management Plan

PAK YATIRIM

SRK Consulting (South Africa) (Pty) Ltd
SRK House
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

Tel: +27 (0) 11 441 1111
E-mail: Johannesburg@srk.co.za
Website: www.srk.co.za

SRK Project Number 595657

December 2024

Compiled by:

Tania Oosthuizen
Principal Scientist

Email: toosthuizen@srk.co.za

Reviewed by:

Vassie Maharaj
Partner and Principal Scientist

Authors:

Tania Oosthuizen; Lynette Herbst; Kavandren Moodley

Table of Contents

Disclaimer iv
List of Abbreviations v
1 Introduction 6
2 Overview of the project 6
3 Legislative Framework 9
3.1 Angolan Laws and Regulations 9
3.2 International Guidelines and Standards 11
3.3 UNMAS 11
3.4 Pak Yatirim corporate policies 11
4 Safety and Security Overview 12
4.1 Geopolitical context 12
4.2 Artisanal and small-scale mining (ASM) 12
4.3 Unexploded Ordnances (UXOs) 13
5 Health Overview 16
5.1 Country Profile 16
5.2 Health Facilities in Study Area 16
5.3 Water supply and distribution network 18
5.4 Community Health Programmes 18
6 General OHS Guidelines 20
6.1 Electrical Infrastructure 20
6.1.1 Fire detection and suppression 20
6.1.2 Access 20
6.1.3 Lighting 20
6.1.4 Signage and labelling 20
6.2 Unidentified Minefields 20
6.2.1 Identification of risk 20
6.2.2 Safety and communication 21
6.2.3 Emergency situations 21
7 Management Plan 22
8 Training, Awareness and Competency 31
9 Monitoring and Evaluation 31
10 Conclusions and Recommendations 32
11 References 33

List of Tables

Table 3-1: Legislation and guidelines considered in assessing the socio-economic impacts of the proposed project....9
Table 4-1: Perimeter coordinates of the identified minefields (HALO, 2024). 15
Table 5-1: Health units (AMJ, 2024)....16
Table 5-2: Hospital network in the municipality of Chipindo (CMA, 2024) 17
Table 7-1: Summary of Identified community health, safety and security risks 22
Table 7-2: Community Health, Safety and Security Impact and Risk Mitigation 23

List of Figures

Figure 2-1: Locality map 7
Figure 2-2: Map of the municipalities and communities of Huíla province 8
Figure 4-1: Identified minefields in the project area. *Note the powerline routing is indicated in red*. 13
Figure 4-2: Close-up view of minefield HU027 (HALO, 2024). 14
Figure 4-3: Close-up view of minefields HU002 and HU029 (HALO, 2024)....14
Figure 5-1: Cuvango Municipal Hospital....17
Figure 5-2: Chipindo Municipal Hospital. 18
Figure 5-3: Households using appropriate sources of drinking water by municipality (INE, 2016). 18

Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (South Africa) (Pty) Ltd (SRK) by Pak Yatirim. The opinions in this Report are provided in response to a specific request from Pak Yatirim to do so. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate.

List of Abbreviations

Term	Definition
AIDS	Acquired Immune Deficiency Syndrome
ASM	Artisanal and small-scale mining
CHSS	Community Health Safety and Security
CHA	Community Health Agents
CHW	Community Health Workers
DRC	Democratic Republic of Congo
EHS	Environmental, Health and Safety
ESIA	Environmental and Social Impact Assessment
EPC	Engineering, Procurement and Construction
ESMP	Environmental and Social Management Plan
GIIP	Good International Industry Practice
GoA	Government of Angola
GIIP	Good International Industry Practice
GP	Grievance Procedure
HIV	Human Immunodeficiency Virus
IEC	Information / Education / Communication campaigns
IED	Improvise Explosive Devices
IFC	International Finance Corporation
OHL	Overhead Line
OHSMP	Occupational Health and Safety Management Plan
MINEA	Angolan Ministry of Energy and Water
NPSA	National Policy on Social Action
NCD	Non-communicable Diseases
NGO	Non-Governmental Organisation
NTD	Neglected Tropical Diseases
OHSMP	Occupational Health and Safety Management Plan
RNT	*Rede Nacional de Transporte de Electricidade*
PPE	Personal Protective Equipment
SDG	Sustainable Development Goal
SEIA	Social and Environmental Impact Assessment
SRK	Steffen, Robertson, and Kirsten Consulting
STI	Sexually Transmitted Infection
TB	Tuberculosis
UNMAS	United Nations Mine Action Service
UXO	Unexploded ordinance
WHO	World Health Organisation

1 Introduction

The Republic of Angola, through its Ministry of Energy and Water (MINEA), is embarking on a significant enhancement of its electrical infrastructure with the implementation of the Cassinga Electrical Power Supply project. This initiative is geared towards enhancing electric power provision across multiple communities within the Province of Huíla.

SRK Consulting (South Africa) (Pty) Ltd. (SRK) has been appointed by PAK YATIRIM to undertake an Environmental and Social Impact Assessment (ESIA) for the Cassinga project in Angola. The ESIA process is undertaken in terms of Angolan environmental laws, and in compliance with the World Bank Group Environment, Health, and Safety (EHS) Guidelines and International Finance Corporation (IFC).

This Community Health, Safety and Security (CHSS) Management Plan is required in terms of IFC Performance Standard 4 (IFC, 2012) as project activities, equipment, and infrastructure can increase community exposure to risks and impacts. This plan aims to outline the proponent and contractors' responsibility to avoid or minimise these impacts, with particular attention to vulnerable groups.

The objectives of this (CHSS) Management Plan are to:

- Anticipate and avoid adverse impacts on the health and safety of the affected community during the project life from both routine and non-routine circumstances and put measures in place to manage these impacts; and
- Ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimises risks to the Affected Communities.

This plan should be read with the Social and Environmental Impact Assessment (SEIA) as well as the Occupational Health and Safety Management Plan (OHSMP).

2 Overview of the Project

The Cassinga project is structured around the establishment of a new 220 kV Overhead Line (OHL) network, extending from Gove to Cuvango, and further branching out to Chipindo and Jamba (Figure 2-1). This network includes the construction of new substations in Chipindo, Cuvango, and Jamba (Figure 2-2), each equipped with a 220/30 kV - 20 MVA capacity, in order to distribute the generated power to these villages. The project further includes the laying down of medium voltage overhead lines for distribution, along with the necessary low voltage network, public lighting, and home connections within the communities of Chipindo, Cuvango, and Jamba. The overarching goal is to create a robust and reliable electric power supply system that not only caters to the current demands but is also scalable to accommodate future expansions, including the prospective OHL 220 kV interconnection to Cuchi/Menongue.

An estimated power demand of 80 MW has been calculated for the Cassinga project, with an additional 10 MW anticipated for local community demands. This projection underscores the critical nature of the project in addressing the power needs of the region, fostering economic growth, and improving the quality of life for its residents. The Cassinga Electric Power Supply Initiative represents a significant leap forward in Angola's energy infrastructure development. This project will significantly enhance the electric power distribution network in Huíla Province, catalysing economic development and improving the livelihoods of the Angolan people.

While efforts were made to avoid sensitive environmental and social features, physical and economic resettlement cannot be entirely prevented in the OHL route alignment and substation locations. The placement of infrastructure within maize fields may cause economic displacement. The project will probably affect people's livelihoods, though only temporarily.

The construction and operation of the project involves various occupational health and safety (OHS) risks. Workers will be engaged in high-risk activities, such as working from heights, handling heavy machinery, exposure to high-voltage electrical systems, and operating in remote areas possibly contaminated with unexploded ordnances (UXOs). The environmental conditions, including extreme temperatures and exposure to dust and noise, add additional layers of risk.

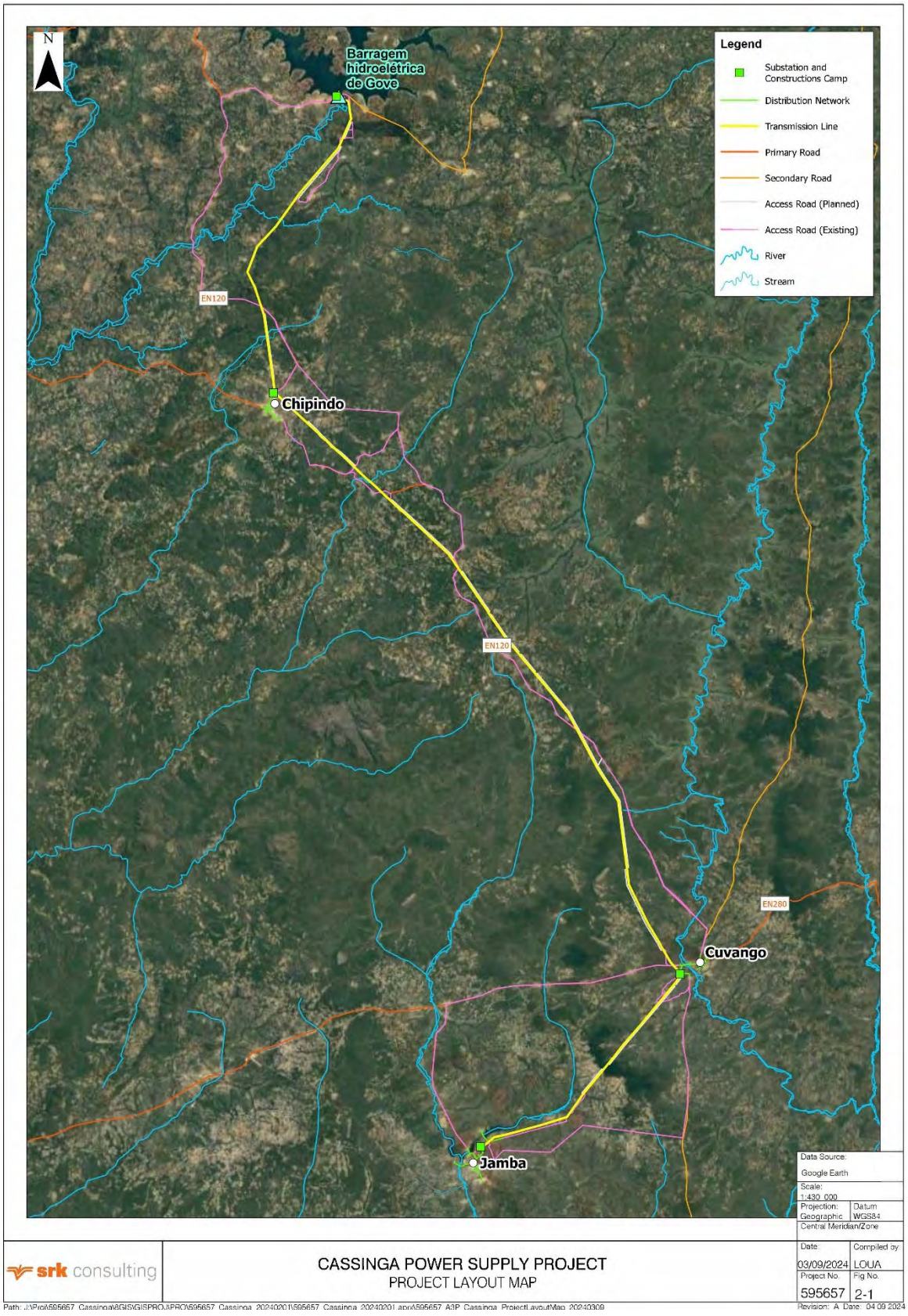


Figure 2-1: Locality map

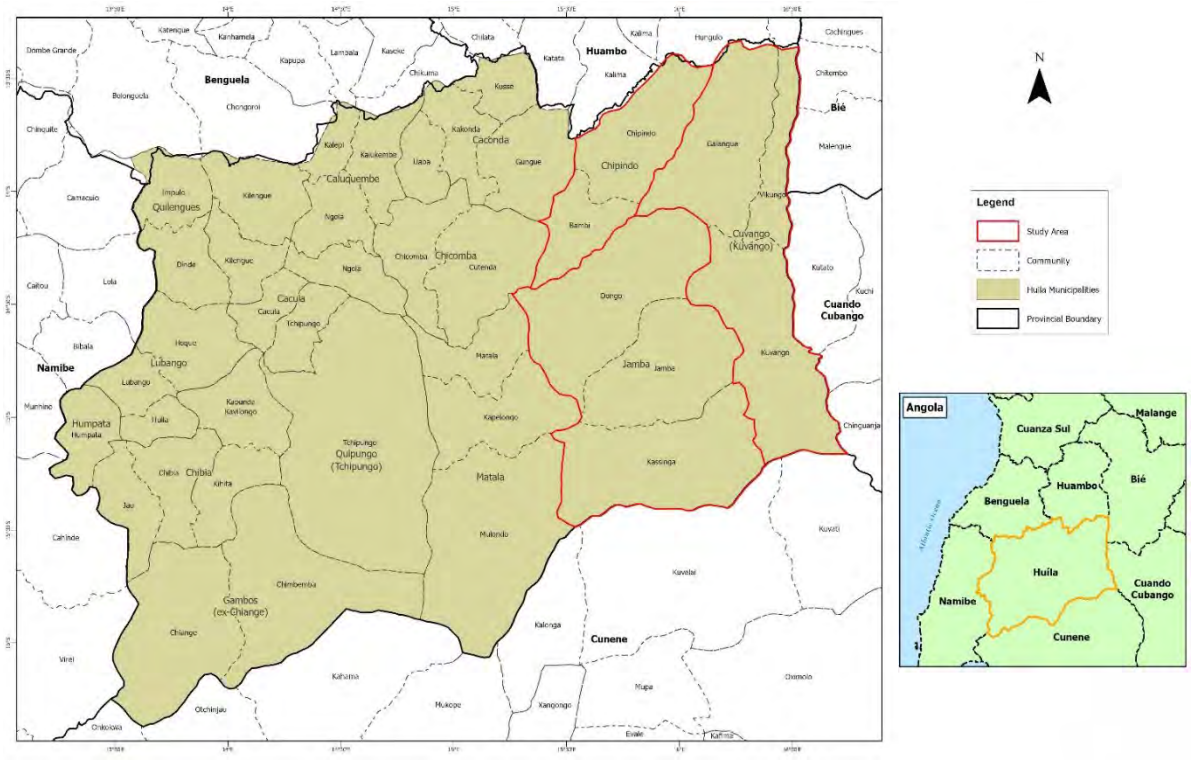


Figure 2-2: Map of the municipalities and communities of Huíla province

Pak Yatirim has been appointed as the engineering, procurement, and construction (EPC) contractor for the project. As EPC contractor, PAK Yatirim will hand the project over to Rede Nacional de Transporte de Electricidade (RNT) once construction is completed.

3 Legislative Framework

The project ESIA provides a detailed review of the applicable Angolan legislation and regulations, international financing institution best practice guidelines and industry guidelines relevant to community health.

The following requirements apply to community health, safety, and security; however, they should not be assumed to be an exhaustive list of all regulatory requirements and project commitments.

3.1 Angolan Laws and Regulations

Table 3-1 lists some of the most pertinent Angolan legislative instruments that relate to social and environmental well-being of communities. These are discussed in more detail in the SEIA (SRK (b), 2024).

Table 3-1: Legislation and guidelines considered in assessing the socio-economic impacts of the proposed project

Legislation and guidelines	Description
Constitution of Angola (Republic of Angola, 2010) / *Constituicao da Republica de Angola*	The Constitution of Angola is the supreme law of the country, adopted in 2010. It outlines the fundamental principles, rights, and duties of the citizens and sets the framework for the organisation of the government and the rule of law in Angola. Chapter II of the Constitution provides for individual and collective fundamental rights, freedoms and guarantees. The principles of the Articles summarised below are considered in the socio-economic impact assessment of the proposed project: • Right to life • Right to personal integrity • Right to identity and privacy • Inviolability of the home: The home is inviolable or sacred. • Right to physical freedom and personal security • Environmental rights
Presidential Decree No. 117/2020 of 22 April on General Regulation on Environmental Impact Assessment and Environmental Licensing Procedures	The 2020 Decree establishes the rules and procedures regulating environmental impact assessments (ESIAs) of public and private projects and the environmental licensing procedures for activities that, by their nature, location, or dimension, are likely to cause significant environmental and social impacts.
Basic Law on Social Protection (Law 7/04 of October 15, 2004) / *Lei n. 7/04 – Estabelece a Lei de Bases da Protecção Social*	The Basic Law on Social Protection establishes a legal framework for social protection. Its purpose is to ensure that the well-being of Angolan citizens is protected through social security, health care, pensions, and other social benefits. It focuses on vulnerable groups such as the elderly, disabled individuals, children, and those living in poverty. The law seeks to protect individuals and families from the economic risks associated with old age, sickness, disability, unemployment, and other situations of need. It also aims to promote social inclusion and overall quality of life, to reduce poverty and inequality, and by providing a basic level of social protection to all citizens. This social protection is financed through tax in an act of national solidarity. The well-being of people, families, and the community, is achieved through social promotion and regional development. This

Legislation and guidelines	Description
	Law gives effect to some of the Constitutional rights summarised above.
Presidential Decree No. 37/21 approving the National Policy on Social Action (NPSA) / *Decreto Presidencial n. 37/21 – Política Nacional da Acção Social*	The Decree approves and establishes the theoretical and methodological bases for the National Policy on Social Action (NPSA). It establishes the State's responsibility for the guidance, management, financing, and control of the NPSA. The purpose of the NPSA is to guide the government's efforts to address social challenges and promote social development. It aims to improve the quality of life of Angolans, particularly the most vulnerable groups such as children, women, elderly, people with disabilities, and those living in poverty. The NPSA focuses on enhancing social protection, access to basic services, and social inclusion. It also emphasises the importance of community participation and collaboration among various stakeholders to achieve its objectives.
Angola 2025: Long-Term Strategy / *Estratégia de Longo Prazo* Strategy to Combat Poverty (2003)	These strategies provide details on current obstacles to development in Angola, such as low human development, a weak economy, inadequate health and education services, and regional inequality. They were developed as part of an ongoing process of reconstruction and national development. The strategies contain plans to eliminate or improve the conditions that Angolan citizens live in. It considers the possible growth of various sectors and the main activities to realise this growth. They make provision for stakeholder engagement to allow the vulnerable to participate actively in the socio-economic development process.
Angola's National Health Development Plan (*Plano Nacional de Desenvolvimento de Saúde*) 2012-2025,	The plan sets strategic goals and priorities for the health sector for the short, medium, and long term. High-level health objectives to be achieved by 2025 include: reducing malaria morbidity in the general population from 21 to 12 percent, and maintaining or reducing HIV/AIDS prevalence at 2 percent, tripling the number of doctors per 10,000 citizens (from 1 to 3), substantially improving birth attendance by qualified staff (from 49 percent to 70 percent), and exponentially increasing family planning services (from 6 percent to 45 percent).
General Labour Law of Angola (No. 12/23 of 27 December)	The General Labor Law of Angola outlines the legal framework governing labour relations, worker rights, and employer obligations within the country. The law aims to ensure fair labour practices, promote workers' rights, and establish a balanced relationship between employers and employees. Key aspects of the law are summarised below.
Occupational Health and Safety Decree (31/94 of 5 August)	The decree is designed to ensure workers' rights to a safe and hygienic work environment. It mandates the provision of protective gear and regular information on workplace safety, hygiene, and health. It also stipulates that employers create conditions for the normal physical, mental, and social development of workers, protecting them from work accidents and occupational diseases.

3.2 International Guidelines and Standards

International standards, guidelines and practices that are relevant to community health, safety, and security, and that informed this plan, include:

- IFC Performance Standard 4: Community Health, Safety and Security (IFC, 2012)
- PS 4 requires sites to avoid or minimise the risks and impacts to community health, safety and security arising from site-related activities (giving particular attention to vulnerable populations), including:
  - Infrastructure and equipment safety;
  - Community exposure to water-borne, water-based, water-related, and vector-borne diseases, e.g., diarrhoea, schistosomiasis, malaria, and communicable illnesses, e.g., hepatitis A/B, tuberculosis
  - Impacts to ecosystem services which indirectly affect health and safety, e.g., loss of vegetation that mitigates the effect of landslides or flooding, reduction in water availability essential for growing certain traditional staple foods
  - Traffic safety
  - Community exposure to (including transport of) hazardous materials and substances released by the site
  - Emergency preparedness and response.
  - Where specific diseases are endemic in communities, the site is encouraged to explore opportunities during the asset lifecycle to improve conditions that could help minimise their incidence.
  - PS 4 guidance notes also stress that all health risks and impacts should be broadly considered and not just restricted to infectious diseases, including, for example, non-communicable diseases or mental health.
- IFC Environmental, Health and Safety (EHS) Guidelines: Community Health and Safety (IFC, 2007)

3.3 UNMAS

The Cassinga project is associated with a former conflict zone which poses the risk of Unexploded Ordnance (UXOs). UXOs are not limited to landmines and can include unexploded ammunition, remnants of war and other improvise explosive devices (IED).

The United Nations Mine Action Service (UNMAS) handbook (UNMAS, 2015) aims to raise awareness and provide basic safety information concerning the threat of landmines, explosive remnants of war (ERW), and IEDs to organisations and individuals working in affected areas. It serves as a manual for people operating in environments contaminated by these hazards.

3.4 Pak Yatirim Corporate Policies

Pak Yatirim has a Sustainability Policy in place (Pak Yatirim, 2024). The socio-economic impacts of the project are assessed not only against Good International Industry Practice (GIIP) and legislative requirements, but also consider the requirements of Pak's own Sustainability Policy. The policy notes that Pak is dedicated to stakeholders, including the communities in which they work by:

- Recognising the social impact and considering the welfare of local communities where their projects are executed;
- Integrating sustainability considerations, such as human rights, health and safety, stakeholder engagement, and corporate social responsibility into their decision-making processes;
- Achieving long-term sustainable outcomes within the communities that their projects are located; and
- Providing exceptional project experiences for stakeholders throughout their projects' supply chains.

Pak's sustainability framework involves a social pillar that focuses on how its actions and business relationships affect people. The company believes in respecting human rights, which is a core value of their company and is committed to upholding these rights by following the principle of "enhancing life for all". Discrimination based on race, nationality, gender, age, religion, disability, and marital status is not tolerated, and employees play their roles in a way that respects human dignity. This is also reflected in the "Diversity and Inclusion" sub-pillar of the policy. Pak opposes any violation of human rights and strives to prevent offensive communication. The company is against child and forced labour and aligns with the United Nations Universal Declaration of Human Rights and the United Nations.

4 Safety and Security Overview

4.1 Geopolitical Context

Decades of conflict, starting with the anti-colonial insurgency in the 1960s and continuing with the civil war from independence in 1975 until 2002, have left Angola with poverty, inequality, and political factionalism (Minority Rights Group, 2023). Ethnic and regional divisions played a significant role, with the three main factions drawing support from different regions and communities. Angola's diverse population, including Ovimbundu, Mbundu, Bakongo, a mixed Portuguese-Angolan *mestiço* population, and indigenous San, still sees identity and geography influencing its politics.

Angola also faces persistent corruption in its oil sector, which has exacerbated governance challenges and entrenched deep poverty among its population, despite significant oil revenues. This has particularly affected the Cabinda region, which, despite containing the majority of Angola's oil, has seen little development and continues to experience insecurity. Separatist violence has occurred sporadically, with significant incidents in 2010 and 2016/17, involving attacks on soldiers and the abduction of workers by separatists.

Angola and the Democratic Republic of Congo (DRC) have historically conducted violent expulsions of each other's nationals. Concerns over Angola's treatment of undocumented migrants have persisted, with the UN Special Rapporteur on the human rights of migrants calling for a national strategy to protect their rights. In October 2018, following an expulsion order, at least 360 000 Congolese nationals crossed back into the DRC, many facing violence, extortion, and other abuses.

4.2 Artisanal and Small-scale Mining (ASM)

ASM in Angola is a significant part of the country's mining sector, particularly in diamond-rich regions. In Angola, this sector is primarily driven by the quest for diamonds, but also includes other minerals like gold and copper.

Artisanal mining in Angola has been linked to conflict, particularly in diamond-rich areas. Illegal mining activities can fund armed groups and contribute to instability. Efforts to establish conflict-free certification schemes aim to ensure that diamonds and other minerals are not funding conflict and are mined under fair conditions.

Despite the wealth generated by ASM, miners often receive a small fraction of the profits. Middlemen and buyers typically gain the most financial benefit, leading to economic disparities.

The Angolan government has made efforts to formalise the ASM sector through the issuance of licenses and the establishment of cooperatives. However, the implementation and enforcement of these policies remain challenging.

ASM was identified in three villages in the vicinity of the project.

4.3 Unexploded Ordnances (UXOs)

The Cassinga project is associated with a former conflict zone which poses the risk of UXOs. UXOs are not limited to landmines and can include unexploded ammunition, remnants of war and other improvised explosive devices.

Three confirmed minefields within the project area were identified and must be **avoided** (Figure 4-1 to Figure 4-3 and Table 4-1). The identification of these minefields and other UXOs is based on knowledge of conflict areas, reports of finding landmines by locals and incidents. Therefore, there is a risk that additional minefields exist in the project area and are yet to be identified, especially between the villages of Jamba and Cuvango to the south (Figure 4-1).

Figure 4-1: Identified minefields in the project area. ***Note the powerline routing is indicated in red.***

Figure 4-2: Close-up view of minefield HU027 (HALO, 2024).

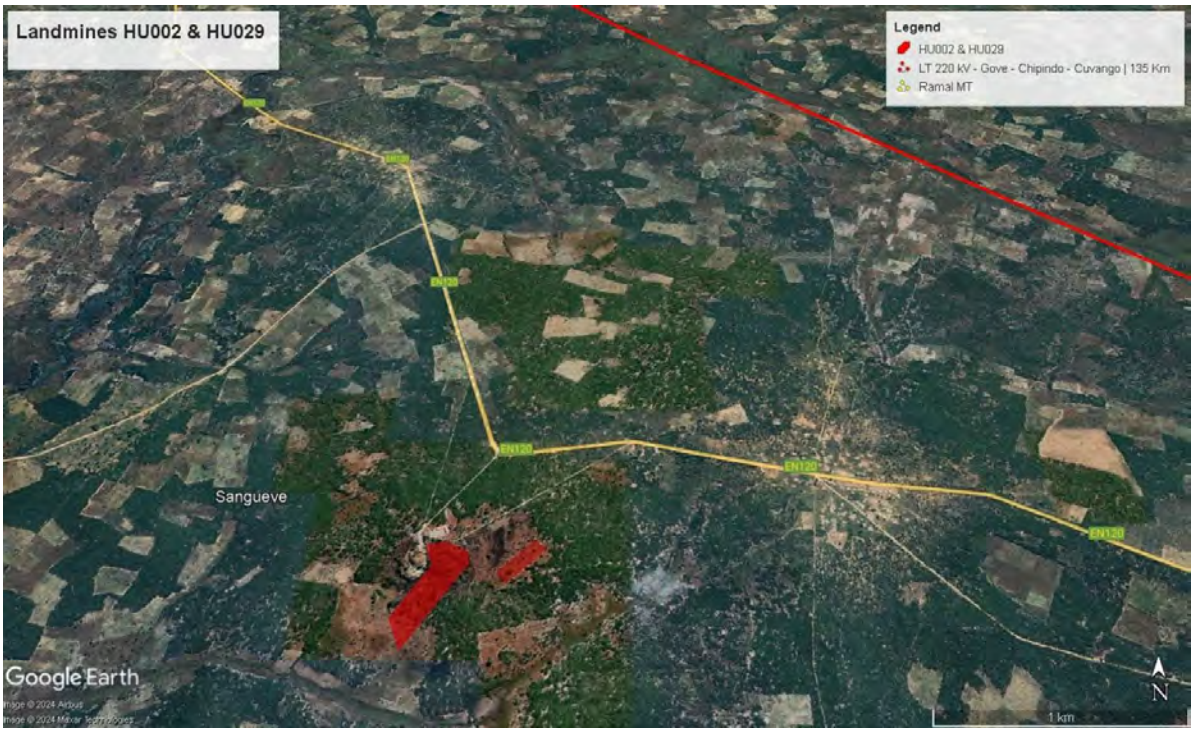


Figure 4-3: Close-up view of minefields HU002 and HU029 (HALO, 2024).

Table 4-1: Perimeter coordinates of the identified minefields (HALO, 2024).

MINEFIELD	UTM	
HU027	X (E)	Y (N)
	611530	8375064
	611786	8374919
	611987	8375116
	612316	8374771
	612279	8374997
	612363	8375199
	612651	8375398
	612743	8374654
	612508	8374567
HU029	591460	8464469
	590679	8464024
	590603	8464187
	590540	8464263
	590717	8464438
	590773	8464382
	590596	8464207
HU002	590283	8464488
	590267	8464446
	590316	8464426
	590412	8464373
	590422	8464313
	590154	8463896
	590089	8464047
	590252	8464299
	590212	8464414

5 Health Overview

5.1 Country Profile

The following key points underpin the health situation in Angola (WHO, 2023)

- Communicable Diseases
  - Malaria: Malaria remains a public health problem in Angola, with an estimated 8.8 million cases (incidence rate of 240 cases per 1000 population) in 2021, resulting in 17,836 deaths (case fatality ratio of 0.20%). The country is off track to meet the Global Technical Strategy for malaria targets as the incidence rate per 1,000 population has risen steadily since 2015.
  - Tuberculosis (TB) and Human Immunodeficiency Virus (HIV) / Acquired Immune Deficiency Syndrome (AIDS): The estimated TB incidence in 2019 is 350/100,000 population. Estimates of mortality rates related to TB remain high but have slightly decreased since 2015 to 51 per 100,000 population. Fifty-seven percent (57%) of people living with HIV know their status. Seventy-two percent (72%) of people living with HIV who know their status are on treatment. Approximately 128,292 people were receiving antiretroviral treatment for HIV in 2021.
  - Neglected Tropical Diseases (NTDs): Angola is endemic for four of the five NTDs amenable to preventive chemotherapy through mass drug administration, namely lymphatic filariasis, soil-transmitted helminthiasis, schistosomiasis, and onchocerciasis. There is limited data on trachoma. In 2021, there were 4.4 million people targeted for MDA, although only 2.7 million were treated. Other notable NTDs that remain endemic are dracunculiasis (Guinea worm), leishmaniasis (cutaneous and visceral), human African trypanosomiasis (gambiense), leprosy and rabies.
- Non-communicable Diseases (NCDs)
  - NCDs are a major health problem in Angola. The age-standardised mortality rate across four major NCDs (Cardiovascular Disease, Chronic Respiratory Disease, Cancer, and Diabetes) was 755 per 100,000 in males and 552 in females in 2021; and
  - Angola has implemented efforts on the NCD progress indicators related to tobacco control and alcohol availability, but progress has been more limited on indicators related to alcohol taxes and advertising restrictions, salt policies, trans fats policies, marketing to children and physical activity guidelines.
- Childhood Immunisation
  - Historically, Angola is one of the countries where immunisation in children has been sub-optimal. The low coverage rate, combined with the relatively high population rise, resulted in an estimated 707,721 under-immunised children and 553,309 zero-dose children. This suggests an urgent need to implement catch-up vaccination strategies in the country.
- Child Survival
  - The under-5 mortality rate has fallen from 89 to 69 per 1000 live births between 2015 and 2021, it is still above the Sustainable Development Goal (SDG) target of 25 per 1,000 live births. Similarly, neonatal mortality fell from 31 to 27 per 1,000 live births in the same period, although it remains above the SDG target of 12.

5.2 Health Facilities in Study Area

5.2.1 Jamba

In the Municipality of Jamba, most health units are concentrated in the communal centres. The table below shows general data for the sector.

Table 5-1: Health units (AMJ, 2024)

Indicator	Hospital	Health centre	Mother and child centre	Health centre	Total
Number of existing sanitary units	1	3	1	14	19

Indicator	Hospital	Health centre	Mother and child centre	Health centre	Total
Number of beds	100	31	22	0	153
Health centres with laboratories	1	0	0	0	1
Number of units with an operating theatre	1	0	0	0	1
Number of units with a blood bank	1	0	0	0	1
Units with fixed vaccination posts	1	3	1	9	14
Number of health centres with a complete package and essential medicines	1	3	1	11	16
Number of advanced/mobile team sessions held for people without access to a health centre	4	3	2	5	14
Number of morgues in operation	1	0	0	0	1

5.2.2 Cuvango

According to data from the Municipality's characterisation report, the sector controls 30 health units, 10 doctors, 124 technical staff and 39 administrative staff. The sector recently received 13 nursing technicians. The number of staff working in these health units is still considered insufficient to meet the demands of the population.

The most common diseases among the population are malaria, acute diarrhoeal diseases, respiratory diseases, and malnutrition, especially among children.

Figure 5-1: Cuvango Municipal Hospital.

5.2.3 Chipindo

Chipindo has seven (7) sanitary units, six (6) of which are permanently built and one (1) made of adobe (clay) as shown in Table 5-2.

Table 5-2: Hospital network in the municipality of Chipindo (CMA, 2024)

Name of health unit	Estimated population	Location	Year built	Type of construction	Beds
Municipal hospital	25 031	Head office	2013/2007	Permanent	84
Bambi health centre	18 319	Commune	2005/2006	Permanent	13
Bunjei health centre	15 141	Sector	2004	Permanent	5
Buloteque health centre	6 231	Sector	2011/2012	Permanent	4
Chiyoya health centre	6 357	Sector	2006	Adobe (clay)	2

Name of health unit	Estimated population	Location	Year built	Type of construction	Beds
Ndovala health centre	5 111	Sector	2011	Permanent	4
Capembe health centre	6 352	Sector	2012/2013	Permanent	4

Malaria is the most common illness among patients seen at the Chipindo municipal hospital's emergency department, which has 11 doctors, 73 nurses and 19 diagnostic technicians.

Figure 5-2: Chipindo Municipal Hospital.

5.3 Water Supply and Distribution Network

In Huíla Province, according to the results of the 2014 Census, only 35.5% of households have access to appropriate sources of drinking water. The municipalities of Chipindo (33.7%), Jamba (25.7%) and Cuvango (24.1%) are below the provincial average in terms of the use of appropriate water sources.

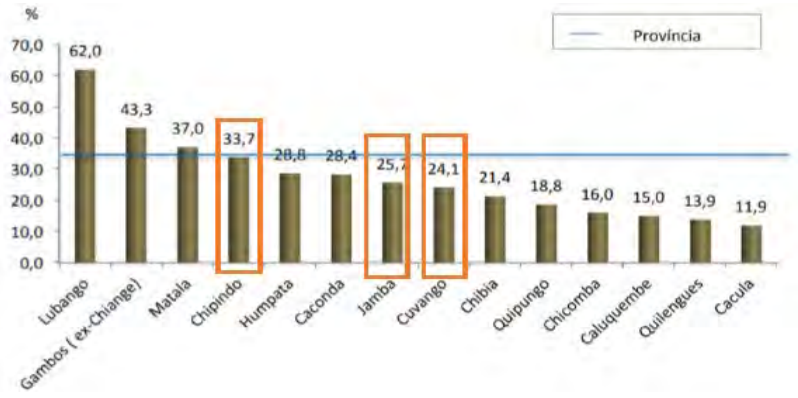


Figure 5-3: Households using appropriate sources of drinking water by municipality (INE, 2016).

5.4 Community Health Programmes

The World Health Organisation (WHO) identified that a key ingredient of primary health care is the use of community health workers (CHWs). CHWs play a role in extending services to hard-to-reach groups and geographic areas (WHO, 2008). CHWs may include traditional birth attendants, caregivers, community mobilisers, and peer counsellors / educators.

In Angola, through support from international and local civil society organisations, Community Health Agents (CHAs), Angola's term for CHWs, are providing HIV primary prevention to the general population through HIV prevention sensitisation sessions in small groups and home visits; counselling and testing at health facilities and in communities; and community-wide events, including school

campaigns. The CHAs also provide HIV secondary prevention to people living with HIV through home visits and sensitisation sessions at health facilities, as well as individual sensitisation sessions to key populations, such as men who have sex with men and female sex workers (USAID, 2014).

6 General OHS Guidelines

6.1 Electrical Infrastructure

6.1.1 Fire Detection and Suppression

During the detailed design phase, a risk assessment will be carried out to determine the risk of fires that can be caused by electrical faults such as arcing occurring in substation equipment. Generally, electric fires mostly occur in substations, and therefore they will be designed to prevent the start and spread of fires by adopting the necessary fire detection and suppression systems.

6.1.2 Access

All enclosed substation buildings will be equipped with a minimum of two entries/exits. These entries/exits will be lockable on the outside and complete with panic bars on the inside, enabling occupants to quickly leave the building by depressing the panic bar in the event of emergencies. These two entries/exits access will allow personnel to leave the substation at any closest point in the event of emergencies. Outdoor substations or switchyards will be fenced off and be equipped with lockable gate/s to restrict unauthorised personnel from entering these areas. Transformer bays will also be equipped with lockable gates, where practically possible.

All equipment requiring servicing or maintenance such as switchgear and transformers, will have unobstructed access and enough clearances around it for ease of maintenance.

6.1.3 Lighting

The project makes allowance for public lighting. The lighting requirements in and around project infrastructure, such as substation buildings and switchyards will be carefully considered during the detailed phase. Lux level calculations will be guided by the minimum workplace illumination intensity requirements set out by national and international standards. This will provide workers with enough visibility to avoid safety incidents. Emergency lighting will also be allowed for to ensure that there is some lighting in the event of normal power failure to ensure safe evacuation of personnel in areas such as substation buildings. A 150 kVA generator will be located at each substation (Chipindo, Cuvango, and Jamba).

6.1.4 Signage and Labelling

The construction phase will allow for signage around areas such as HV OHL towers, substations, and switchyards to ensure that people are aware of the dangers associated with such areas. Labelling of transformers, transformer bays, exit/emergency exits, switchgear and cabling will also be used during construction to ensure safety and ease of fault finding. Signage will be provided and maintained through the life of the project.

All energised electrical devices and powerlines will be marked with warning signs during construction, commissioning, operation, and decommissioning stages of the project. All buried cables will be identified, marked, and made safe during construction to avoid damage and any safety hazards (electrical shocks) during excavation work.

6.2 Unidentified Minefields

6.2.1 Identification of Risk

Identifying the potential risk is the first line of risk mitigation. This could include:

- Identifying warning signs and demarcated areas (official and unofficial) (important to note that unofficial signs can be as simple as a pile of painted rocks);
- Information on risk areas or specific risks from engagements with communities/individuals/local guides;
- Identifying suspicious objects in the field (this could include protruding metal/objects from the ground, metal/electrical wires, and signs of military activity such as trenches, sandbags, or ammo boxes).and
- It is important to always be aware of your surroundings regardless of where you are in the field. Local guides and/or authorities should be consulted on the exacted areas in which fieldwork is to take place prior to commencing with fieldwork.

6.2.2 Safety and Communication

Safety and communication are critical aspects to understand regarding UXO risks. The following safety measures should be considered:

- Complete a travel and site risk assessment prior to any travel to a potentially high-risk area;
- Adhere to Angolan rules / laws regarding travel restrictions and health and safety risks;
- Make available a clear site visit plan detailing the exact areas to visit and the methods involved;
- Avoid risk taking, whether intentional or unintentional, and communicate identified risks to local authorities / guides and the project proponent;
- Adhere to the site visit plan at all times, and keep a record of areas visited and risks identified;
- Avoid venturing into unknown areas or deviating from the site visit plan. If this is required, consult with local authorities/guides on the risks;
- Never conduct fieldwork alone;
- Follow the instructions of the local authority/guides particularly for high-risk areas;
- Avoid approaching any suspicious objects or identified UXOs and alert the local authorities/guides of such;
- Avoid picking up items off the ground or exposing partially covered objects;
- Follow by at least 5-metres behind the local guides and always walk on known pathways/roads; and
- Ensure that all relevant members of the project team are kept in communication with the site visit team members with daily updates regarding progress and any identified risks.

6.2.3 Emergency Situations

The following measures/guidelines should be considered regarding emergency situations:

- Should you find yourself in a minefield or a high-risk area with suspicious objects, consider the following guidelines (as per (UNMAS, 2015)):
  - Do not panic;
  - Stop all movement immediately;
  - Inform others of the situation and keep them away;
  - Visually locate the nearest safe area (i.e., demarcated areas or pathways);
  - Evaluate your course of action in terms of risk to yourself and others; and
  - Wait for the relevant qualified help to arrive and follow their instructions.
- Do not follow instructions from anyone who you deem unqualified and rather wait for the relevant qualified persons to assist;
- If no help is available, retracing your exact footprints is recommended however it is not without risk;
- Communicate any emergency, incident or close call with local authorities, other relevant authorities and indicate the area clearly on a map; and
- In the event of an individual requiring medical attention, remain calm and do not rush to the individual, rather assess the situation and surroundings, and allow for relevant qualified persons to attend to the situation.

7 Management Plan

The risks and potential impacts of proposed construction activities on community health, safety and security, and the related impact avoidance and mitigation measures, are based on the conclusions of the Cassinga ESIA (SRK (a), 2024).

Table 7-1 provides a summary of community health, safety and security risks identified for the Cassinga project. This is used as a basis to determine management measures and responsibilities in Table 7-2.

Table 7-1: Summary of Identified community health, safety and security risks

No	Environmental Health Area	Sub-Category / Examples
1a	**Communicable diseases** • *Disease that is transmissible by contact with infected individuals, i.e., contagious diseases*	Living Environment (such as TB)
1b		Vaccine-preventable diseases (such as measles, mumps, rubella, chickenpox, pneumococcal pneumonia, influenza, typhoid)
1c		Sexually Transmitted Infections (STIs), such as HIV / AIDS
2	**Vector-related diseases** • *Diseases that can be transmitted directly or indirectly between animals and humans*	Mosquito, fly, tick, and lice-related diseases (e.g., malaria, dengue, yellow fever, lymphatic filariasis, rift valley fever, human African trypanosomiasis, onchocerciasis, etc.)
3	**Soil, water, and waste-related diseases** • *Diseases that are transmitted directly or indirectly through contaminated water, soil, or non-hazardous waste*	Diarrheal diseases, schistosomiasis, Hepatitis A and E, poliomyelitis, soil-transmitted helminthiases
4	**Accidents and injuries**	Traffic and machine incidents
5	**Exposure to potentially hazardous materials and UXOs**	Insecticides used for malaria, UXO
6	**Violence**	
7	**Conflict**	
8	**Security Personnel**	
9	**Emergency Preparedness and Response**	
10	**Infrastructure and Equipment Design and Safety**	

Community security requires the consideration of an additional set of factors that include:

- Assessment of the risks posed by its security arrangements to those within and outside the project site, guided by the principles of proportionality and good international practice in relation to hiring, rules of conduct, training, equipping, and monitoring of such workers, and by applicable law;
- Vetting of candidates for security positions with respect to previous deployments and association with past abuses;
- Training of security team with respect to the appropriate use of force (and where applicable, firearms), appropriate conduct toward workers and affected communities; and
- Development of a grievance mechanism for affected communities to express concerns about the security arrangements and acts of security personnel.

Table 7-2: Community health, safety and security impact and risk mitigation measures

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
1a: Communicable Diseases (Living environment)	• Increased burden of disease in community resulting from increased population (workforce and in-migration) and crowded accommodation (community and camps) • Increased number of occupants per room, mixing of occupants (children / elderly / adults) with different vulnerabilities) • Transfer of disease from workforce to community • Increased demand on local community health services • Diminished quality of health care and treatment for local communities as existing limited capacities are overwhelmed	• Increased burden of disease in the workforce, resulting in increased demand on project health services and reduced productivity • Reputation damage • Community resentment	• Implement TB prevention and control program with medical confirmation of TB status before assignment • Provide worker education on TB and its prevention to enable workers to take knowledge into the community • Medical clearance required for return to work for all employees and contractors diagnosed with TB • Adhere to appropriate worker accommodation design and capacity	RNT and Contractor
1b: Communicable Diseases (Vaccine-preventable diseases)	• Potential increase in measles, mumps, rubella, chickenpox, pneumococcal pneumonia, influenza, typhoid outbreaks in the community related to population influx or the introduction of personnel who are not immunised • Increased burden of disease in community • Increased demand on local community health services • Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed	• Increased burden of disease in workforce, resulting in increased demand on project health services and reduced productivity • Reputation damage • Community resentment	• Define and implement pre-employment medical requirements (per minimum health requirements for project) • Require immunisation for transferable diseases for project workers focused on higher risk profiles (e.g., kitchen staff)	RNT and Contractor
1c: Communicable Diseases (Sexually transmitted)	• Movement of high-risk / high-prevalence groups into rural settings (e.g., truck drivers) • Men with money mixing with vulnerable women • Transfer of disease from in- migrants and workforce to community • Increased burden of disease in	• Increased burden of disease in workforce leading to increased demand on project health services and reduced productivity • Reputation damage • Community resentment	• Developing HIV and STI management programs for the workforce; encouraging widespread availability and social marketing of condoms in the workplace • Operate a closed camp policy for expatriates, third country nationals and the local workforce to limit exposure of impacted communities to the project workforce, and therefore to potential communicable diseases and potential transmission • Worker education to focus attention on the	Contractor

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
	community • Increased demand on local community health services • Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed		prevention, identification, and treatment of curable STIs • Maintain voluntary counselling, testing, and referral testing for HIV consistent with local laws	
2: Vector- related diseases (Malaria, dengue, and other vector related diseases)	• Open water sources are created and/or enlarged, because of construction activities and storage of plant, materials and equipment, with the potential for increased mosquito breeding sites • Potential exposure to water- borne, water-based, water- related and vector-borne diseases • Increased burden of disease in community • Increased demand on local community health services • Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed	• Increased burden of disease in workforce, resulting in increased demand for project health services and reduced productivity • Reputation damage • Community resentment	• Develop vector-breeding source reduction procedures at near- and on-shore activities, specifically around earthworks, camps and where goods from international origin is stored. Consider the appropriate storage / cover of goods or, where this cannot be avoided, drainage or application of larvicide • Maintain and expand good housekeeping and waste management on all project sites to prevent the creation of potential vector breeding sites • Provide information for training of workers in malaria awareness so they can take knowledge back to communities • Provide bed nets to workers for take home use • Provide a vector control and dengue management program with case definitions, diagnostics at work sites etc. • Educate workers about reducing dengue risks in the home	RNT
3: Soil, water, and sanitation related diseases	• Depletion of quantity and quality of local water supplies due to project demand, impacting community drinking, bathing and laundry water supplies, and increasing water-related diseases • Increase in faecal-oral diseases resulting from open defecation by the workforce • Over-burdening existing services and systems leading to community water-related outbreaks (e.g., cholera) in nearby communities or worker populations • Project waste could create fly breeding sites, increasing rates of eye infections and fly / sanitation related diarrheal diseases	• Increased burden of disease in workforce leading to increased demand on project health services and reduced productivity • Reputation damage • Community resentment • Compensation claims	• Ensure that project facilities design consider the development of adequate and appropriate sewerage treatment facilities (in both capacity and number) for the management of sewerage and wastewater generated by project infrastructure • Operate and monitor sewage treatment plants according to design capacity • Ensure an adequate number of appropriate mobile sanitation facilities in all work areas. Associated with code of conduct and sanctions for non- conformance. • Evaluate opportunities to develop an effective surveillance system to monitor the impacts of water and sanitation conditions, in partnership with the local authorities • Conduct Information / Education / Communication (IEC) campaigns in the	Contractor

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
	• Contamination of soil and water by project wastes		workforce on proper water use, hygiene, and sanitation • Provide training/education for workers on how to avoid and manage skin diseases • Provide treatment for skin diseases for workers at site clinics	
4: Accidents and injuries	• Increased road traffic and associated risk of accidents and injuries (livestock and people) • Injury and death to people and animals • Damage to property and community assets	• Community resentment • Reputation damage • Work disruption due to blockages and stoppages: productivity loss • Legal and compensation claims • Legal and compensation claims • Damage to reputation • Community resentment	• Ensure drivers successfully complete the project driving safety requirements and possess a valid driver's license for Angola • Develop and implement fitness for work programs for drivers and personnel operating mobile equipment and machinery including vessels operating in the near shore area • Develop community road safety initiatives. Adapt and refine these as required to ensure they remain relevant and address risks. • Implement road safety awareness and education programs for impacted communities, including school programs • Set speed limits and monitor driver behaviour • Developing and effectively communicating a policy for the management of emergencies or accidents in the community as a direct result of the project's activities. This will be developed as part of the project's community safety and security management plans and Emergency Response Plan • Provide Personal Protective Equipment (PPE) to employees, based on risks associated with each activity • Develop and implement workplace illness/injuries compensation fund in accordance with the national laws and good international industry practice • Develop and implement a Traffic and Transport Management Plan	Contractor
5: Exposure to potentially hazardous materials and UXOs	• Releases to air, soil, groundwater, and surface water of potentially hazardous materials • Used / discarded hazardous materials containers could be used for rainwater catchment in local communities	• Breach of Duty-of-care • Legal claims and claims for compensation • Reputation damage • Community resentment • Blockages and stoppages	• Implement environmental monitoring programs (air emissions, noise, water, etc.) • Ensure the development and implementation of effective waste management so the communities do not use project-related discarded containers that may have contained hazardous materials for collecting of water or storage of water or related domestic products	Contractor

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
	• Community exposure to insecticides used for malaria control activities within project premises via air, soil and water routes • Explosion of UXO	• Legal claims and claims for compensation	• Ensure that pest control activities and associated selection of insecticides for malaria control and other pest control activities conform to national programs and policies. • Implement measures to avoid spills affecting communities, as defined in the Emergency Preparedness Plan • Undertake a risk assessment on all hazardous chemical substances on site and determine the specific human health risks that may potentially result from exposure to a product or by product of a process or emission • Undertake a risk assessment for UXOs prior to starting work in an area.	
6. Violence	• Mixing of cultural groups in project camps could contribute to cross cultural violence within communities • Opening of roadways creating in-migration of different cultural groups with potential to disrupt social cohesion • Increased income by some community members disrupting social cohesion, increasing drug and alcohol use and increasing violence • Sudden influx of cash into a barter-based economy	• Workforce disharmony • Reduced productivity • Enhanced risk of accidents and incidents	• Manage cross cultural issues at work camps for other country nationals and Angolan ethnic groups • Conduct worker education on cultural sensitivity, violence, contraband and harassment etc. • Establish system to monitor violence at the community level • Develop a Gender-Based Violence and Harassment (GBVH) Prevention and Response Plan • Training all Project and contract workers on GBVH	Contractor
7. Conflict	• Abandonment of local communities • Regional destabilisation • Threat to well-being of local residents	• Hostility and suspicion directed at project by impacted communities • Need for increased security measures • Loss of confidence by residents and regional government	• Evaluate opportunities to work with local authorities on security intelligence and addressing the risk of acts of terrorism in the area • Provide training on and require all personnel to sign a Code of Conduct and Ethics	RNT
8. Security	• Inappropriate use of force by security • Absence of government support when needed • Human Rights abuses • Failure to identify security risks to communities and to employees	• Loss of trust and support of local communities • Potential radicalisation of residents directed at project • Reputational risk for project and sponsors	• Train security contractors on the Voluntary Principles of Security and Human Rights • Include Code of Conduct and Ethics and GBVH in induction • Audit the performance of security providers • Ensure regular training on human rights • Initiate and maintain effective community	RNT

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
		• Legal claims and claims for compensation	engagement on security arrangements • Record and track any security incidents due to the use of inappropriate, disproportionate, or unlawful use of force • Ensure that community members have access to the grievance mechanism and know they can lodge any security issue through it	
9. Emergency preparedness and response	• Spills, leaks and other accidental releases from project facilities or project- related activities (transport) resulting in community safety-related risks and impacts (e.g., contamination of water supplies, soil contamination, etc.)	• Damage to project assets • Lost opportunity to contain impact • Loss of business continuity • Failure to maintain schedule and costs • Potential to impact on license to operate • Reputation damage • Community resentment • Blockages and stoppages • Claims for compensation	• Identify emergency scenarios and develop emergency preparedness and response plans with allocation of responsibilities to local communities and authorities, (where appropriate) • Develop a documented agreement with the provincial and local district authorities regarding the management of emergencies and incidents in both the communities and project facilities that may affect the health of communities and / or the project workforce. This includes interface requirements as well as clearly defined roles and responsibilities for all stakeholders • Develop appropriate emergency preparedness and response capabilities. • Develop specific stakeholder engagement plan based on consultation and participation with government and communities regarding the nature and potential consequences of the risks	Contractor
10. Infrastructure and equipment design and safety	• Failure of containment or retention structures (e.g., bunds, dam, pond etc.), stockpile, reclaimed areas etc. leading to safety risks for communities or harm to resources on which they depend (e.g., groundwater) • Injury or accident to community members, project employees or livestock resulting from project-related transport • Dust generation from transport impacting air quality and causing nuisance impacts for communities • Contamination of water supplies (e.g., dust on roofs used as catchments for water tanks)	• Community resentment • Blockages and stoppages • Claims for compensation • Damage to reputation	• Adopt appropriate design standards • Check and maintain bunding, containment structures, and surface conditions; monitor for leaks, loss of integrity, etc. • Civil works designed and maintained with water and stormwater management in mind, including sediment traps and other erosion control measures as appropriate • Optimise road transport requirements, including consideration for logistics management (minimisation of vehicle movements etc.) • Implement speed restrictions for project and contractor vehicles • Establish and maintain community grievance process • To the extent possible, provide access for pedestrians and vehicles in areas where pedestrians and project vehicles mix including but not limited to alternative temporary pathways and roads to ensure ongoing access to major community assets	Contractor

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
11. Community/ socio-cultural risks	• Unfair distribution of electricity • Perceived preferential project benefits • ASM restrictions and consequent safety risks • Restriction of traditional agricultural practices	• Community resentment • Blockages and stoppages • Claims for compensation • Damage to reputation	• Publicise intended connections well ahead of time • Consult stakeholders on preferred, most communally beneficial connections. If possible, prioritise connections for public lighting that would increase safety, public services such as clinics, or business centres that would allow various persons to benefit from a single connection • Provide regular feedback on when connections are planned for implementation • Communicate the IFC-compliant grievance mechanism in the Project Affected Communities (PACs); • The long-term functioning and maintenance of the powerlines and substations must be sustained to ensure that it benefits the PACs permanently • The potential to include remote groups such as the settled San families should also be considered in long-term strategic planning for the expansion of the transmission network • Where local small, medium and micro enterprises (SMMEs) are available, the project should aim to make use of their products or services where possible. SMME databases might be available from local municipal administrations • Where local SMMEs are supported, ensure that it does not cause division between those with whom the contractor does business and those with whom it does not • Ensure that the main construction contractor has a preferential recruitment policy in place that requires a certain number of local employees from within all six affected municipalities, not just the three beneficiary municipalities • Where possible, designate employment opportunities for women and disabled persons employees from within all affected municipalities, not just the three beneficiary municipalities • Where local skillsets are available, the Project should aim to employ these persons as far as practicable. Skills databases can be obtained from local municipal administrations • Establish a mobile labour desk prior to the construction phase, so that potential workers residing in the villages, and not just the municipal urban centres, can all get a fair chance to apply through a	RNT and Contractor

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
			single channel • Awareness-raising of application opportunities should be done beforehand with the support of local municipal administrators and *sobas* to ensure that applicants can prepare the relevant documents. Capacity building with municipal administrators and sobas on the importance of inclusivity and non-discrimination might be necessary to ensure true support • Ensure that, when any engagements related to employment opportunities and financial management take place, all adult members of the household are present. Females might be preparing agricultural fields, harvesting, collecting water, washing clothes, or bathing during normal working hours when these engagements are conducted • Any wage payments should be provided along with relevant education on financial literacy and responsible spending • Visuals and simple text in Umbundu, Nganguela, Portuguese and !Kung should be used in workplaces, awareness and education sessions on inclusion and financial literacy. Communicating in local languages is very important to ensure that women who do not understand Portuguese know their rights as employees. • Ensure that agreements with the appointed security company include the following, and that local law enforcement are aligned with the following: – When hiring security personnel, a reasonable effort must have been made to screen them for past abuses – Security personnel need to be properly trained in the use of force and, most importantly, appropriate conduct towards villagers – Severe penalties/disciplinary action should be taken against any security personnel involved in theft or abuse – A code of conduct must be developed and enforced for the security personnel – The code of conduct must be consistent with the UN Code of Conduct for Law Enforcement Officials, the UN Basic Principles on the Use of Force and Firearms by Law Enforcement	

Topic	Risk / Impact to Community	Risk / Impact to Project	Control (Mitigation) Measures	Responsibility
			Officials, and Voluntary Principles on Security and Human Rights (VPSHRs) • All workers are to be informed about the roles and responsibilities of the security personnel • Liaise with local law enforcement, police and/or other security entities on their strategies for managing ASM activities in the area • Provide employment opportunities for unskilled labour from the PACs as far as possible; • Conduct stakeholder engagement prior to site establishment to ensure that there is widespread awareness of the land that is in RNT's possession and that will be used for the transmission line (or the National Electricity Distribution Company's (ENDEs) land for the distribution network) to discourage ASM • Ensure that the CHSS plan is included in contract documents of the main contractor and implemented by them and the transmission and distribution line operators • Communicate the IFC-compliant grievance mechanism in the PACs • Implement an IFC-compliant RAP/LRP. The process should not only meet national legislation, but also comply with GIIP requirements, such as IFC PS5 if economic displacement is caused by the Project • Provide alternative land or resources (e.g. water) if access is restricted • If replacement land and livelihood restoration support are provided, the land should be of better quality and potential assistance or support for agricultural resources provided. PAPs or project-affected households should be upskilled on alternative farming methods if current practices such as vegetation clearing and burning cause safety risks to the project • Any livelihood restoration and transitional support must be accompanied by education and awareness-raising on responsible and sustainable farming practices. There might be other cost-effective, waterwise and sustainable farming practices based on new technologies or research	

8 Training, Awareness and Competency

RNT and the appointed contractor will ensure that personnel responsible for the execution of tasks and requirements in this plan are competent based on education, training, and experience.

This plan requires training to be provided to workers who may be exposed to hazards (health, safety, or security) associated with project activities.

This plan requires workforce awareness program / training to be provided as part of camp initiation as well as incorporated into ongoing and regular training commitments, particularly regarding the management of communicable diseases. All RNT, contractor, and sub-contractor personnel can participate in this training, which will be designed and executed by the Contractor after receiving review and approval from RNT. The training will cover a wide range of topics, including, but not limited to:

- Voluntary Principles for Security and Human Rights training for all project security guards and security management, including the appropriate use of force and protection of human rights;
- GBVH
- STI and HIV/AIDS prevention and awareness training for all employees;
- Sanitation and nutrition awareness and education for all employees, with a focus on messages which can be taken home to families to encourage good sanitation and nutrition practices in village environments;
- Respiratory illness and infectious disease management, including TB;
- Vector-borne disease awareness, including malaria and dengue;
- Speed restrictions in populated areas, safe driving in rural areas, safe driving in dusty environments, defensive driving and basic first aid;
- Benefits of vaccinations and disease prevention; and
- Adverse impacts of drug and alcohol usage.

9 Monitoring and Evaluation

RNT will put in place measures to monitor the effectiveness of the CHSSP. This could be based on performance indicators, such as:

- Rates of communicable disease in the project workforce;
- Rates of communicable disease in the community;
- Project related safety, security incidents in the community; and
- Numbers of grievances or claims of project related impacts on the community.

A monthly report should be prepared on the performance indicators to ensure that improvements and additional mitigations can be implemented as and when required.

The CHSS must be reviewed and updated annually based on the findings and recommendations of monthly reports and the abovementioned performance indicators.

Some aspects of the CHSSP include provisions for specific community health monitoring which may be undertaken in partnership with government, Non-governmental Organisations (NGOs), or third parties.

RNT may, at its discretion, audit any contractors, subcontractors, or suppliers to assess compliance with this plan. RNT may also, at its discretion, undertake audits of other third-party facilities and providers associated with the project, as relevant to the Environmental and Social Management plans.

10 Conclusions and Recommendations

The information presented in this high-level plan should be used as a guide in addressing the community health, safety, and security aspects of the Cassinga project. As updated information may be available at that time, it is recommended that this plan is reviewed and revised prior to construction phase and updated during the operational phase.

Prepared by

pp

Tania Oosthuizen (*Pr.Sci.Nat.*)
Principal Scientist

Reviewed by

Vassie Maharaj
Principal Scientist

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

11 References

AMJ. (2024). *Municipal Profile.* Jamba: Municipal Administration of Jamba (AMJ).

Amnesty International. (2023). *Angola*. Retrieved March 7, 2024, from https://www.amnesty.org/en/location/africa/southern-africa/angola/report-angola/

CMA. (2024). *Municipal Profile.* Chipindo: Chipindo Municipal Administration.

da Silveira, M. L. (2014). *Human Rights and Social Change in Angola*. Retrieved March 13, 2024, from https://sur.conectas.org/en/human-rights-and-social-change-in-angola/

DBSA. (2021). *Chapter 3: Angola in the Handbook of Environment Protection*. Retrieved March 13, 2024, from https://www.dbsa.org/sites/default/files/media/documents/2021-05/Chapter%203b%20Angola%20English.pdf

Human Rights Watch. (2021). *Angola: Events of 2021*. Retrieved March 7, 2024, from https://www.hrw.org/world-report/2022/country-chapters/angola

IFC. (2007). *Environmental, Health, and Safety (EHS) Guidelines. Community Health and Safety.*

IFC. (2012). *Performance Standard 4. Community Health, Safety and Security.*

INE. (2016). *Final Results. General Population and Housing Census of Angola.* Luanda: National Statistics Institute.

INE. (2017). *Key Findings of the 2015-16 Angola Multiple Indicator and Health Survey (IIMS).* Luanda: National Institute of Statistics / Instituto Nacional de Estatística (INE).

INE. (2022). *Agro-Livestock and Fisheries Census (RAPP 2019-2020): Results of the Community Report, Village Census, Volume II.* Luanda: National Statistics Institute (INE).

Minority Rights Group. (2023). *Angola: Communities*. Retrieved from MinorityRights.Org: https://minorityrights.org/country/angola/

OHCHR. (2008). *Committee on Economic, Social and Cultural Rights Considers Report of Angola*. Retrieved March 13, 2024, from https://www.ohchr.org/en/press-releases/2009/10/committee-economic-social-and-cultural-rights-considers-report-angola

OHCHR. (2016, May 10). *UN Special Rapporteur on the human rights of migrants concludes country visit to Angola*. Retrieved from Special Procedures: https://www.ohchr.org/en/statements/2016/05/un-special-rapporteur-human-rights-migrants-concludes-country-visit-angola

Pak Yatirim. (2024). *Sustainability Policy.* Retrieved March 7, 2024, from https://pakyatirim.com/en/images/Sustainability-Policy.pdf

SRK (a). (2024). *Cassinga Powerline Project. Environmental and Social Impact Assessment.*

SRK (b). (2024). *Cassinga Electrical Powerline. Socioeconomic Impact Assessment.*

UN. (2013). *Summary report of the Human Rights Council panel discussion on the negative impact of corruption on the enjoyment of human rights*. Retrieved March 7, 2024, from

https://www.ohchr.org/en/documents/reports/summary-report-human-rights-council-panel-discussion-negative-impact-corruption

UNDP. (2018). *Human Development Indices and Indicators: 2018 Statistical Update.* New York: United Nations Development Programme (UNDP).

UNMAS. (2015). *Landmines, Explosive Remnants of Water and EID Safety Handbook.*

USAID. (2014). *BLC Technical Brief. Community Health Workers and their Role in Implementing HIV Services in Angola.*

WHO. (2008). *The World Health Report 2008 - Primary Health Care (Now More Than Ever).* Geneva.

WHO. (2023). *Country Disease Outlook. Angola.*

Appendix O: Land Acquisition and Resettlement Framework (LARF)

Cassinga Electrical Powerline - Land Acquisition and Resettlement Framework (LARF)

Report prepared for

Pak Yatirim

Report number 595657

Report prepared by

srk consulting

October 2024

Cassinga Electrical Powerline Land Acquisition and Resettlement Framework (LARF)

Pak Yatirim

SRK Consulting (South Africa) (Pty) Ltd
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

e-mail: johannesburg@srk.co.za
website: www.srk.co.za

Tel: +27 (0) 11 441 1111
Fax: +27 (0) 11 880 8086

SRK Project Number: 579934

October 2024

Compiled by:

T Oosthuizen
Principal Scientist

L Herbst
Senior Scientist

Peer Reviewed by:

V Maharaj
Partner

External Review by:
T Hart

External Social Consultant

Table of contents

List of abbreviations vi
Glossary of terms viii
1 Introduction 1
1.1 Overview of the project 1
1.2 The project proponent 4
1.3 Land requirement for the project 4
1.4 Estimated physical and economic displacement 5
1.4.1 Site reconnaissance 5
1.4.2 Spatial analysis 5
1.4.3 Access roads 7
2 Resettlement instruments 9
2.1 Framework 9
2.2 Resettlement and livelihood plans 9
2.3 Stakeholder engagement 10
2.4 Roles and responsibilities 10
2.5 Resettlement principles and objectives 13
3 Socio-economic environment 16
3.1 Administrative areas 16
3.2 Results of the socio-economic survey (local context) 16
4 Legislative and regulatory framework 18
4.1 Angolan legal framework 18
4.1.1 Constitution of Angola (2010) 18
4.1.2 Land Law (2004) 18
4.1.3 Territorial and Urban Planning Law (2004) 18
4.1.4 The Presidential Decree, National Policy for Land Concession (2016) 19
4.1.5 Presidential Decision No. 14/18 on Interministerial Commission (2018) 19
4.1.6 General Regulation for Land Concession (2007) 19
4.1.7 Legal Regime of Land Registry (2021) 19
4.1.8 Expropriation for Public Purpose Act (2021) 19
4.1.9 Decree on Regulation for the licencing and Security of Electric Facilities (2004) 20
4.1.10 Land tenure / rights 20
4.1.11 Customary law 21
4.1.12 Overall perception of property rights 21
4.2 International guidelines 22
4.2.1 IFC Performance Standard 5 22
4.2.2 IFC Good Practice Handbook: Land Acquisition and Involuntary Resettlement 22
4.2.3 World Bank Operational Manual (OP4.12) 23
4.3 Comparison between Angolan legislation and IFC 23

5 Resettlement planning 28
5.1 Step 1: Impact identification 28
5.2 Step 2: Project description and impact minimisation 28
5.3 Step 3: Legislative and policy review 28
5.4 Step 4: Stakeholder engagement 29
5.4.1 Engaging with vulnerable people 29
5.5 Step 5: Grievance management 30
5.6 Step 6: Household census 30
5.7 Step 7: Asset inventories and valuations 31
5.7.1 Replacement value approach 32
5.7.2 Angolan rates for evaluation of assets and compensation 32
5.8 Step 8: Identification of replacement land and suitable host sites 35
5.8.1 The provision of replacement land 35
5.8.2 Host site selection and development 35
5.9 Step 9: Livelihood restoration planning 36
5.10 Step 10: Determining compensation and entitlements 36
5.10.1 Eligibility and entitlement 36
5.10.2 Eligibility criteria 36
5.10.3 Entitlement 37
5.10.4 Cut-off date 45
5.11 Step 11: Preparing and disclosing a Resettlement Action Plan 45
5.12 Step 12: Proceed with resettlement implementation 45
6 Resettlement implementation 46
7 Budget and schedule 47
7.1 Budget 47
7.2 Schedule 47
8 Monitoring and evaluation 48
8.1 Objectives 48
8.2 Frameworks and indicators 48
8.3 Evaluation 50
9 Conclusion 51
9.1 Land requirement 51
9.2 Estimated physical and economic displacement 51
9.3 Optimisation 52
9.4 Resettlement planning 52
9.5 Livelihood restoration 52
10 References 53
Annexure A: Buffer zone maps 54
Annexure B: Contents of a RAP 65

List of tables

Table 1-1: Anticipated land requirement for the project 4
Table 1-2: Preliminary Quantification of Total Affected Structures and Farmland 5
Table 1-3: Preliminary Quantification of Affected Structures at Chipindo, Cuvango and Jamba 6
Table 1-4: Preliminary Quantification of Affected Structures from the HV line 6
Table 2-1: Stakeholder responsibilities in the resettlement process 13
Table 4-1: Land Tenure in Angola (EPAL, 2019) 20
Table 4-2: Comparison of Angolan law and IFC PS 5 25
Table 5-1: Government Compensation Rates for Crops and Trees (2018). 33
Table 5-2: Compensation Rates for Crops and Trees (2015). 33
Table 5-3: Classification of Replacement Housing. 35
Table 5-4: Eligibility and entitlement framework 39
Table 8-1: Key Performance Indicators 48

List of figures

Figure 1-1: Project site locality 2
Figure 1-2: Project layout 3
Figure 1-3: Example of roadside preparation of land for crop planting (road in foreground) 7
Figure 1-4: Example of roadside movable economic activity (road in foreground) 7
Figure 1-5: Overview map 8
Figure 2-1: Stakeholder Engagement Components 10
Figure 2-2: Organogram of Role Players in the Resettlement Process and Grievance System 12
Figure 2-3: Resettlement principles 14
Figure 3-1: Map of the municipalities and communities of Huíla province 16
Figure 5-1: Key components of the resettlement process 28
Figure 5-2: Eligibility criteria as per IFC PS 5 37
Figure 6-1: Key Resettlement Implementation Phase tasks 46

List of abbreviations

AOA	Angolan Kwanza (Kz), currency
AoI	Area of Influence
CBO	Community-Based Organisation
CLO	Community Liaison Officer
CRC	Community Relations Committee
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
EPAL	Luanda Water Company
GAC	Grievance Appeal Committee
CRC	Grievance Resolution Committee
GIS	Geographic Information System
GoA	Government of Angola
HSE	Health, Safety and Environmental
INOTU	National Institute for Spatial Planning and Urban Development
IFC	International Finance Corporation
kV	Kilovolt
KII	Key Informant Interviews
KPI	Key Performance Indicators
LARF	Land Acquisition and Resettlement Framework
LGA	Local Government Area
LRP	Livelihood Restoration Programme
MoU	Memorandum of Understanding
M&E	Monitoring and Evaluation
MINAMB	Ministry of the Environment
MINEA	Ministry of Energy and Water
MVA	Megavolt Ampere
MW	Megawatt
NGO	Non-Governmental Organisation
OHL	Overhead line

PAP	Project-Affected Person
PG	Provincial Governor
PS	Performance Standard
RAP	Resettlement Action Plan
RNT	National Electricity Transmission Network
SE	Stakeholder Engagement
SEM	Stakeholder Engagement Manager
SEP	Stakeholder Engagement Plan
SEIA	Socio-Economic Impact Assessment
SRK	SRK Consulting South Africa (Pty) Ltd
USD	United States Dollars

Glossary of terms

Term	Definition
Resettlement Action Plan (RAP)	The document in which a project proponent specifies the procedures that it will follow and the actions that it will take to mitigate adverse effects, compensate for losses, and provide development benefits to persons and communities displaced by a project.
Community	A group of individuals broader than a household, who identify themselves as a common unit due to recognised social, religious, economic, or traditional governmental ties, or through a shared locality.
Compensation	Payment in cash, or in kind, for an asset or resource that is acquired or affected by a project at the time that the asset needs to be replaced.
Cut-off date (Sometimes called a "moratorium")	The date after which any new structures, trees, crops, and other immovable assets will not be counted or measured for compensation purposes. The intent of the cutoff date is to avoid opportunistic settlement or construction of new structures by existing households (in the expectation of compensation) in the area earmarked for project use.
Displacement assistance	Support provided to people who are physically displaced by a project. Assistance may include transportation, shelter, and services that are provided to affected people during their move. Assistance may also include cash allowances that compensate affected people for the inconvenience associated with displacement and defray the expenses of a transition to a new locale, such as moving expenses.
Economic displacement	Loss of income streams or means of livelihood resulting from land acquisition or obstructed access to resources (land, water, or forest), which results from the construction or operation of a project, or its associated facilities.
Economically displaced households	Households whose livelihoods are impacted by a project, which can include both resident households and people living outside the project area, but having land, crops, businesses, or various usage rights inside a project area.
Eligible land	The land (cropped and fallow, agricultural and communal) within this project's moratorium area that is eligible for compensation in accordance with this LARF.
Eligible structures	The buildings and structures constructed within this project's moratorium area prior to the moratorium date, and that are eligible for compensation in accordance with this LARF.
Homestead	Stand on communal/traditional authority land, allocated to an individual or household, on which the latter has built a residential structure and possibly one, or more, outbuildings. The perimeter may be enclosed by a fence.
Host community	People living in, or around, areas to which people, who are physically displaced by a project, will be resettled to, and who, in turn, may be affected by the resettlement.
Household	A person or group of individuals living together, in an individual dwelling, who share cooking and eating facilities and form a basic socio-economic and decision-making unit.
International Finance Corporation (IFC)	A division of the World Bank Group, that provides investment and advisory services to private sector projects in developing countries, with the goal of ensuring that all people benefit from economic growth.
Involuntary resettlement	Involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) because of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement. This occurs in cases of (i) lawful expropriation or temporary or permanent restrictions on land use and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail.
Livelihoods programs	Programs intended to replace or at least restore quality of life indicators (education, health, nutrition, water and sanitation, income), and maintain and where possible improve economic security for project-affected people, through providing economic and income-generating opportunities, including, but not limited to activities such as training, agricultural production and processing, and small and medium enterprises.

Term	Definition
Performance Standard 5	PS 5 lays out standards and requirements to be followed by project protagonists seeking to resettle communities and households affected by project-based land acquisition
Physical displacement	Loss of shelter and assets resulting from the acquisition of land associated with a project requiring the affected person(s) to move to another location.
Physically displaced household	Households who normally reside in a project area, and who will lose access to shelter and assets because of the acquisition of land associated with a project requiring them to move to another location.
Project-affected household	All members of a household, whether related or not, operating as a single socio-economic and decision-making unit, who are affected by a project.
Relocation	A process through which physically displaced households are provided with a onetime lump sum compensation payment for their existing residential structures and their move from a project area.
Replacement cost	Replacement cost is defined as the market value of the assets plus transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Market value is defined as the value required to allow Affected Communities and persons to replace lost assets with assets of similar value. The valuation method for determining replacement cost should be documented and included in applicable Resettlement and/or Livelihood Restoration plans.
Resettlement	A process through which physically displaced households are provided with replacement plots and residential structures at a designated site. Resettlement includes initiatives to restore and improve the living standards of those being resettled.
Resettlement- affected household	Any household that will be affected by land acquisition because of a project; this includes physically displaced and economically displaced households. In other words, it comprises all those households who either reside, have an asset or structure within, or make use of land that intersects any of a project's servitudes.
Resettlement Policy Framework (RPF) also referred to as Land Acquisition and Resettlement Framework (LARF)	A resettlement policy framework is required for projects with sub-projects or multiple components that cannot be identified before project approval. This instrument may also be appropriate where there are valid reasons for delaying the implementation of the resettlement, provided that the implementing party provides an appropriate and concrete commitment to its future implementation. The policy framework should be consistent with the principles and objectives of PS5.
Stakeholders	All individuals, groups, organisations, and institutions interested in, and potentially affected by, a project, or having the ability to influence a project.
Tenant	A person who lives in a structure or on land belonging to another, regardless of whether they pay rent or not.
Traditional authority	A person or group of persons with a community leadership role defined in terms of tradition or custom.
Vulnerable household	A household that, by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by resettlement than others, and that may be limited in ability to claim, or take advantage of, resettlement assistance and related development benefits.

1 Introduction

The Republic of Angola, through its Ministry of Energy and Water (MINEA), is embarking on a significant enhancement of its electrical infrastructure with the implementation of the Cassinga Project. This initiative is geared towards enhancing electric power provision across multiple communities within the Province of Huíla. The primary aim of the project is to facilitate power supply for both the Cassinga Project itself and the neighbouring communities.

SRK Consulting (South Africa) (Pty) Ltd. (SRK) has been appointed by Pak Yatirim to undertake an Environmental and Social Impact Assessment (ESIA) for the Cassinga Project in Angola. The ESIA process is undertaken in terms of Angolan environmental laws, and International Finance Corporation (IFC) standards. The project has been registered with the Ministry of the Environment (MINAMB) (Protocol No. 18524917237).

This Land Acquisition and Resettlement Framework (LARF) forms a first phase of the land acquisition process. It provides an overview of the objectives, principles, policies, procedures, and organisational arrangements for dealing with land access and resettlement for the Cassinga project. It considers national legislation and international policies and standards. The World Bank Operational Manual (4.12) (World Bank (a), 2001), the IFC Performance Standard (PS) 5 (IFC, 2012), and the IFC Good Practice Handbook on land acquisition and involuntary resettlement (IFC, 2023) are considered.

1.1 Overview of the project

The Cassinga project is structured around the establishment of a new 220 kV Overhead Line (OHL) network, extending from The Gove Hydro Dam to Cuvango, and further branching out to Chipindo and Jamba (Figure 1-1). The project includes distributing the generated power to these villages by constructing new substations in Chipindo, Cuvango, and Jamba. Each substation has a capacity of 220/30 kV – 20 MVA. The overarching goal is to create a robust and reliable electric power supply system that not only caters to the current demands but is also scalable to accommodate future expansions, including the prospective OHL 220 kV interconnection to Cuchi/Menongue.

The project includes the laying down of medium voltage overhead lines for distribution, along with the necessary low voltage network, public lighting, and home connections within the communities of Chipindo, Cuvango, and Jamba.

An estimated power demand of 80 MW has been calculated for the Cassinga project, with an additional 10 MW anticipated for local community demands. This projection indicates the power needs of the region, and the potential for fostering economic growth, and improving the quality of life for its residents. The Cassinga Electric Power Supply Initiative represents a significant step in Angola's energy infrastructure development. The project is positioned to significantly enhance the electric power distribution network in Huíla Province, thereby catalysing economic development and improving the livelihoods of the Angolan people.

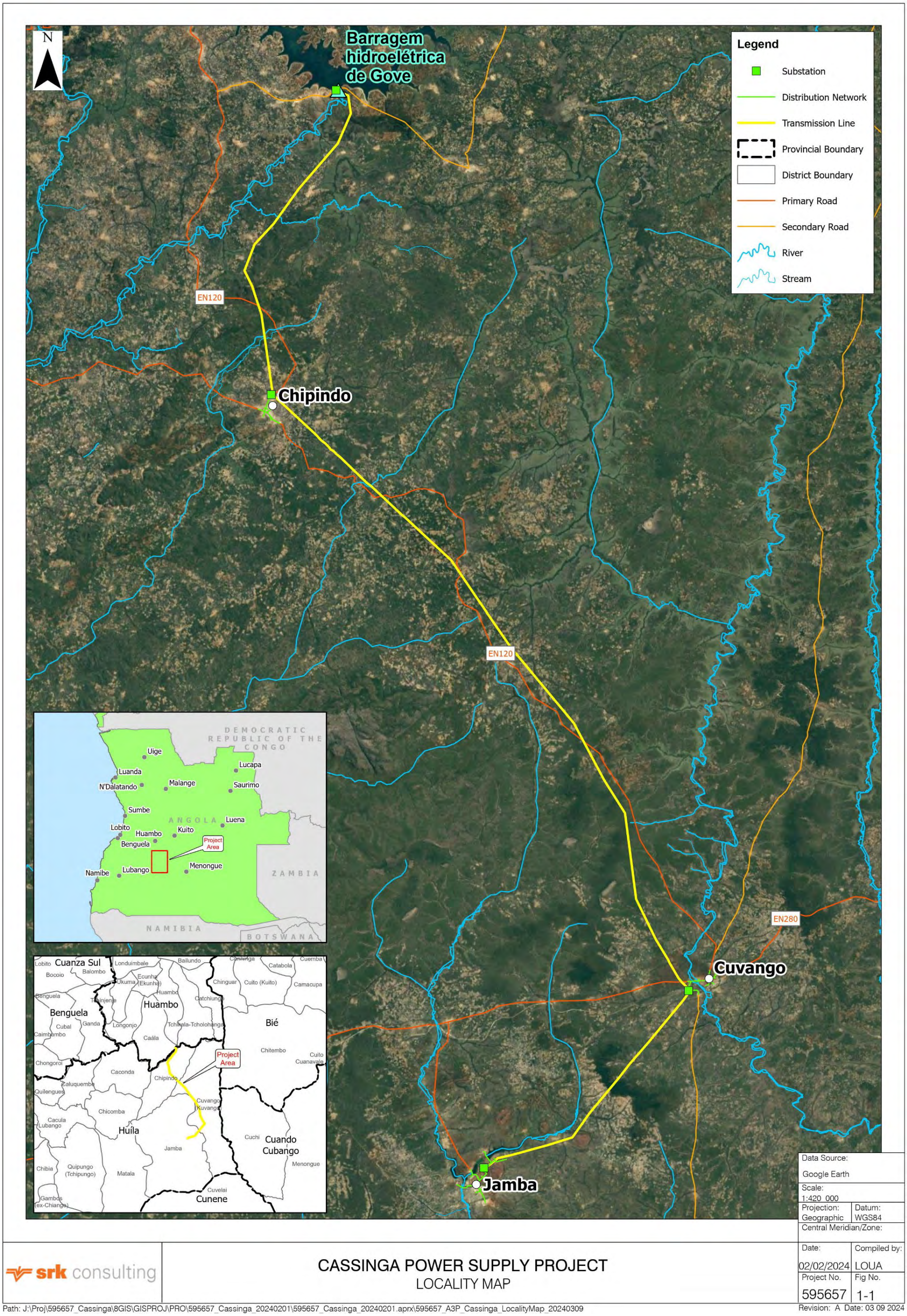


Figure 1-1: Project site locality

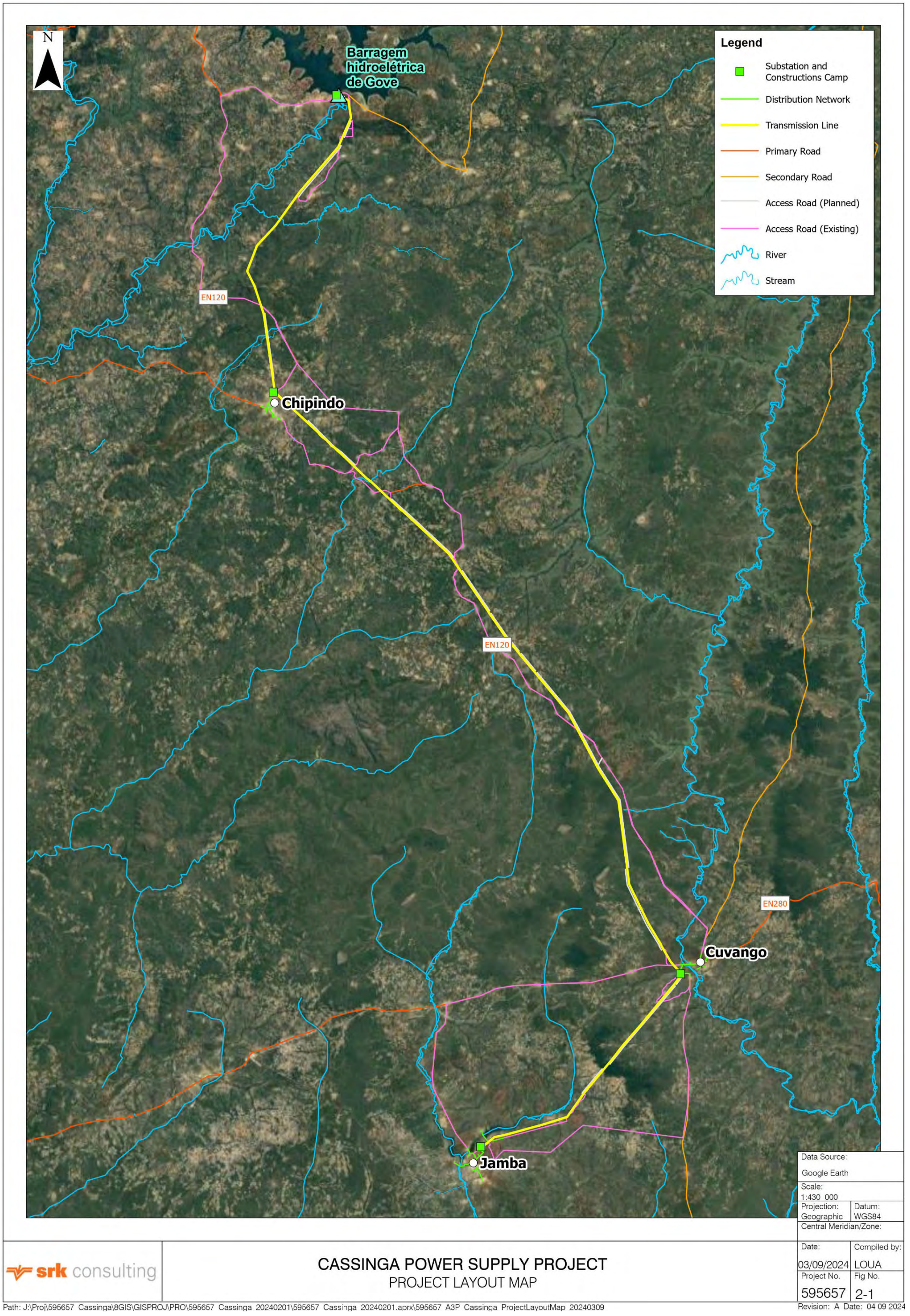


Figure 1-2: Project layout

1.2 The project proponent

Pak Yatirim has been appointed as the engineering, procurement, and construction (EPC) contractor for the project. As EPC contractor, PAK Yatirim will hand the project over to Rede Nacional de Transporte de Electricidade (RNT) once construction is completed.

RNT is Angola's national electricity transmission network provider. RNT primarily focuses on electricity transmission. Its core objective is to transport electrical energy through the operation of the National Transmission Network. The network includes components such as the Very High Voltage (VHV) grid, interconnection lines, national dispatch facilities, and related assets and rights.

RNT will be the implementing agent mandated by MINEA and will be responsible for resettlement processes (if required). They will be assisted by the Ministry of Agriculture and Forestry (MINAGRIF) as well as the Ministry of Construction and Housing (MINOPOH) taking account of the multiple housing projects in Angola.

1.3 Land requirement for the project

The anticipated maximum land take for the project is around 1 782.7 ha during the construction phase, and a maximum of around 247 ha during the operation phase (Table 1-1). It is important to note that not all construction areas will be required at the same time. The impact of the construction works will be progressive as this sequential work is completed on consecutive linear progress.

Although high-level desktop and site screening informed the OHL route alignment and substation locations to avoid sensitive environmental and social features, physical and economic displacement is not completely avoidable.

Table 1-1: Anticipated land requirement for the project

Component	Features	Land required
Temporary		
OHL (HV) Right of Way (including footprint corridor, temporary laydown and assembly areas, and construction camps)	170 km of OHL X 100 m wide corridor.	1 700 ha
MV/LV Line Right of Way (including footprint corridor, temporary laydown and assembly areas, and construction camps)	17.5 km of MV/LV Line X 36 m wide corridor.	63 ha
Access roads	Access to Right of Way. The Project will mainly follow existing roads. The new planned access roads will fall within the OHL HV 100 m corridor	1.7 ha
Jamba Substation	3 ha + construction camp (3 ha)	6 ha
Chipindo Substation	3 ha + construction camp (3 ha)	6 ha
Cuvango Substation	3 ha + construction camp (3 ha)	6 ha
Permanent		
Permanent towers (HV OHL)	425 towers (80 m X 50 m per tower)	204 ha
Permanent poles (MV/LV Line)	Negligible	Negligible
Maintenance road for HV OHL	170 km of OHL X 4 m wide	68 ha
Jamba Substation	Substation area	3 ha
Chipindo Substation	Substation area	3 ha
Cuvango Substation	Substation area	3 ha

1.4 Estimated physical and economic displacement

1.4.1 Site reconnaissance

The initial site visit in February 2024 revealed that physical displacement might not be necessary for the project, mainly due to the sparse population in the area. These observations suggest that by changing the OHL route and adjusting pylon placement, physical displacement can be eliminated.

It was however observed that a number of pylons may be placed inside maize fields, which will result in economic displacement. It is important to consider that certain crops, like cassava, require around a year to reach harvest readiness. Farmers should still be compensated for the loss, even if the plants are not fully mature. Farming activities can be practiced under the powerline during operations, as long as safe clearances and building restrictions are followed.

However, the reconnaissance site visit was limited in its extent and detail and was used mainly to identify key considerations for the subsequent studies.

1.4.2 Spatial analysis

In order to determine a preliminary quantification of the houses / structures, as well as agricultural fields that may be affected by the proposed project, a desktop spatial assessment was undertaken. In this regard, SRK employed Geographic Information Systems (GIS) and GoogleEarth Imagery, as follows:

- Buffer sizes were determined: 100m for the 220kV HV, 36m for the MV60 kV, and 3ha for the substations. The sizes of the buffers were informed by the tower height (47m) for HV and pole height (18m) for MV/LV, instead of the legally defined buffer of 30 m and 12 m on either side, respectively. This conservative approach was selected because the locations of the pylons are unknown at the current level of engineering detail. The conservative buffer would ensure a safe distance from people or structures in the event of a pylon failure;
- Performed a visual interpretation of the images in the buffer areas and mapped the classified farmland boundaries and the structures/houses. The farmland was classified into two categories: “cultivated” and “fallow”[1]; and
- The boundaries of the farmland polygons and building/house structures as single points were digitised to create a vector layer.

The results of the GIS exercise are provided in Table 1-2 to Table 1-4 below. It also includes a set of ten maps showing the buffer zone intersects.

Table 1-2 shows that there are potentially 699 hectares of farmland and 1,518 houses or structures that may be affected in total. The houses / structures affected will also occupy some land, but this will have to be assessed using higher resolution imagery, and once more information is available.

Table 1-2: Preliminary quantification of total affected structures and farmland

Class	Area (ha)	House/Structure Points
Cultivated	172,11	n/a
Fallow	526.56	n/a
Building structures including houses		1,518
Total	**698.67**	**1,518**

[1] "Cultivated" land is land that seems to be active agricultural land and "fallow" land is land previously cultivated but does not seem to be active agricultural land.

Table 1-3 presents only the areas and structures potentially affected by the substations and MV lines around the Grove Hydro Dam and the Chipindo, Cuvango and Jamba communities. It shows that there will be no impact at the Gove Hydro Dam. At Chipindo, there could be 0.33 ha of land and 342 buildings affected. At Cuvango, there could be 235.28 ha of land and 432 buildings affected, with 0.95 ha of land and 326 buildings affected at Jamba.

Table 1-3: Preliminary quantification of affected structures at Chipindo, Cuvango and Jamba

Area	Class	Substation (3ha buffer)		MV (18 m buffer)	
		Area (ha)	House / Structure	Area (ha)	House / Structure
Gove Hydro Dam	Cultivated	-	-	-	-
	Fallow	-	-	-	-
	Buildings	-	-	-	-
	Total	0	0	0	0
Chipindo	Cultivated	-	-	0.26	-
	Fallow	-	-	0.07	-
	Buildings	-	7	-	335
	Total	0	7	0.33	335
Cuvango	Cultivated	-	-	0.51	-
	Fallow	-	-	234.77	-
	Buildings	0	3		429
	Total	0	3	235.28	429
Jamba	Cultivated	-	-	0.90-	
	Fallow	-	-	0.05-	
	Buildings	-	2		-
	Total	0	2	0.95-	324
TOTAL		**0**	**12**	**236.56**	**1088**

Table 1-4 presents only the areas and structures affected by the HV lines. It shows that a total of 462.57 ha of farmland and 418 houses / structures could potentially be affected by the HV line and its 47 m buffer.

Table 1-4: Preliminary quantification of affected structures from the HV line

Area	Class	Area (ha)	House/Structure
Gove Hydro Dam to Chipindo	Cultivated	67.42	-
	Fallow	46.44	-
	Buildings	-	122
	Total	114.14	122
Chipindo to Cuvango	Cultivated	48.13	-
	Fallow	234.27	-
	Buildings		158
	Total	282.40	158
Cuvango to Jamba	Cultivated	54.61	-
	Fallow	10.96	-
	Buildings		138
	Total	65.57	138
Total		**462.57**	**418**

Once the pylon positions are known, the potentially affected areas and structures will be significantly reduced. This is because the buffers will only need to be applied to the pylon areas, rather than the

entire length of the MV and HV lines. The spatial analysis exercise will also help to inform where pylons could be placed to minimise the potential impact on land users.

A set of ten maps was created to show the buffer intersects as described above. On each map, the number of structures and area of farmland potentially affected is indicated. Refer to Figure 1-5 for an overview map and to Appendix A for the full set.

1.4.3 Access roads

Existing roads will be used as access roads for construction and operation phases (although less frequently for the latter). Since these roads will be upgraded, but not expanded / widened, there might be a minor impact on roadside activities such as agriculture and roadside stalls (examples of roadside agricultural and economic activities are shown in Figure 1-3 and Figure 1-4).

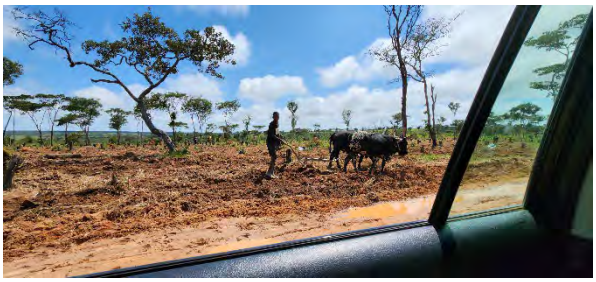


Figure 1-3: Example of roadside preparation of land for crop planting (road in foreground)

Figure 1-4: Example of roadside movable economic activity (road in foreground)

As a safety precaution, a 2 m-buffer on either side will be required for these roads, since large vehicles might need to turn, and laydown areas might be required in both the construction phase and when maintenance activities are being undertaken once the OHL is operational.

Due to the temporary or movable nature of roadside retail stalls and activities, these activities were not quantified as part of Section 1.4.2 (although all structures and agricultural land within the HV and MV corridors were identified and counted, as well as the buffer area around the substations). Therefore, once the household census, asset inventories and valuations (described in further detail in Sections 5.6 and 5.7) are undertaken for the RAP/LRP, the presence of any activity within 2 m of the access roads should also be recorded. Furthermore, the feasibility of moving structures back by a few metres should be assessed and discussed with owners to avoid any economic displacement.

As for crop farming, more detailed valuations might be required since alternative land would have to be sought or compensation would have to be offered. Again, the existing agricultural activities could be intensified on the same piece of land if only a small portion thereof is to be affected by the buffer area, to avoid significant economic displacement.

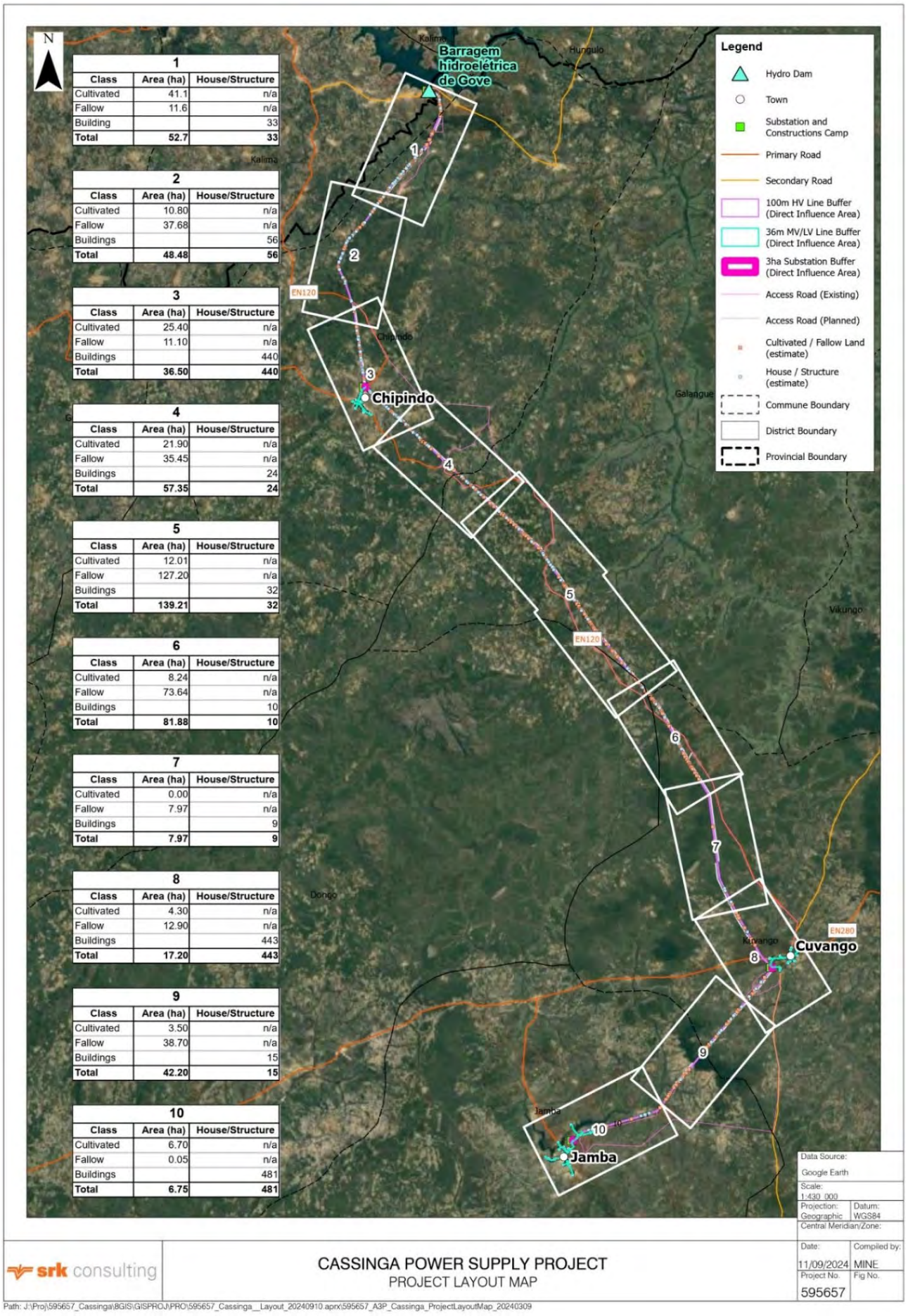


Figure 1-5: Overview map

2 Resettlement instruments

The planning of resettlement activities is an integral part of preparation for Bank-assisted projects that cause involuntary resettlement, which Cassinga is. The type of resettlement instrument (resettlement plan, abbreviated resettlement plan, resettlement policy framework, or process framework) is based on the scope of the project and the level of planning detail required (World Bank (a), 2001).

2.1 Framework

The purpose of the policy framework (referred to as a Resettlement Policy Framework (RPF) or LARF); is to clarify resettlement principles, organisational arrangements, and design criteria to be applied during project implementation. It covers the following:

- A brief description of the project and components for which land acquisition and resettlement are required:
  - Principles and objectives governing resettlement preparation and implementation;
  - A description of the process for preparing and approving resettlement plans;
  - Estimated population displacement and likely categories of displaced persons, to the extent feasible;
  - Eligibility criteria for defining various categories of displaced persons;
  - A legal framework reviewing the fit between country legislation and lender requirements and measures proposed to bridge any gaps between them;
  - Methods of valuing affected assets;
  - Organisational procedures for delivery of entitlements,
  - A description of the implementation process, linking resettlement implementation to civil works;
  - A description of grievance redress mechanisms;
  - A description of the arrangements for funding resettlement, including the preparation and review of cost estimates, the flow of funds, and contingency arrangements;
  - A description of mechanisms for consultations with, and participation of, displaced persons in planning, implementation, and monitoring; and
  - Arrangements for monitoring by the implementing agency and, if required, by independent monitors.

A RPF or LARF is particularly useful in pre-feasibility and feasibility project stages, to help estimate the timeframe and cost of land acquisition and resettlement (Reddy, Smyth, & Steyn, 2015).

2.2 Resettlement and livelihood plans

Should it be determined that the project will cause physical and/or economic displacement, Resettlement Action Plans (RAPs) and/or Livelihood Restoration Plans (LRPs) should follow the PRF or LARF. Where there is physical and economic displacement, a RAP and LRP will be required. Where there is only economic displacement, an LRP must be compiled.

While most of the substance of RAPs and LRPs are similar, the focus of each is different (IFC, 2023):

- RAPs focus on physical planning, resettlement sites, and housing and amenities; and
- LRPs focus on livelihoods impacts and livelihoods restoration for the affected persons.

If a RAP and/or LRP is required, it must include baseline census and socioeconomic survey information; specific compensation rates and standards; policy entitlements related to any additional impacts identified through the census or survey; description of resettlement sites and programs for improvement or restoration of livelihoods and standards of living; implementation schedule for resettlement activities; and detailed cost estimate (World Bank (a), 2001).

Most projects that entail physical displacement also cause economic displacement. In such cases, the RAP should address livelihood restoration as well and should meet the objectives for both a RAP and an LRP.

2.3 Stakeholder engagement

A Stakeholder Engagement Plan (SEP) was prepared for the ESIA Process (SRK (b), 2024). Figure 2-1 shows how stakeholder engagement occurs at different stages of the project life cycle, including (where required) during the resettlement process. The SEP will be a dynamic document updated as the project progresses through its phases.

A Project Affected People (PAP) are individuals or groups who experience direct economic and social impacts due to a project. These impacts can result from involuntary land acquisition, leading to relocation, loss of shelter, loss of assets, or restricted access to legally designated parks and protected areas including culturally significant sites.

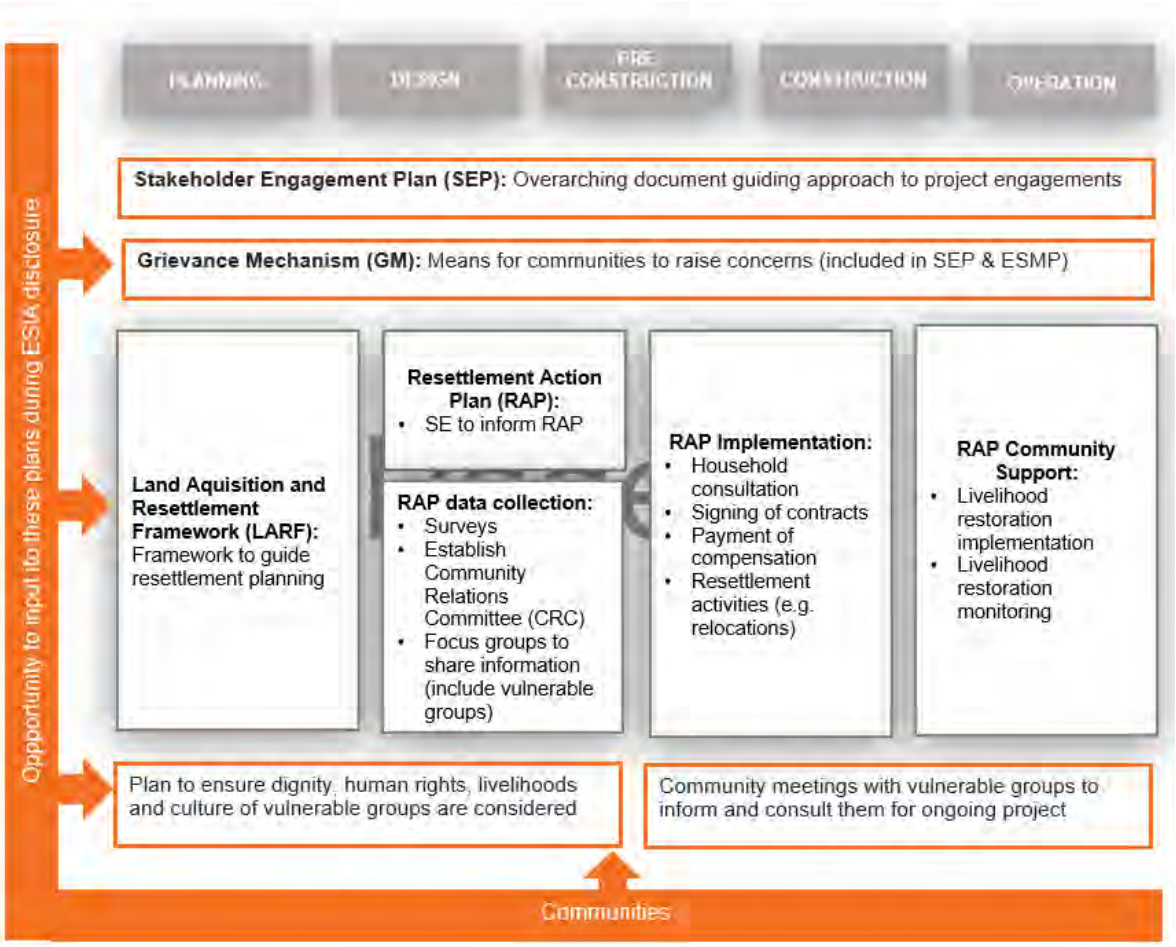


Figure 2-1: Stakeholder engagement components

2.4 Roles and responsibilities

For the Cassinga project it is proposed that an external resettlement specialist be appointed to coordinate the planning and implementation activities. RNT will keep ownership of the process while receiving guidance from the appointed specialist and should maintain close communication to ensure continued support to the PAPs and other stakeholders. The IFC defines stakeholders as: "*persons or groups who are directly or indirectly affected by a project, as well as those who may have an interest in a project and/or the ability to influence its outcomes, either positively or negatively"* (IFC, 2007).

Figure 2-2 provides an overview of the core role players of the resettlement process (orange lines) as well as the grievance process for all other matters not related to resettlement (green lines). The roles and responsibilities are defined in Table 2-1. The detailed roles and responsibilities associated with the grievance system are detailed in the SEP (SRK (b), 2024).

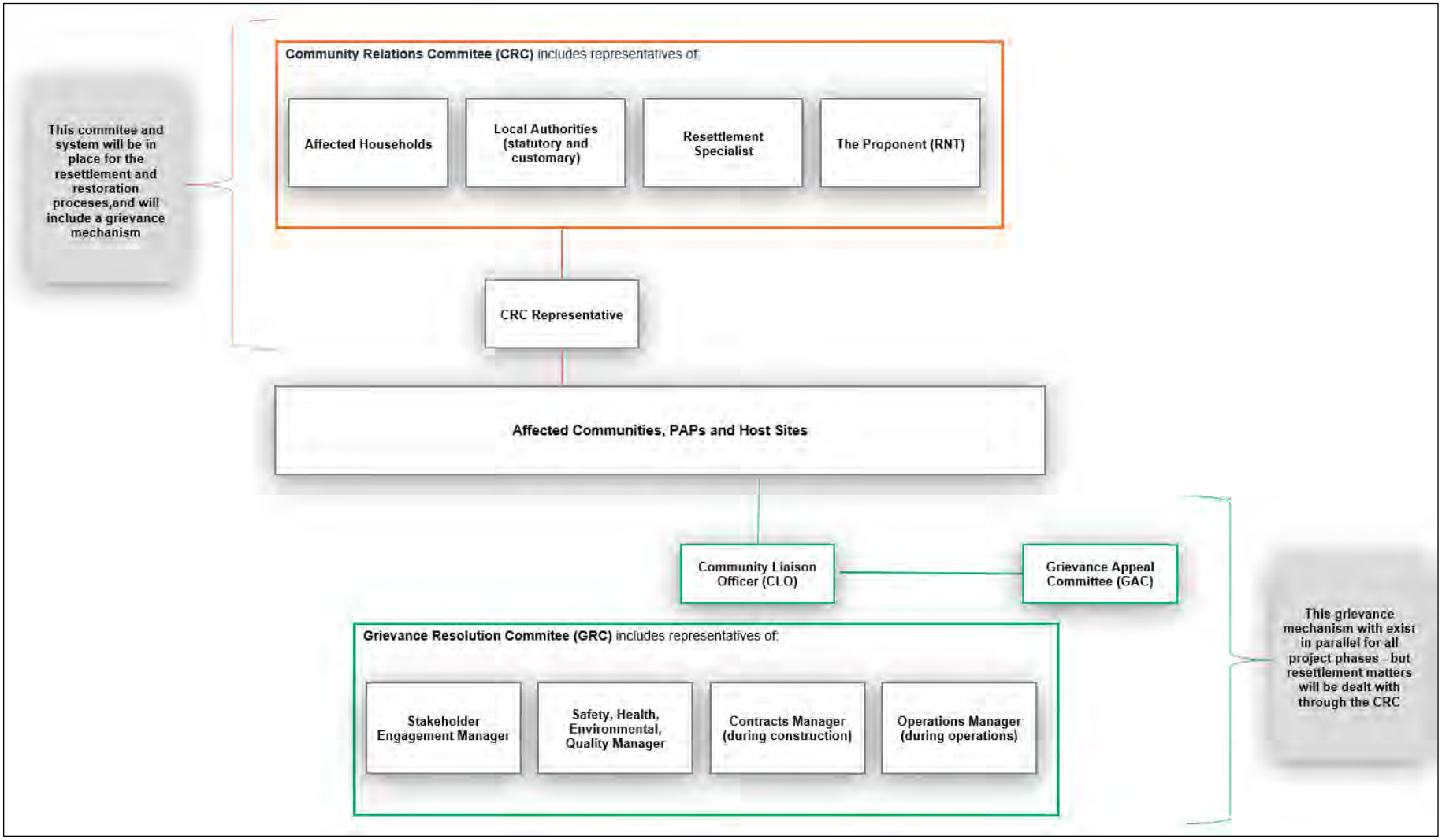


Figure 2-2: Organogram of role players in the resettlement process and grievance system

Table 2-1: Stakeholder responsibilities in the resettlement process

Stakeholder	Responsibility
National, provincial[2] and local government	• Overseeing the resettlement implementation • Providing guidance in terms of legislation and procedures • Coordinate and supervise environment assessment studies • Government-owned land surveying • Drafting/reviewing/implementing Memorandum of Understandings (MoUs) • Sensitising affected and host communities • Provision of alternative land and resettlement village(s) • Acquisition of land • Preparing land certificates of occupancy • Support livelihood restoration projects implemented • Provide necessary infrastructure in relocation areas • Supporting, disseminating, and monitoring the cut-off-date for compensation • Monitoring and evaluation • Participate in resolving grievances
RNT Social Development Manager, working with an independent consultancy and sub-contractors	• Coordinating the resettlement implementation phase • Development of a new resettlement village(s), which includes contracting the services of engineers, architects, and builders • Basic social infrastructure government hand-over • Payment of compensation • Relocation of households • Demolition • Assist the government with providing alternative land and resettlement village(s) • Ensuring the security of tenure for resettled households • Monitoring and evaluation
Community Relations Committees (CRCs)	• Continuous stakeholder engagement • Disclosure of compensation rates and PAP-level entitlements • Monitoring and evaluation
Independent consultancy	• Assist RNT with the relocation of households for transparency • Conduct additional specialist studies as required either by the IFC or the national government • Implement Livelihood Restoration Plans (LRPs)
Affected communities, PAPs and host site(s)	• Continuous stakeholder engagement • Participate in the execution of the resettlement implementation • Participate in the execution of LRPs • Salving materials • Relocation • Lodging grievances through a Grievance Mechanism
Non-Governmental Organisations (NGOs) and Community-Based Organisations (CBOs)	• Participate in the execution of resettlement implementation • Providing guidance in terms of legislation and procedures • Monitoring and evaluation

2.5 Resettlement principles and objectives

The overarching principle adopted for the Project is to avoid or minimise negative impacts and losses brought about by involuntary displacement and resettlement. Where resettlement is unavoidable,

[2] Provincial Governor (PG) of Huíla Province

planning has to ensure that PAPs are compensated fully and equitably and have the opportunity to restore or improve their living standards and means of living[3].

IFC PS 5 notes: " […] unless properly managed, involuntary resettlement may result in long-term hardship and impoverishment for the affected communities and persons, as well as environmental damage and adverse socio-economic impacts in areas to which they have been displaced. For these reasons, involuntary resettlement should be avoided. However, where involuntary resettlement is unavoidable, it should be minimised and measures to mitigate adverse impacts on displaced persons and host communities should be carefully planned and implemented" (IFC, 2012: p. 1).

In implementing the RAP, RNT commits to adopting the resettlement principles shown in Figure 2-3:

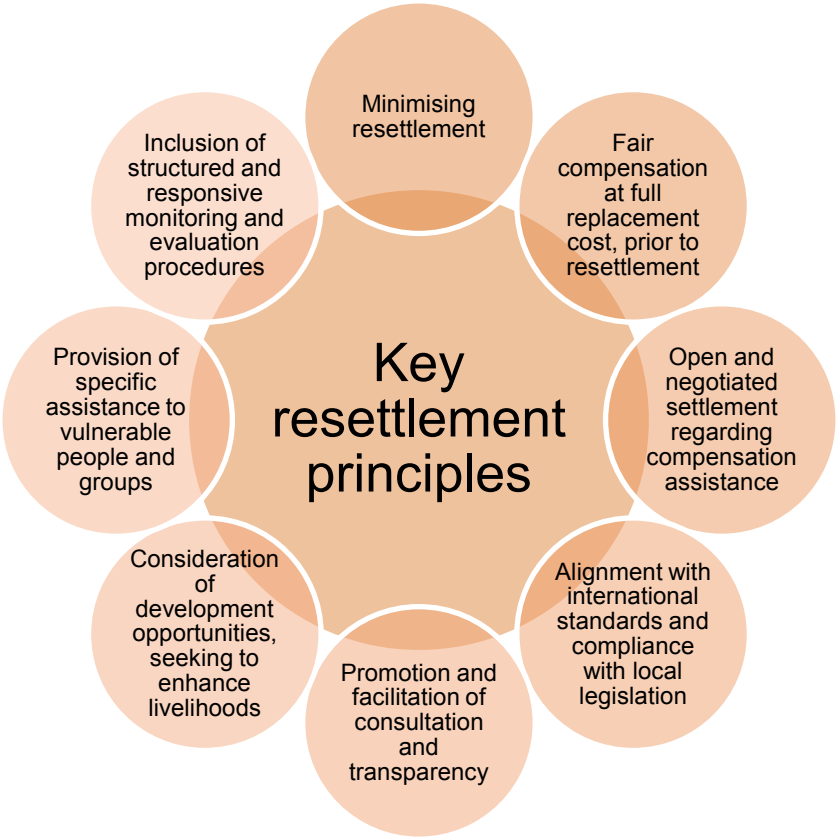


Figure 2-3: Resettlement principles

To adhere to the principles outlined in Figure 2-3, RNT needs to commit to the following resettlement objectives:

- Identifying and mitigating adverse social and/or economic impacts from land acquisition or restrictions on PAP;
- Identifying project components that trigger resettlement;
- Identifying gaps between the local resettlement legislation and the requirements of the IFC PSs;
- Describing the socio-economic baseline conditions of the PAPs and determining resettlement eligibility, entitlements and future monitoring and evaluation requirements;
- Identifying and carefully recording people and assets that will be affected by the project;

[3] RNT will consider technical and design options to reduce displacement and the need for resettlement. This will include both noise and dust mitigation, as well as practical planning.

- Identifying potentially vulnerable households and individuals;
- Developing a detailed compensation framework and PAP-level entitlement matrix for the loss of assets at replacement cost. The matrix should define who is eligible for compensation, resettlement assistance and/or livelihood restoration and the type of compensation offered;
- Improving or restoring the livelihoods and standards of living of PAPs based on a detailed livelihood restoration strategy;
- Providing and securing replacement land and improvement of tenure arrangements;
- Improving PAP living conditions by providing adequate replacement housing with security of tenure at new resettlement sites;
- Giving specific attention to PAPs that are vulnerable due to age, gender, health, religious and ethnic affiliation, and cultural characteristics;
- Ensuring that all resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected. This will include implementing an SEP and Grievance Mechanism to ensure that PAPs have access to redress for legitimate claims;
- Defining organisational arrangements for the implementation phase of a RAP; and
- Developing a detailed resettlement implementation budget and timeline.

3 Socio-economic environment

A full Socio-Economic Impact Assessment (SEIA) has been undertaken by (SRK (a), 2024). This section provides a summary of the social environment as described therein.

3.1 Administrative areas

The project is proposed in the Huíla Province. The three communities affected are Cuvango, Jamba and Chipindo which is spatially represented in Figure 3-1.

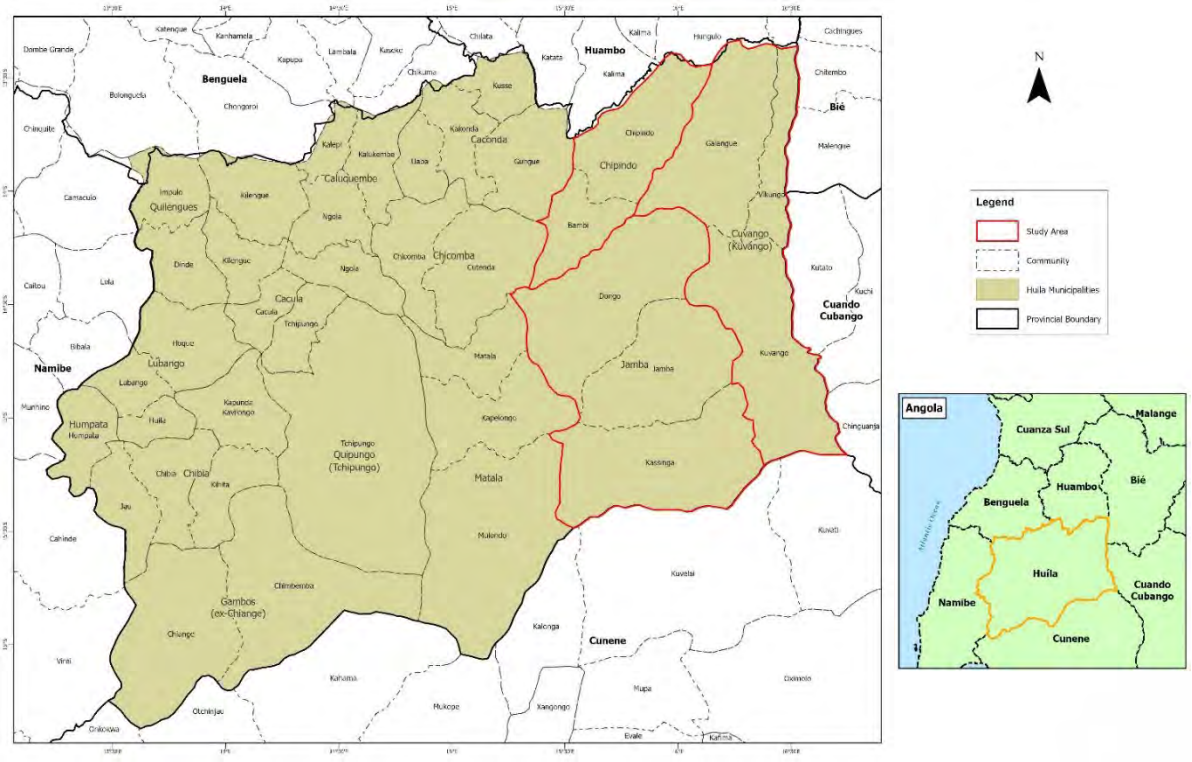


Figure 3-1: Map of the municipalities and communities of Huíla province

3.2 Results of the socio-economic survey (local context)

As part of the SEIA (SRK (a), 2024), 16 villages/communities in the municipalities of Chipindo, Cuvango and Jamba were visited and surveyed. Social facilities as well as sacred sites such as cemeteries, the ruins of the Sangueve Catholic Mission in Chipindo, and water lines located near the villages/communities surveyed were also visited. Key Informant Interviews (KIIs) were conducted with local leaders (sobas) to get information on such as the number of households in each village/community.

Most villages use subsistence methods for farming and are involved in informal commerce and beekeeping. Instances of artisanal gold mining and some river fishing were also observed across the three municipalities, with some local variation.

The source of income for the majority of the population comes from the sale of field produce. Households with between 38 000 and 180 000 Angolan Kwanza (AOA or symbol Kz) per month were recorded. In municipal centres occupations such as civil servants, schools, health posts are additional sources of income. Former war combatants and traditional authorities also receive government subsidies.

The staple crops are maize and beans, and others include sweet potatoes, reindeer potatoes, cassava, cabbage, onions, tomatoes, yams, and peanuts (ginguba).

The rural land used by the community for housing and agriculture is theirs by way of inheritance and “usufruct” (i.e., they have land ownership rights, but they are mostly informal) and in some cases, the rights to use the land for agriculture and housing are granted by the traditional authorities of the area (*sobas*).

Infrastructure and services are inadequate in most villages. There is no electricity supply, with the exception of the with the exception of the towns within the municipal centres, which are supplied by thermal generators that provide electricity six hours a day (from 6 pm to 12 pm). Most families use wood and charcoal for cooking and solar panel lanterns to light up at night. For most of the villages, except the municipal centres, water supply comes from hand-dug wells (*cacimbas*) and nearby streams. In the seat of the municipality of Jamba, households have home water connections as part of a government project, Water for All. All the villages and villages visited have at least one primary school, some of which use spaces in the local churches as classrooms.

There is no public transport. There are private motorbikes that transport people and goods, but walking is the most common way to get to the fields and villages.

There are vulnerable groups, i.e., a group of people belonging to a minority who, for various reasons, have reduced or denied access, participation and/or opportunities to universal goods and services available to the rest of the population. This includes people with disabilities and the non-Bantu Khoisan ethnic group. The Khoisan are one of the primitive groups in Africa who are at serious risk of extinction in terms of their socio-historical and anthropological aspects. They are traditionally hunter-gatherers and nomads. In Jamba and Cuvango, two of the three municipalities where the project will be carried out, some Khoisan households occasionally live in the localities of Kassindi and Vilombelo (in the municipality of Cuvango) and in the commune of Cassinga, in the villages of Tchamutete and Mutiapulo, 64 km from this commune (in the municipality of Jamba).

It is likely that people in villages in the project area will continue to live as they do now unless there is investment in infrastructure and services (roads) and unless employment opportunities arise.

4 Legislative and regulatory framework

The following section considers Angolan legislation which regulates and informs resettlement and resettlement planning, as well as provides the applicable IFC PSs, with a gap analysis between the two.

4.1 Angolan legal framework

Inputs on this section were sourced from: (RNT, 2019), (Aurecon, 2020), (ERM, 2019) (de Cruz, 2021) (Walmsley, B & Hussleman, S, 2020) and (MINEA, 2022).

4.1.1 Constitution of Angola (2010)

The 2010 Constitution of the Republic of Angola states:

- Land which is by origin the property of the state, may be transferred to individuals or corporate bodies, with a view to its rational and full use, under the terms of the Constitution and the law;
- Access to and use of land by local communities shall be recognised by law; and
- The provisions contained in the previous points do not compromise the possibility of expropriation for public use, with just compensation, under the terms of the law.

4.1.2 Land Law (2004)

The primary legislative instrument for land rights is the 2004 Land Law (*Lei de Terras de Angola*–Law No. 09/04 dated 09 November 2004). It:

- Establishes fundamental land rights principles;
- Categorises state land as conferrable and non-conferrable4;
- Defines land rights and interests in land;
- Provides that the State and local authorities may expropriate for public utility purposes;
- Establishes that expropriation extinguishes the land rights established on the land and determines its definitive transfer to state assets or local authorities, the latter being responsible for properly compensating the holder of land rights;
- States that the land of rural communities may be expropriated for public utility or be subject to requisition through fair compensation; and
- Establishes a Right of Way (*faixa confinante*) of 30 m safety distance on either side of an electric transmission line (art.27).

4.1.3 Territorial and Urban Planning Law (2004)

This Act governs both rural and urban land and requires territorial development plans at central, provincial, and municipal levels. The National Assembly is charged with approving high-level strategic plans. The provincial government officials develop their provincial level plans within the national framework. Municipal level plans (or city level management) plans follow from the provincial plans and are used for implementation.

[4] Conferrable Land. Such land can have its property rights transmitted or constituted in accordance to use, while respecting its protection, environmental issues, and sustainable exploitation. Non-Conferrable Land. Such land cannot be transmitted for private use because of its public use (roads, airports, schools, hospitals, etc.).

4.1.4 The Presidential Decree, National Policy for Land Concession (2016)

The Presidential Decree No. 117/16 of 30 May 2016 establishes the rules for resettlement and rehousing for public projects but can be applicable to other projects. This Regulation aims to define the rules, procedures and criteria that should govern the action of the organs of public administration and autonomous state in the resettlement and rehousing process for a group of people living in a given territory, households, residents affected by redevelopment and conversion of urban areas, in accordance with the principles governing public administration, without prejudice to the pursuit of public interest and the protection of rights and interests of citizens (Walmsley, B & Hussleman, S, 2020).

4.1.5 Presidential Decision No. 14/18 on Interministerial Commission (2018)

Presidential Decision No. 14/18 of 19 February creates the Interministerial Commission, whose objective is to promote the registration of Rural Land in favour of Local Communities. The Commission, co-ordinated by the Minister of State and Chief of the President's Civil House of the Republic, is responsible for surveying these lands, analysing their use, and promoting the granting of land rights. In particular, it aims to survey rural or community land in rural communities; analyse the effective use of rural lands; promote the rapid recognition and registration of community-owned land and buildings under the customary domain; promote the granting of land rights to land parcels' holders that meet the legal requirements; and create conditions so that the competent institutions can continue work after the term of validity of the Interministerial Commission.

4.1.6 General Regulation for Land Concession (2007)

Decree no. 58/07, of 13 July, approves the General Regulation for Land Concession in Angola *"Regulamento Geral de Concessao de Terrenos"*. This decree establishes the basic framework for ownership, concession, and use of agricultural land in Angola. It consists of seven chapters which define all the issues related to land legislation, such as general provisions, land classification, licensing, transmission and rescission of land use rights, registration, and administration powers.

4.1.7 Legal Regime of Land Registry (2021)

The Legal Regime of Land Registry *"Sobre o Regime Jurídico do Cadastro Predial"* (Law No. 23/21 dated October 2021) was promulgated. It aims to regulate the characterisation and identification of land and the existing buildings in the national territory.

The Law no. 23/21 establishes the administrative record of the data which characterises and identifies the real estate existent in Angolan territory. It permits the correct identification and localisation of the real estate, and the existent rights over it. It will maintain The Land Register, cadastral information and a land matrix which will complement each other.

Real Estate will be described in the Land Register according to its physical, economic, and legal features, namely its value, possible functions and types of use, quality of construction, and holders of rights over it.

4.1.8 Expropriation for Public Purpose Act (2021)

The Expropriation for Public Purpose Act (Law No 1/21 dated January 2021). It enshrines the principles and establishes the rules that the proper Central Government bodies must abide by when expropriating real property and any associated rights for public purposes.

The Act does not apply to compulsory eviction, nationalisation, confiscation, easements, re-homing, civil requisition, expropriation for private purposes, temporary occupation of buildings, destruction for public purposes and revocation of concessions.

Real property and any associated rights can be expropriated for the public purposes listed in the Act against fair and prompt compensation to be calculated pursuant to the Act, but only the property strictly indispensable to achieve the relevant public purpose can be expropriated.

Only the Head of Government can issue the Declaration of Public Purpose, which can be approved at the request of any Central Government body. Aside from the State, Local Government, and public-law and private-law corporate persons can also benefit from expropriations, provided that there is a duly justified public purpose.

Save for the Urgent Expropriation instances specifically set forth in the Act, it enshrines the primacy of acquisition through private-law mechanisms, providing for a negotiation process between the Expropriating Entity and the relevant citizen or private-law entity.

4.1.9 Decree on Regulation for the licencing and Security of Electric Facilities (2004)

Decree no. 41/04 Regulation for the Licensing and Security of Electric Facilities "*Regulamento para o Licenciamento e Segurança de Instalaçoes eléctricas*", 2004.

The law requires the project proponent to compensate the owners, tenants and beneficial owners whenever the establishment of power lines results in losses. Losses include the following:

- *Immediate losses*: damage to crops, damage caused by the establishment of access roads, damage caused by depositing materials, and the cutting of trees required for the execution of the works;
- *Permanent losses*: damage to forests, aesthetic impacts, loss of productivity of a portion of the soil, decreasing the possibility of building, and radio disturbances (i.e., electromagnetic fields); and
- *Future losses*: arising from the operation of the line and the transformation of rural land, near settlements, or roads on lands subject to urbanisation.

4.1.10 Land tenure / rights

The land Law No. 9/04 recognises different land rights applicable to State Land of the Private Domain. These are described in Table 4-1. In all aspects of land holding in Angola, men and women have equal rights.

Table 4-1: Land tenure in Angola (EPAL, 2019)

Tenure Type	Provision
Ownership	The Land Law authorises private rights to urban land that have the quality of freehold title under which the landholder has the perpetual right of occupation and use, transfer, mortgage, and sale. However, purchase and sale of urban land must be by public auction, with prices fixed by price indices and municipal rules. Private property rights can only be transferred with the consent of the local authority, and only after five years of effective use.
Useful customary domain	Rural communities, i.e., groups of neighbouring families that have collective rights of possession and administration and use the land in a useful and effective manner according to custom, can obtain a perpetual right of Useful Customary Domain. Such a right cannot be transferred or seized unless by foreclosed mortgage, or if subjected to a concession.
Useful civil domain	Useful Civil Domain over rural and urban land is granted by means of a concession contract or lease and is a perpetual right that may be mortgaged.
Surface rights	Surface Rights to rural and urban land are granted to individuals and entities for the construction of buildings or to make or maintain plantations. Provisionally granted for 5-years, they can be extended to 70-years.
Temporary occupation rights	Temporary Occupation Rights are granted on rural and urban land for up to one year, subject to renewal, for the purposes of construction, mining, scientific investigation, or other permitted activities

Tenure Type	Provision
Customary Rights and Former Landowners	Most of the Angolan land is held under Customary Law that asserts rights based on principles such as, the first clearer of the land, inheritance, and informal transaction. Some former landholders, such as Portuguese holders of large farms, claim de facto rights based on their former ownership and continued occupancy. In some areas, local government classifies the rights of these farmers as akin to perpetual leaseholds.

All formal land grants and transfers are subject to useful and effective use, and the state cannot grant a household an area greater than one-third of that for which it has the capacity to work, and the granted rights are liable to forfeit if the land is not used for the purpose intended for three consecutive years or six non-consecutive years.

Inheritance of land through customary processes is the main source of rural land in most communities, followed by arrangements for leasing, borrowing, and sharecropping. Everyone who is deemed trustworthy is entitled to have the use of a parcel of land, its size and location determined by the traditional leader (soba5) based on household size and planned use.

In urban and peri-urban areas, land access is more dependent on its value. Individuals and households often begin by sharecropping, then renting and finally purchasing their land on the informal market. In the more populated areas, bairro commissioners and residential committees are also a source of land access. Land requests are dealt by local government. i.e. for this project RNT is negotiating with administration of Jamba, Chipindo and Cuvango land rights for the substations. These administrations report to PG Huíla.

4.1.11 Customary law

According to EPAL (EPAL, 2019) most people are unfamiliar with land and property legislation and most land users remain without documented proof of tenure or entitlement. Customary law still governs issues such as land access, the control of land and its production, land transfer and land use. Customary law principles and practices can be highly localised, but most are applied on the basis that land is owned by a universal deity, the ancestors of living occupants, the community, or by individuals within a community, and are administered for the benefit of the community by the traditional leader or village elder (soba).

4.1.12 Overall perception of property rights

A commonly applied metric in determining financial stability is the Index of Economic Freedom[6], a sub-component of which is the Property Rights Index, which reflects:

- The degree to which a nation's laws protect private property rights;
- The degree to which the government enforces those laws;
- The likelihood that private property will be expropriated;
- The independence of the judiciary;
- The existence of a judiciary free from corruption; and,
- The ability of individuals and businesses to enforce contracts.

[5] Nowadays, Sobas are more than traditional village heads. They represent administrative interests and are salaried for doing so.

[6] A series of 10 economic measurements created by the Heritage Foundation and the Wall Street Journal

The IEF scores countries from 0 to 100, with the 2024 results showing Singapore and North Korea respectively top and bottom of the 176 countries for which the index is calculated. With a score of 54.3 the Republic of Angola is ranked 19th in Africa, between South Africa (18th) and Kenya (20th).

The United Nations classifies both economic freedom in Angola as 'Mostly Unfree' and property rights 'Repressed' (Heritage Foundation, 2024).

4.2 International guidelines

4.2.1 IFC Performance Standard 5

IFC PS5 on Land Acquisition and Involuntary Resettlement recognises that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons that use this land. Involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) because of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use, that result in physical or economic displacement. This occurs in cases of: (i) lawful expropriation or temporary or permanent restrictions on land use, and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail.

Performance Standard 5 requires the company (in this case, the Utility–RNT) or other responsible parties to specify the procedures it will follow and the actions it will implement to resettle and compensate affected people and communities properly. The LARF is therefore a company's (for Cassinga project–RNT's) commitment to financial institutions, and to the affected people, that it will meet its obligations arising from involuntary resettlement.

4.2.2 IFC Good Practice Handbook: Land Acquisition and Involuntary Resettlement

The IFC Good Practice Handbook: Land Acquisition and Involuntary Resettlement (IFC, 2023)) provides a framework and methodology for planning, baseline data collection, implementation, monitoring and evaluation of the entire resettlement and livelihood restoration process. The handbook's key focus is keeping resettlement simple, by avoiding displacement and, where avoidance is not feasible, minimisation thereof.

The handbook provides the following key considerations for the initiation of a successful resettlement program.

- Start consultations and scoping of displacement impacts (inclusive of ecosystem services) and potential mitigation measures during the environmental and social impact assessment phase of the project;
- Allow sufficient time for resettlement planning and consultations—ideally, start about three years before access to construction land is required in the case of projects involving significant physical displacement;
- Engage experienced resettlement practitioners early—if possible, during site selection and certainly before resettlement scoping;
- Provide internal training on the resettlement standards and approach—start with the executive management team and work down;
- Establish a working relationship with local governments and other government agencies with resettlement-related responsibilities—for larger projects, consider establishing steering and working groups;
- Allocate sufficient budget—resettlement, including land acquisition, is costly;
- Invest in avoidance and minimisation of physical and economic displacement at all stages of project design, starting with project site selection;

- Consider livelihood restoration and enhancement as key drivers for resettlement site selection where physical displacement is unavoidable;
- Start stakeholder engagement early—keep stakeholders regularly informed and updated and provide opportunities for them to contribute to decision making and participate meaningfully;
- Continuously anticipate, monitor, and pay attention to managing the community expectations that can arise at any point in the resettlement process, from scoping studies onward;
- Ensure that you mainstream vulnerability and gender aspects in every step of the resettlement-planning and implementation process;
- Establish and publicise a grievance mechanism prior to the start of site activities;
- Benchmark resettlement good practices;
- Identify and assess past land acquisition and resettlement;
- For large or complex projects, make use of experienced independent oversight or advisors to regularly review and challenge your resettlement program; and
- Begin planning the monitoring process and resettlement closure while the baseline studies are underway.

4.2.3 World Bank Operational Manual (OP4.12)

World Bank Operational Policy 4.12 prioritises the well-being of affected parties during construction and operations. The overall objectives of the Bank's policy are that:

- Involuntary resettlement should, where feasible, be avoided or minimised by exploring all viable alternative project designs;
- Where not feasibly avoided, resettlement should be conceived and executed to sustain development, with sufficient investment and resources to enable displaced persons to share the project benefits. Displaced persons should be meaningfully consulted and given opportunities to participate in the planning and implementation of resettlement programmes and compensation measures; and,
- Displaced persons should be assisted to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to project implementation, whichever is higher.

These objectives cover direct economic and social impacts that result from Bank-assisted projects and are caused by:

- The involuntary taking of land resulting in relocation or loss of shelter, loss of or access to productive assets, or loss of sources of income or means of livelihood, whether the affected persons must move to another location; or,
- The involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

4.3 Comparison between Angolan legislation and IFC

Despite the progress made in aligning domestic definitions and practices with international standards, Angola has not yet developed a single consolidated instrument specifically to tackle involuntary resettlement (MINEA, 2022).

Apart from the lack of a clear definition for resettlement, there is also a lack of a cohesive framework that addresses it. (i) the need to prepare a resettlement action plan; (ii) carrying out socio-economic studies; (iii) Strategies for resettlement and compensation in cases of involuntary resettlement; (iv) community consultation and participation; (v) institutional and organisational framework; and (vi) monitoring and evaluation. Despite valuing public consultation and citizen participation, Angolan legislation does not provide clear guidance on the procedures and regulations for involuntary resettlement and the enforcement of citizens' rights through legal means.

PS5 requires the involvement of affected people in the planning and implementation of all aspects of resettlement–including assessing the nature and scale of its impacts, necessary compensation, and restoration measures. PS5 also requires that alternatives be assessed in relation to the selection and preparation of resettlement sites. Monitoring and evaluation are required. The focus is on PAP communication and involvement, with a requirement to release the final RAP / LRPs version to the local community. It must be easily understandable and have effective methods for managing complaints from impacted individuals. Host communities, if present, should have a voice as well.

In summary, there are some significant differences between the Angolan system and the related IFC and World Bank standards on involuntary resettlement. The table below summarises the major differences between the two systems. It was adapted from (MINEA, 2022) and it indicates RNTs commitment in each case.

Table 4-2: Comparison of Angolan law and IFC PS 5

Aspect	Angola Legislation	PS5 Requirements	RNT Approach
Socio-economic survey	• Social aspects should be considered through the EIA process in terms of Section 6 and 7 of Law 117/2020[7] • Law 117/16 defines a census as the process by which dwellings in a geographical area are identified and registered, as well as the households residing in them, constituting a database to support rehousing operations • A survey of the property to be expropriated is required in terms Article 22 of Law 1/12	• Socio-economic household surveys are required address the socio-economic baseline and possible impacts. • Where involuntary resettlement is unavoidable, either as a result of a negotiated settlement or expropriation, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project, determine who will be eligible for compensation and assistance.	• Undertake surveys among Project-Affected households (including living circumstances and standards, sources of income and livelihoods and vulnerability). • Use a variety of survey tools (formal household survey, focus group discussions and key informant interviews).
PAPs	• The terms: “Beneficiaries”, “Interested Parties” and “Property Holder” are defined in the context of expropriation in terms of Law 1/12	• The IFC promotes an inclusive definition of PAPs in a resettlement context. Hence a variety of forms of land holding and use are recognised.	• The project will consider all groups of PAPs identified in the Census and Socio-economic Survey, with or without formal land use rights and assets over the land.
Cut-off date for eligibility	• No consideration is given to a cut-off date and opportunistic settlers / land uses	• The client is not required to compensate or assist those who encroach on the project area after the cut-off date for eligibility, provided the cut-off date has been clearly established and made public. This also includes opportunistic improvements to land and other assets.	• The project must coordinate with responsible bodies and subnational jurisdictions to establish the cut-off date in accordance with PS5. • Ensure community awareness of the cut-off and its implications.
Livelihood Restoration	• Compensation due for public utility expropriations shall be paid in cash or in kind by means of a one-off transfer of equivalent assets, subject to the	• Livelihood restoration support is required, with monitoring after land acquisition.	• Develop livelihood restoration entitlements and present these in the Valuation Report (addressing international standards and requirements).

[7] Presidential decree No. 117/2020 of 22 April on General Regulation on Environmental Impact Assessment and Environmental Licencing Procedures

Aspect	Angola Legislation	PS5 Requirements	RNT Approach
	exceptions provided for in the following paragraphs (Article 55 of Law 1/12). • Livelihood restoration specifically is not addressed. • No requirement for a livelihood restoration plan.		• Prepare a LRP as part of the overall Resettlement Action Plan (RAP), showing the approach to livelihood restoration to be adopted. • Monitor livelihood restoration.
Types of Compensation	• Compensation due for public utility expropriations shall be paid in cash or in kind by means of a one-off transfer of equivalent assets, subject to the exceptions provided for in the following paragraphs (Article 55 of Law 1/12).	• Provides for compensation that can be monetary, in kind (replacement of land or housing). In-kind replacement of land is strongly encouraged to promote the restoration of livelihoods.	• The project will consider appropriate forms of compensation for the loss of assets. In kind replacement will be pursued where possible. Compensation will be at full replacement cost (market value plus transactional costs).
Grievance Mechanism	• The Angolan legislation does not require a formal and impartial grievance system as is required by the IFC. • The responsibilities of local authorities (e.g., municipalities and communes) in resolving various resettlement issues are not explained. • Angolan legislation on expropriations and relocations has several references to the need to monitor and correct deviations	• Requires the establishment of an appropriate and accessible mechanism for grievance registration and complaints management that may be presented by PAPs and the community in general.	• RNT will adopt a formal grievance mechanism. • This has been developed as part of the SEP (SRK (b), 2024).
Timing of project land acquisition	• Provides for the start of land access activities of the project after payment of the compensation to PAPs.	• Establishes that project land acquisition can only take place after the full payment of compensation.	• The Project is responsible for the payment of cash compensation, the delivery of in-kind entitlements and the mobilisation of resettlement assistance. • Compensation to be paid in alignment with Angolan law. • The Project will secure land access only after: ○ Reasonable notice to vacate or yield possession has been provided. ○ All cash compensation has been paid, relevant in-kind compensation has been provided, and resettlement assistance has been mobilised. ○ Relevant land transfer, lease and other arrangements are in place, involving the relevant GoA agencies.

Aspect	Angola Legislation	PS5 Requirements	RNT Approach
Participation, Involvement, and disclosure	• Public participation is regulated by Law No 117/20 and other Angolan regulations on sustainable development.	• Requires consultation and participation by PAPs and affected communities affected, including host communities in all decision-making processes including planning, implementation, monitoring and resettlement assessment. • Emphasises the need for a transparent communication and consultation mechanism accessible to all groups and social layers, especially vulnerable groups, including women.	• RNT will ensure consultation with those affected in all phases of the project, including host communities. • RNT will observance the frequency and minimum number of meetings public consultation prescribed in the national legislation.
Eligibility Criteria	• The Land Act (09/04) differentiates different land rights in Article 34 – 40 which is discussed in Table 4-1	• Informal occupiers not compensated for land but must be compensated for improvements on land present at the cut-off date for eligibility. • A choice of relocation options must be offered, with security of tenure and no risk of forced eviction. • Assistance to restore (or improve) livelihoods is required.	• Recognise and appropriately compensate people with formal and informal rights and (according to PS 5 requirements) those with no recognised right or claim. • The Project is not required to compensate Project area encroachment after the cut-off date for eligibility. As above, ensure broad awareness of the cut-off date. • Compensation for those not considered eligible under Angolan legislation to be included in the Valuation Report.
Vulnerable People	• Angolan regulations make several references to the special involvement of women to ensure equity and social cohesion in development actions, but do not directly refer to other vulnerable groups, such as children, the elderly, people with disabilities, families headed by women, extremely poor or marginalised people, migrants, refugees.	• Requires consideration of vulnerability in the context of resettlement planning and implementation, including special measures to ensure the participation and fair compensation of vulnerable people.	• Identify vulnerable groups and provide special attention and support measures.

5 Resettlement planning

This section describes the resettlement planning process that will be adopted by RNT for all resettlement activities, should full resettlement be required. These steps are illustrated in Figure 5-1 and further elaborated in the subsequent section. Although presented as a consecutive process, some steps could be undertaken in parallel.

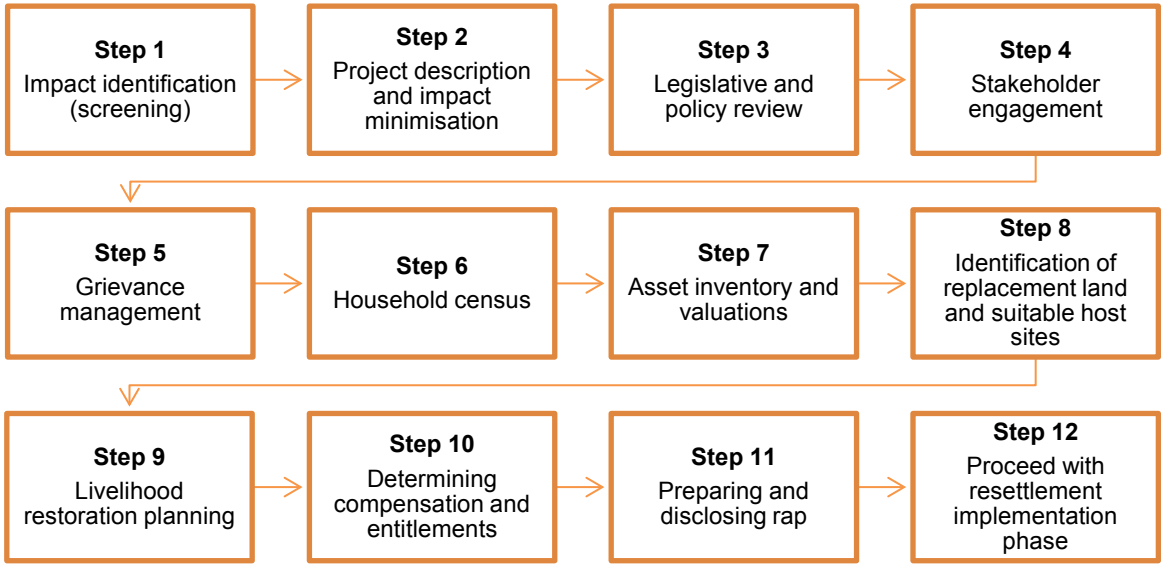


Figure 5-1: Key components of the resettlement process

5.1 Step 1: Impact identification

Planning typically starts with screening, where the anticipated future resettlement impacts (and their significance) are identified. The screening process will involve defining the area of impact and investigating people, activities and assets which may be directly affected by resettlement. This will include, but not be limited to, homesteads, farms, economic activities, social infrastructure, and cultural/religious places. Screening will be undertaken using maps and imagery together with on-the-ground surveying as necessary.

5.2 Step 2: Project description and impact minimisation

The RAP and/or LRP will include a detailed project description with a project and land acquisition schedule. In addition, RNT will describe all measures it will implement to avoid, or at least minimise involuntary resettlement wherever feasible by exploring alternative project designs and layouts. These design options will be included in the document to illustrate how particular strategies were amended to minimise impacts.

5.3 Step 3: Legislative and policy review

The RAP will include a detailed legislative and policy review section. This section will also consider how Angolan legislation aligns with the IFC PSs, as well as RNT's approach to complying with local and international standards.

5.4 Step 4: Stakeholder engagement

The purpose of an early, ongoing, and robust SE process is to build strong, constructive, responsive, and equitable relationships to enable all groups of displaced persons, host communities, and other stakeholders that have a role in the resettlement program to meaningfully participate in planning, implementation, and monitoring of resettlement activities. SE related to land acquisition and economic and physical displacement should be initiated at the scoping stage and continue for the life of the project.

A SEP was prepared for the project (SRK (b), 2024). For resettlement, the SEP will be updated to include procedures to follow during the following key resettlement components:

- Discussing resettlement and determining ways to minimise resettlement and establish mitigation measures;
- Establishing CRCs and a Grievance Mechanism;
- Census, valuation, and asset inventory process;
- Disseminating a cut-off-date for compensation;
- Disclosure of valuation reports;
- Disclosure and endorsement of the compensation framework and entitlement matrix;
- Obtaining PAP preferences regarding replacement land and village design options, and endorsement of the final selection. This will potentially include village design and layout;
- Consultations with host communities;
- Engagement regarding potential livelihood restoration and enhancement initiatives and activities;
- Engagement around implementation activities and timelines;
- RAP disclosure, review, and comment;
- Sign-off of PAP compensation agreements;
- Discussion around future monitoring and evaluation activities; and
- RAP implementation engagements.

Engagements will take place primarily at affected community and household levels. However, they will also involve government and potential implementation partners as necessary. Therefore, in the SEP, RNT will use its existing (and in some cases newly formed) CRCs as resettlement advisory groups. The CRCs will include representatives of government, RNT, community leadership and other relevant stakeholders. The existing RNT SEP should be referred to for the required stakeholder compositions of these groups. All disclosure activities will be public and held at PAP and community levels and will be accompanied by relevant summary documentation translated into Umbundo and Portuguese. All meetings will be planned well in advance and advertised and recorded as per the requirements in the SEP.

5.4.1 Engaging with vulnerable people

Customised engagement will be required to ensure the participation of vulnerable people, particularly women, the disabled and elderly. Vulnerable groups are identified and discussed in the SEIA, SEP, and Human Rights Impact Assessment (HRIA) prepared for Cassinga, as follows:

- Women;
- Men;
- Youth;
- Elderly;
- Children and adolescents;
- Migrants/internally displaced people who moved to the project area during or after the war;

- War veterans, mostly elderly;
- War maimed (disabled) persons, mostly elderly;
- Indigenous peoples / ethnic minorities, namely the San people, although they do not occur in the project-area (SRK (a), 2024); and
- Artisanal and Small-scale Gold Miners (ASGM) in the project area.

5.5 Step 5: Grievance management

It is accepted good practice to afford affected parties the opportunity to air concerns and grievances related to sensitive issues such as resettlement and compensation. The IFC requires a detailed grievance management procedure. For every future resettlement project, RNT will develop and disclose an IFC-compliant Grievance Mechanism. A Grievance Redress Committee shall be established by RNT to manage this mechanism.

The objectives of a Grievance Mechanism include:

- Creating a transparent and legitimate process between RNT and the affected households that enhances the relationship, improves communication, and builds trust;
- Linking the process to the overall stakeholder engagement strategy to allow it to be mutually reinforcing;
- Creating a “mouthpiece” for PAPs and the affected households to voice their concerns;
- Addressing resettlement-related concerns and grievances effectively and promptly in a manner that is mutually beneficial to both RNT and all stakeholders; and
- Dealing with issues quickly and effectively therefore reducing reputational risks that can be associated with the resettlement process.

The Grievance Mechanism will be communicated to all PAPs, affected households and communities, host sites and stakeholders as per RNT SEP to ensure awareness thereof. It is also essential for all stakeholders to have easy access to the strategic points through which grievances and complaints can be submitted, recorded, and resolved at no cost or retribution.

A grievance management system was developed for the project as part of the SEP (SRK (b), 2024). Figure 2-2 provides an overview of the role players in the resettlement process and grievance system.

5.6 Step 6: Household census

“*Where involuntary resettlement is unavoidable, either because of a negotiated settlement or expropriation, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project, determine who will be eligible for compensation and assistance, and discourage ineligible persons, such as opportunistic settlers, from claiming benefits*” (IFC, 2012: p. 4).

Once more details are available on the placement of the pylons, the buffer zone around the infrastructure can be refined and PAPs more accurately identified. Then, a clearly defined stakeholder engagement approach can be developed for the Cassinga resettlement process. Once this is defined, RNT should conduct a census of all identified PAPs who either have formal legal rights, recognisable claims to land or no legal land rights or claims - the latter to address IFC requirements. The census will collect data according to a defined set of household and individual variables. Key themes should include household demographic composition, livelihoods, income and expenditure, culture and tradition, conflict, and land-use.

Household census data will be recorded in an electronic database. Each household surveyed will receive a household identification number linked in the database to assets and valuations. All photographs will be linked to the record of each household and/or homestead. Compensation rates

will be applied using the data in such a database. As part of the census, vulnerable households will be identified.

Any livelihood activities that might be impacted by the project need to be recorded as well. During household surveys, this will need to be confirmed (the estimations in Section 1.4.2 can be used as guideline) and ascertained for any undocumented land-based livelihood and other economic activities (such as roadside stalls described in Section 1.4.3).

5.7 Step 7: Asset inventories and valuations

A registered, independent valuation surveyor will be appointed to undertake valuations of identified immovable assets.

Within the impacted area, the following land and assets will be recorded and valued:

- All impacted land, including urban, non-urban, agricultural (fallow or cultivated), grazing, and communal (including in the access road buffer areas as described in Section 1.4.3);
- All non-moveable structures/buildings and/or installations (including potential income from rent and expenditures incurred);
- Community buildings or social infrastructure;
- Natural resources and ecosystem services[8];
- Businesses (including potential business income and expenditures incurred and those in the access road buffer areas as described in Section 1.4.3);
- Any civil works;
- Cultural land, graves, cemeteries, cultural heritage sites; and
- Standing crops and trees (both crop and cash trees).

Local community leaders and/or representatives will be requested to assist in identifying land/structure/asset owners/users. Details of the owner (and/or spouse) of the affected land/asset will be captured, accompanied by photographs and copies of registration cards. All property details will be recorded, including ownership details, affected household detail (as per the census data) spatial location details (using GPS points or GIS polygons), boundaries, construction details, sizes and structure usages.

An identification number will be assigned to each plot to be valued, whilst a comprehensive database will be linked to the identification number of the household. The surveyor will work closely with a representative(s) of the Ministry of Agriculture and Forestry (MINOPO), as well as elected community representatives to witness each survey, as well as the owner and/or spouse. The owner and spouse(s) will be provided with a hard copy of the asset inventory and valuation, to be signed by them, as well as the aforementioned ministry and community representatives. This documentation will be used as proof of the procedure, as well as to investigate any potential future land conflicts or boundary disputes between owners.

Valuation of homesteads and associated land

Using a standard questionnaire form, all impacted homestead plots, and structures thereon inside the impacted area will be valued. An inventory will capture:

- Ownership details;
- Residential and ancillary structures (livestock enclosures, storerooms);
- Associated infrastructure (boreholes, fences, pipework, tanks);

[8] Such as the use of a particular natural resource by a PAP or household for their livelihood

- Building materials and sizes;
- Crops and productive trees and spatial locations; and
- Spatial location of structures (GPS points).

Photographs of all structures will be captured.

Valuation of agricultural land

For impacted agricultural land (which includes vegetable gardens on homesteads), regardless of whether such land is held as state-owned, private or customary (formal/informal), RNT will appoint an agronomist or similar relevant professional to assist in the valuation of assets and compensation determination. Farmland and all structures thereon will also be valued in terms of potential incomes and expenditures. An inventory will include annual/perennial crops and crop trees. This inventory will be used to determine compensation rates at a replacement value of the loss of crops or land. Farms that transverse the boundaries of the project footprint area will be surveyed in full to determine whether an entire replacement plot or a portion thereof should be compensated. Should the remaining portion be deemed to be not financially viable (orphaned land), RNT will compensate for the entire piece of land.

The inventory will capture details related to:

- Land ownership;
- Land-use;
- Crop types and coverage;
- Crop tree quantities and age;
- Spatial cover; and
- Farm structures and fixtures.

5.7.1 Replacement value approach

"When displacement cannot be avoided, the client will offer displaced community(ies)/persons compensation for loss of assets at full replacement cost and other assistance" (IFC, 2012). Replacement cost is defined as "*market value plus transaction costs*".

An approach will be developed that adopts replacement value whilst considering the valuation approach prescribed under in Angolan legislation. Following engagement with the relevant government structures, this approach will be adopted by the valuation surveyor.

The general principle of replacement value is that affected households should not have to incur any costs associated with their relocation while having sufficient funds to replace their lost/impacted assets. This approach will include transactional costs, such as transfer fees and all required expenses to be incurred by PAPs to relocate their assets. It accounts for all required labour, taxation costs or all forms of overheads that may apply. The method excludes deductions from any forms of depreciation or the salvaging of materials. Replacement cost will also be determined by surveys of recent area transactions or similar land and assets.

All compensation rates will be discussed and disclosed in accordance with an engagement process laid out in an SEP. Most of these discussions will take place through the CRCs, and with relevant stakeholders and the affected communities. All stakeholders will have the opportunity to challenge valuations, which should be transparent and easily comprehensible to the PAPs.

5.7.2 Angolan rates for evaluation of assets and compensation

This section provides the legislated and customary Angolan approach to the evaluation of assets ad compensation, as reported by (Holisticos, 2019). Annual inflation rates should be applied to the rates which were set by the GoA.

Crops and trees

Angolan legislation approach

Compensation for crops and economic trees is based on rates established by the Ministry of Agriculture and Forestry. The latest crop rates available were set in 2018 and are presented in Table 5-1. These rates are understood to have been calculated using then current market rates with values provided in US Dollars (USD) per hectare of crop. The 2015 version of the government crop rates provides more detailed rates considering crop maturity and size as shown in Table 5-2.

Table 5-1: Government compensation rates for crops and trees (2018)

Culture / Tree	Production Price (USD/hectare)
Corn	424.4
Bean	296.4
Cassava	375.6
Potatoes	449.9
Eggplant	388.8
Tomato	377.1
Pepper	387.3
Mango Tree	477.3
Papaya Tree	447.2
Banana Tree	447.2
Orange Tree	467.6
Lemon Tree	451.9
Pineapple Plant	436.1
Avocado Tree	450.1

Source: MINAGRIF, 2018.

Table 5-2: Compensation rates for crops and trees (2015)

No.	Culture / Tree	Price/Tree/Cultivation (USD)
1	Transplant of improved mango tree (nursery)	15 – 17
2	Medium mango tree planted on the land	55
3	Local mango tree in production (i.e., productive tree)	120
4	Improved mango tree planted on the land and producing	160
5	Transplant of cashew tree (nursery)	8
6	Medium cashew tree planted on the land	40
7	Medium cashew tree planted on the land and productive	60
8	Banana tree /nursery	8
9	Banana tree planted on the land and productive	50
10	Cassava	1,150/ha = 0.115 USD/m^2
11	Sweet potato	980/ha = 0.098 USD/m^2
12	Sugar apple tree or sweetsop tree (i.e., *Annona squamosa*)	30
13	Soursop tree ("Sape-Sapeiro") (i.e., *Annona muricata*)	30
14	Transplant of papaya tree (nursery)	8
15	Medium papaya tree planted on the land and productive	20

No.	Culture / Tree	Price/Tree/Cultivation (USD)
16	Papaya tree in production (i.e., productive tree)	55
17	Transplant of guava tree (nursery)	8
18	Medium guava tree planted on the land	30
19	Guava tree in production (productive tree)	60
20	Passion fruit tree in production (productive tree)	30/m^2
21	Transplant of avocado tree (nursery)	8
22	Medium avocado tree planted on the land	60
23	Avocado tree in production (productive tree	160
24	Tamarind tree	30
25	Lemon tree without fruit and in production	35-55
26	Lemon tree in production (i.e., productive tree)	100
27	Transplant of citrus trees (lemon, orange, and grapefruit trees)	14-16
28	Medium orange tree planted on the land	50
29	Orange tree in production (productive tree)	120
30	Coconut tree in production (productive tree	80
31	Transplant of the shade trees and ornamental plants (**)	30
32	Medium shadow tree planted on the land	30
33	Big shadow tree planted on the land	80
34	Transplant of pineapple plant	8
35	Pineapple plant, planted in the land and productive	60
36	Tomato plant	5
37	Pomegranate tree	30
38	Eggplant plant	8
39	Okra plant	8
40	Gimboa plant (*Jimboa*)	5
41	Pumpkin/melon/watermelon	10
42	Palm tree in production	60
43	Sugar apple tree (i.e., *Annona squamosal*) in production	60
44	Diverse vegetables in production	1 150/ha = 0.115 USD/m^2
45	Soursop tree (i.e., *Annona muricata*) planted on the land and productive	35-70
46	Tamarind tree planted on the land and productive	25-40
47	Sugarcane	450/ha = 0.045 USD/m^2
48	Leguminous plants	600/ha = 0.06 USD/m^2
49	Corn planted on the land and productive	500/ha = 0.045 USD/m^2

Source: MINAGRIF, 2015.

Physical structures

Physical structures that will need to be moved and compensated for include residential structures, non-residential ancillary structures associated with agricultural livelihoods (such as small farms or *casas de lavras*), and non-residential economic structures.

The size and number of rooms required for each household are determined based on the household size and property type (assuming two persons per room) as shown in Table 5-3. When there are no property types for the household composition, particularly for larger households, the affected household may receive two houses instead of one.

Table 5-3: Classification of replacement housing

Household composition (number of people)	Property Type (Number of rooms)
2-3	T2
4-6	T3
6-7	T4
8 or more	T5

Source: Presidential Decree 117/16

Land

In Angola, the process for the valuation of land or land values themselves is not clearly established by the government. Land value per square metre varies according to location and is determined by the municipal administration in conjunction with the Ministry of Urbanism and Housing. In some areas the value is set at **3 USD/m^2** (mainly in rural areas) while in other areas it may reach up to **30 USD/m^2** (in peri-urban areas).

5.8 Step 8: Identification of replacement land and suitable host sites

5.8.1 The provision of replacement land

Land-for-land compensation is strongly encouraged by the IFC, especially where livelihoods are largely land-based. RNT will provide replacement land for economically displaced PAPs who lose their farms, vegetable gardens, livestock grazing land, cultural and/or natural resources, or access to such sites. The replacement land will be of equal or greater value than the land lost. Replacement land will be secured with consideration of impacts on host communities and neighbouring landowners/users.

The following principles will be adopted by RNT in sourcing and allocating such replacement land as per the PAP eligibility criteria (Figure 5-2) and entitlement framework (Table 5-4):

- Land will be of similar or better productive capacity;
- An agricultural assessment will be conducted to ensure land suitability;
- Any land replacement land will be in reasonable proximity to existing residences and livelihood activities;
- Land will be offered free of any transaction costs, such as registration fees, transfer taxes or customary tributes;
- Security of tenure will be provided as a 99-year occupancy certificate; and
- Land will not result in increased labour demand for PAPs in terms of land preparation, fertilising, watering.

5.8.2 Host site selection and development

"In the case of physically displaced persons […], the client will offer the choice of replacement property of equal or higher value, security of tenure, equivalent or better characteristics, and advantages of location" (IFC, 2012).

A suitable host site or sites will be selected for physical displacement. The sites will be provided to PAPs with the provision of 99-year occupancy certificates, ratified by the governor and LGA. The identified land should be unclaimed or unused land to avoid the further displacement of PAPs or institutions/infrastructure.

All PAPs, host communities and other relevant stakeholders will be consulted regarding the selection of suitable sites.

5.9 Step 9: Livelihood restoration planning

"Livelihood refers to the full range of means that individuals, families, and communities utilise to make a living, such as wage-based income, agriculture, fishing, foraging, other natural resource–based livelihoods, petty trade, and bartering (IFC, 2023).

Transmission lines are a typical project which may involve temporary economic displacement. For temporary displacement, livelihood-restoration measures commensurate with the duration, magnitude, and complexity of impact should be planned and implemented.

RNT will identify and procure a suitably qualified and experienced external service provider to develop and implement livelihood restoration initiatives (to be incorporated into an LRP) based on the needs of each resettlement project, beneficiaries and stakeholders. The LRP will be described in a RAP document, together with institutional arrangements, responsibilities, a budget and schedule for implementation. The LRP can also be a standalone document, or an annexure to a RAP.

The LRP will detail all aspects of livelihood restoration, and include core projects with detailed scopes of work, implementation arrangements, and monitoring and evaluation criteria. The LRP will contain criteria for the selection of project options, as well as vulnerability criteria and arrangements for project selection by vulnerable groups. The aspect of deforestation should also be considered.

The following are rural development agencies / programmes in Angola with which RNT could partner for the LRP. These are discussed in more detail in the SEIA (SRK (a), 2024).

- CASI (Centros de Acção Social Integrada / Integrated Social Action Centres);
- ECA (Escolas de Campo de Agricultores / Farmer Field Schools);
- EDA (Estações de Desenvolvimento Agrícola / Agricultural Development Stations);
- IDA (Instituto de Desenvolvimento Agrário / Agrarian Development Institute);
- PEDR (Programa de Extensão de Desenvolvimento / Rural Development Extension Programme);
- PIDLCP (Programa Integrado de Desenvolvimento Local e Combate à Pobreza / Local Development and Combating Poverty Programme);
- PIIM (Programa Integrado de Intervenção Municipal / Integrated Municipal Intervention Programme);
- Angola Agricultural Transformation Project (MOSAP); and
- IDL-FAS (Instituto de Desenvolvimento Local – Fundo de Apoio Social / Institute for Local Development – Social Support Fund).

5.10 Step 10: Determining compensation and entitlements

5.10.1 Eligibility and entitlement

RNT will develop household and PAP-level resettlement eligibility and entitlement criteria to determine who will be eligible for resettlement and benefits, and to discourage the in-flow of ineligible persons.

5.10.2 Eligibility criteria

As per IFC PS 5, the implementing agent will adopt an eligibility approach that covers PAPs with a variety of tenure circumstances and occupying/utilising the impacted land. the implementing agent will consider eligibility criteria under local law in and around the Cassinga project and will add or enhance criteria as required to align with IFC PS 5. PS 5 eligibility criteria are shown in Figure 5-2.

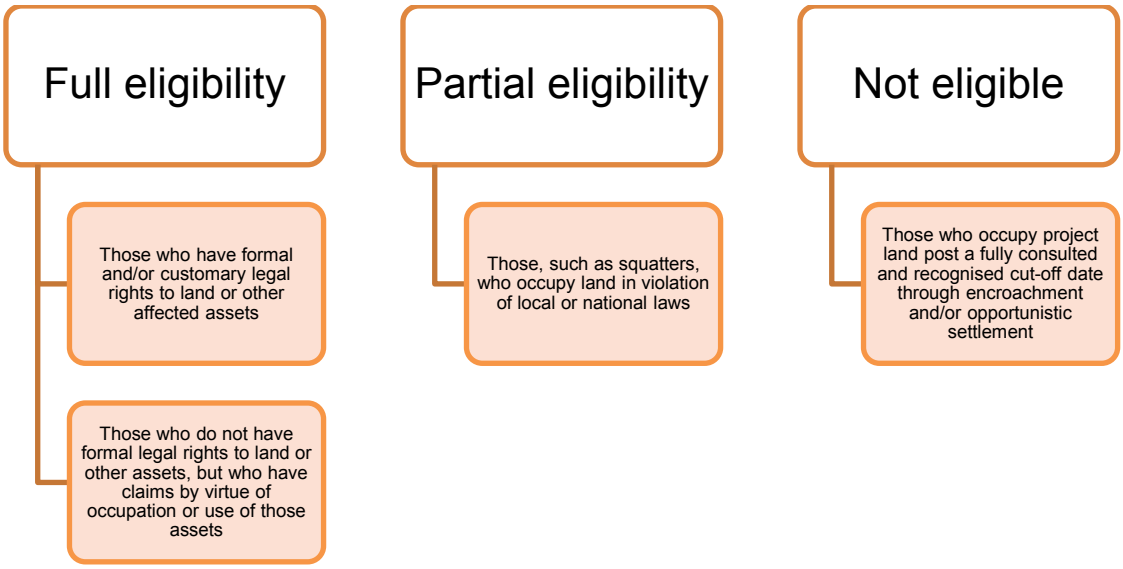


Figure 5-2: Eligibility criteria as per IFC PS 5

5.10.3 Entitlement

RNT's entitlement framework defines the different cash or in-kind compensation, assistance, and support to be provided to eligible PAPs. The framework also defines which person/entity is entitled to livelihood restoration. A detailed eligibility and entitlement framework is provided for the Cassinga project in Table 5-4.

Entitlements for compensation will be based on extensive stakeholder consultations. Preference will be given to in-kind land-based resettlement strategies. Where sufficient land is not available at a reasonable price, non-land-based options will be provided in addition to cash compensation for land and other assets lost. All eligible PAPs will have one month to salvage any material before the demolition thereof.

Allowances

RNT will pay four types of allowances as part of the PAP entitlements:

- **An inconvenience allowance**. Will account for any possible inconvenience experienced by a PAP or a household during the resettlement process. It also accounts for any additional costs PAPs may incur while settling in their host sites or on their new farms. Loss of income during agricultural re-establishment is a potential component of this allowance. The same inconvenience allowance will be paid as per the previous resettlement programmes;
- **A moving allowance**. Will be determined based on local transportation and labour costs and should account for the cash needed to move material and/or assets to a new site. The allowance will be paid in cash at least four weeks before relocation to allow households to have time to utilise the payment; and
- **A rental allowance**. Will be provided to tenants to allow them to organise new rental premises and/or land as required. The amount will be informed by the average local rental values in the LGA over a predetermined period.

Some additional criteria, as below, will apply to identified vulnerable households:

- Such households will be offered moving support, and not just an allowance;
- Special assistance will be provided during the relocation and livelihood restoration process. The type of assistance will be workshopped during focus group discussions. These may include:
  - Land transactional allowances;
  - Disturbance allowance;

- Designated assistance as assessed on a case-by-case basis to ensure that vulnerable people have access to intended compensation and protection afforded them by the conditions of the RAP; and
- Legal assistance, financial assistance, and practical assistance as determined applicable on a case-by-case basis.

Allowances will be determined and disclosed through engagements at PAP, resettlement CRC and PAP levels. Timing of resettlement can significantly affect some allowances.

A number of pylons may be placed inside maize fields, which will result in economic displacement. It is important to consider that certain crops, like cassava, require around a year to reach harvest readiness. Farmers should still be compensated for the loss, even if the plants are not fully mature. Farming activities can be practiced under the powerline during operations, as long as safe clearances and building restrictions are followed.

Support for social programmes

MINEA / RNT may also offer support to eligible PAPs for inclusion in number of ongoing social Government program ongoing, such as:

- The National Social Protection System Strengthening Project (KWENDA) is a program to implement short and medium-term poverty mitigation measures that: (i) increase the purchasing and financial capacity of families by providing a monthly income to poor families in selected areas and (ii) help to establish an effective National Social Protection System. None of the villages in the project area have yet been covered by the KWENDA project; and
- Agricultural Development Support Fund (FADA) a non-banking financial institution that allocates financial resources in the form of credit to support actions related to food production in family farms, cooperatives, associations, micro and small agricultural businesses. The goal is to promote agricultural development and enhance food security.

Management of cultural resources

Should cultural resources be affected by resettlement, RNT must develop an IFC-compliant Cultural Heritage Management Plan. Important components of this will be incorporated into a RAP document, pertaining to PAP, household and community eligibility compensation, and management measures. Existing graves will be fenced and left undisturbed. Safe access to such graves will be ensured.

Table 5-4: Eligibility and entitlement framework

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
A: Land					
A1	Loss of land with dwelling (entire plot acquired)	Acquisition (permanent loss)	• Legal holder of land • Customary holder/user of land • Institutional owners	• Replacement land of equivalent size to land lost, with security of tenure (99-year permission to occupy) • Land re-establishment costs • Formal tenure in the name of the owner or spouse • Payment of all transaction costs • Disturbance allowance • Other allowance as applicable	None
A2	Loss of land with dwelling (portion of land acquired)				
A3 & A4	Permanent loss of agricultural (crop) land where entire plot affected or remaining portion not viable (orphaned land) OR Permanent loss of agricultural (crop) land where only part of plot acquired with remaining portion (or PAP remaining landholding) still viable to support livelihood activities	Acquisition (permanent loss).	• Legal holder of land • Customary holder/user of land	• Replacement land of equivalent size and quality to land lost (provided land is available), with security of tenure as per IFC PS 5 • Payment of all transaction costs • Disturbance allowance • Other allowances as applicable	Group level land-based and non-land-based livelihood restoration programmes
			• Legal holder of land. • Customary holder/user of land **PAP is considered vulnerable**	• Replacement land of equivalent size to land lost (provided land is available), with security of tenure as per IFC PS 5 • Payment of all transaction costs • Disturbance allowance • Other allowances as applicable	• Group level land-based and non-land-based livelihood restoration programmes • Individual level livelihood restoration programmes (as appropriate to vulnerability factors of PAP) • Where replacement agricultural land is not available an additional alternative livelihoods programme will be offered to the PAP
A5	Permanent loss of agricultural (crop) land	Acquisition (permanent loss)	• Acknowledged users but not owners (incl. tenants by occupancy) • Persons with informal occupancy	No land entitlement	Group-level land-based and non-land-based livelihood restoration programmes

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
A6	Permanent loss of grazing land	Acquisition (permanent loss)	• Legal holder of land • Customary holder/user of land	Replacement land of equivalent size to land lost (provided land is available), transaction costs and relevant allowances	Group-level land-based and non-land-based livelihood restoration programmes
A7	Permanent loss of bare farmland/vacant land	Acquisition (permanent loss)	• Legal holder of land • Customary holder/user of land		
B: Loss of structural assets					
B1	Loss of primary residence and associated secondary dwellings for wives or family members (subject to criteria). Houses must be occupied and in regular use and complete at time of valuation.	Permanent loss of full structures, or partial where remainder unable to be occupied	Structure owner and occupier irrespective of legal right of occupation including "Certificate of Occupancy"	**In-kind option:** • Structure owners will receive replacement housing (and certain ancillary domestic structures) with standard house design. The design will comply with local regulations and standards and be of an equivalent or suitable standard than the existing houses and comply with all relevant building and planning standards. • Different housing options will be provided • Transaction costs • Cost of transportation for the removal of household goods and reusable and transportable construction materials to replacement location • Disturbance allowance • Other allowances as applicable OR **Cash option:** • Replacement cost for structure in entirety • Disturbance allowance • Other allowances as applicable	None
B2	Ancillary structures and outbuildings, livestock kraals, wells/boreholes, septic systems, soak-aways, storehouses, perimeter walls, steps, verandas, non- tarmac access points, and the like - including incomplete structures	Permanent loss of other and ancillary structures	Owner of infrastructure. This may not be the same as owner of plot.	• Replacement cost for entire structure, if no longer viable • Incomplete structures to be valued at replacement cost considering the level of completion of the structures • Inconvenience allowance • Disturbance allowance • Cost of transportation for the removal of household goods and reusable and	None

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
				transportable construction materials to replacement location	
B3	Sanitation facilities	Loss of sanitation facilities	• Owners of residential, commercial, and other buildings • Government agencies as owners of communal facilities	• Replacement cost for facility/structure • Disturbance allowance • Other allowances as applicable	None
B4	Loss of primary residence, loss of secondary dwelling(s) and/or loss of ancillary structures and outbuildings	Loss of residence, secondary structures, and/or loss of ancillary structures and outbuildings	Persons with informal occupancy and owner of asset	• Resettlement assistance based on compensation for built assets that they own (excluding land). Addressed on a case-by-case basis to ensure PAPs do not end-up worse off because of project induced displacement. OR • The project may, where the persons with informal occupancy are also vulnerable, provide in-kind replacement housing and land with security of title. This will be dealt with on a case-by-case basis. • Different housing designs will be offered	• Land and non-land-based group level livelihood restoration programme OR • Individual-level livelihood restoration programme
B5	Loss of place of residency	Permanent loss	Tenants, or other owner permitted occupants	• Project support to secure alternative accommodation • Three months residential rental assistance allowance • Other allowances as applicable	None
C: Loss of business structures					
C1	Fixed structure designated as formal business premises	Permanent loss	Structure owner with legal right of occupation and operator of business	• Replacement cost for entire structure • Fitting out costs, as appropriate • Disturbance allowance • Loss of profit if applicable • Transaction costs • Full cost of transportation for the removal of goods and reusable construction materials to a new location • Other allowances as applicable	Non-land-based/non-crop-based livelihood restoration programmes
C2	All non-fixed structures designated as informal business premises	Permanent loss	• Owner • Informal owner and/or operator	• Project support to find new location and transport assistance of non-fixed business premises to new location • Transportation relocation	

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
				• Other allowances if applicable	
D: Loss of business by tenant					
D1	Fixed structure designated as business premises	Permanent loss	Formal business tenant	• Project support to find new location and transport assistance of non-fixed business premises to new location • Transportation relocation • Other allowances if applicable ***In-kind option:*** • Relocation to equivalent or better site, if available, with security of tenure • Perishable inventory • Other allowances as applicable OR ***Cash option:*** • Loss of income for six months • Transportation relocation allowance • Perishable inventory • Other allowances as applicable	Non-land-based/non-crop-based livelihood restoration programmes
D2	All non-fixed structures designated as business premises	Permanent loss	Informal business tenant	• Project support to find new location and transport assistance of non-fixed business premises to new location • Transportation relocation • Other allowances if applicable	
E: Loss of resources providing income in cash or in kind					
E1	Loss of community accessed resources such as forests, wetlands, and non-economic trees	Permanent and temporary loss but does not impact on access to remaining area.	Resource users or any persons losing an income stream associated with land alienated and including seasonal natural resource users (IFC PS5 GN 8)	Community-level access would be maintained	None
F: Loss of communal or institutionally owned structures or land					
F1	Structures owned by community or institutions. These include community centres not built by government, such as churches, mosques and other places of worship, market stalls, private schools, private clinics.	Permanent loss or loss of access temporarily	Owner of building and infrastructure	• Replacement cost for land and structures • Disturbance allowance • Other allowances as applicable	None

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
F2	Government developed and owned structures	Permanent loss	Government as owner	***In-kind option:*** • Replacement of structures in consultation with relevant government authority OR ***Cash option***: • Compensation on a case-by-case basis as per agreement with government	None
F3	Land used for communal purposes; particularly pastoral land used for collective grazing	Permanent loss	Communal owner	Provision of suitable replacement land in coordination with the LGA	None
G: Trees and crops					
G1 & G2	Loss of crops: seasonal and perennial	Permanent loss or restriction of access	Owner of crops or trees of economic value	• All PAPs who lose crops and trees of economic value as recorded on the day of valuation (i.e., present at the cut-off date) are eligible for: cash compensation for level of maturity at date of valuation of lost crops and trees of economic value adjusted to reflect the market value for the year of valuation • Disturbance allowance and other allowances as applicable	• Group-level land-based and non-land-based livelihood restoration programmes • Individual-level livelihood restoration programmes (as appropriate to vulnerability factors of PAP)
G3	Loss of crops: seasonal and perennial	Permanent loss or restriction of access	Tenant farmer		
G4 & G5	Loss of fruit trees of economic value including fruit and timber trees	Permanent loss or restriction of access	• Tree owner • Tree user/tenant owner		
G6	Loss of fruit or timber trees	Permanent loss or restriction of access	Communal/village ownership		
H: Cultural assets					
H1	Graves	Permanent	Individuals or groups laying claim to grave	• Demarcation and adequate protection of the gravesite • Continued access to be provided to next-of-kin. • Should relocation be necessary, compensation limited to the reasonable expenses incurred in the removal, transportation, reinstatement, and re-interment of the grave and any placatory or expiatory rites or other ceremony	None
I: Vulnerable individuals and groups					
I1	Supplementary programme of social support for vulnerable	Permanent or temporary loss	Households who are physically/economically displaced by the project. A household will be	• Designated assistance as assessed on a case-by-case basis to ensure that vulnerable people have access to intended compensation and protection	• Participation in relevant livelihood restoration programmes, depending on significance of project

Impact		Effect	Entitled persons	Entitlement	
				In-kind and/or cash compensation	Livelihood restoration
	people entitled to any of the above benefits		categorised as potentially vulnerable as per the criteria detailed in the SEP.	afforded them by the conditions of the RAP • Legal assistance, financial assistance, and practical assistance as determined applicable on a case-by-case basis	impact and appropriate to vulnerability factors of PAP • Access to group-level land-based and non-land-based livelihood restoration programmes, and (as appropriate) individual-level livelihood restoration programmes
J: Financial transition					
J1	Cash windfalls	Inability of households to manage sudden cash windfalls and misallocation of funds for items other than intended ends	All persons receiving a form of cash compensation identified through final census surveys	Assistance with the opening of bank accounts	Money management training will be provided (which will be relative to cash compensation amount)

5.10.4 Cut-off date

To avoid an influx of outsiders coming into the project area in search of project benefits or compensation, a cut-off date for eligibility and entitlement will be established at the conclusion of the household census, valuation, and asset inventory process. According to the IFC: "*The client is not required to compensate or assist opportunistic settlers who encroach on the project area after the cut-off date*" (IFC, 2012). The date of the census will serve as the cut-off date for compensation and no new arrivals in the project area, or assets created after this date, will be eligible for compensation. The cut-off date will be announced and made public through instruments listed in the RSEP and other appropriate means, Should the implementation of the resettlement be delayed by more than two years from the cut-off date, RNT will update the census and asset inventory to reflect the current socio-economic context.

5.11 Step 11: Preparing and disclosing a Resettlement Action Plan

RNT will, with the support of qualified and experienced external resources, compile a formal RAP and/or LRP document. The documents will be prepared in accordance with RNT RSEP requirements, which stipulate consultation with the PAPs, affected communities, host sites and all other stakeholders, concerning:

- The cut-off-date for compensation;
- Eligibility criteria;
- Anticipated livelihood disturbances and impacts;
- The potential loss of income-earning opportunities and land;
- Methods of valuation and compensation payments;
- Livelihood restoration;
- Potential assistance during the relocation; and
- Timeframes.

The RAP and/or LRP will detail all resettlement planning and implementation activities. Sufficient time will be allocated to resettlement planning and the final document compilation, which may take between eight to 12 months. Draft and final versions will be disclosed to the PAPs, affected communities, host communities and stakeholders. Summary copies of the draft and final RAP(s) will be made available to all PAPs in Portuguese for comment periods and input. The project team will also make the draft and final RAP(s) available to the MINAMB for a 21-day period. This ministry will set up a panel to review the RAP(s), comment on it and then issue an approval.

5.12 Step 12: Proceed with resettlement implementation

This step involves the RAP implementation, which is elaborated upon in the following section.

6 Resettlement implementation

After the RAP document has been disclosed, and all relevant inputs and approvals have been obtained, the Resettlement Implementation Phase will commence. RNT will develop as part of the RAP a detailed implementation plan, schedule, and budget. Resettlement will be managed by an appointed representative of RNT with the assistance of external, independent service providers as required. These may include specialists to implement the LRP(s) and/or grave management procedures, design PAP-level compensation contracts or construct new resettlement villages.

The following section outlines the implementation tasks, as well as role-players that will be involved in the implementation process.

Figure 6-1 shows eleven key resettlement implementation phase tasks upon which RNT will expand in the RAP document. Stakeholder engagement will continue throughout implementation and especially during the relocation process and livelihood restoration implementation. The SEP will be followed and kept updated with all activities under the implementation phase.

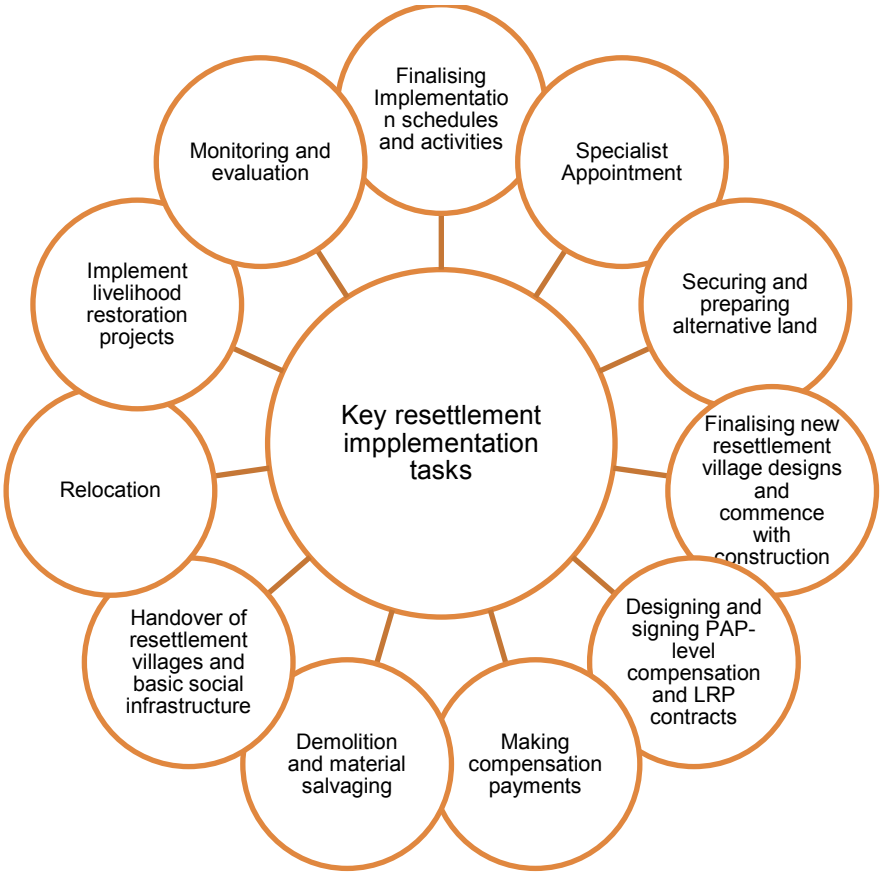


Figure 6-1: Key resettlement implementation phase tasks

7 Budget and schedule

7.1 Budget

The RAP document will have a detailed planning and implementation budget. Having such a budget allows for adequate resettlement funds to be allocated during the RAP Implementation Phase. The budget(s) will be based on field assessments, land valuations and specialist quotations for livelihood restoration implementation. It will include the payment of compensation and allowances, and land acquisition costs. Furthermore, it will be integrated with the budget of required civil works, together with any feasibility studies and or other specialist involvement.

The funding source will be explicitly identified in the RAP document. This includes the provision of funds, flow thereof and required rules and regulations related to such funding.

7.2 Schedule

RNT will prepare a detailed implementation schedule. Where appropriate, the schedule will be coordinated with construction schedules.

The RAP / LRP planning, and implementation may take years and can vary based on several project-specific factors:

- **Project scale**: Larger projects may require more time for planning and execution.
- **Legal and regulatory requirements**: Compliance with local laws and regulations affects the timeline.
- **Community consultations**: Meaningful engagement with affected communities takes time.
- **Resource availability**: Adequate funding, skilled personnel, and logistical support are essential.

8 Monitoring and evaluation

The following section identifies monitoring and evaluation (M&E) objectives, key performance areas, broad Key Performance Indicators (KPIs), monitoring responsibilities, timing and frequency of monitoring and reporting. A final M&E Framework will be developed by RNT as a component of the RAP.

8.1 Objectives

RNT's primary M&E objective is to ensure that the proposed resettlement management measures were fully implemented, and that PAPs and affected households derived maximum benefit from the agreed compensation and associated development support.

Objectives of M&E will include:

- Assessing progress with RAP activities;
- Monitoring RAP implementation including compensation and resettlement processes;
- Determining the impact of resettlement and compensation on PAPs and affected households;
- Recommended management measures for potential impacts adversely affecting PAPs and affected households;
- Determining the nature and causes of RAP implementation problems and identifying solutions;
- Ensuring compliance with international standards and national legal requirements;
- Guiding further interactions with PAPs and affected/host communities;
- Building a base of goodwill and trust between RNT and stakeholders;
- Securing early warning of problems and potential conflicts;
- Establishing a base for feedback with PAPs and affected households, local government, and other stakeholders; and
- Ensuring vulnerable households are adequately included and supported.

8.2 Frameworks and indicators

KPIs assist with monitoring and managing resettlement implementation and impacts. Such indicators can be classified under three broad categories:

- **Process indicators**: Indicating project inputs, expenditures, or staff deployment. These indicators will largely address RNT's internal M&E;
- **Output indicators**: Indicating RAP implementation results in terms of numbers of PAPs compensated and resettled or livelihood restoration training. These indicators will mainly assess the resettlement internal implementation processes and results; and
- **Impact indicators**: Measuring the longer-term socio-economic effects of resettlement on PAPs. Impacts can be determined using the established social baseline and Grievance Mechanism. These indicators will largely determine the external impacts of resettlement implementation.

Table 8-1 below provides examples of KPIs that RNT will develop further in the RAP document.

Table 8-1: Key performance indicators

Indicator	Description	Indicative measurement criteria
Process indicators		
Staff deployment	• If required, recruit additional staff members or external consultants to assist with RAP implementation, management, and monitoring	• Number of staff • Terms of reference for external consultants and resettlement specialists • Staff training completed

Indicator	Description	Indicative measurement criteria
Internal staff meetings	• Weekly meetings held with staff responsible for resettlement and livelihood restoration • Monthly management meetings with key project personnel	• Minutes from management meetings
Meetings with key stakeholders	• Monthly meetings with stakeholders, including CRCs, LGA and national authorities, NGOs/CBOs and/or consultants	• Minutes from meetings
Reporting	• Monthly progress reports • Annual reporting	• Reports
Expenditure	• Expenditure on compensation, resettlement LRP programmes	• RAP budget
Output indicators		
PAPs	• Details of PAPs affected by resettlement including economic and physical displacement	• Numbers of PAPs affected by physical displacement • Number of PAPs affected by economic displacement
Vulnerable people	• Details and status of the potentially vulnerable people (as identified in the baseline)	• Income status • Transitional adaptation
Compensation	• Descriptions of compensation payments	• Compensation payment amounts • Signed compensation agreements • Completed payment of all cash compensation (moving allowance and crops)
Livelihood restoration planning	• Commence with the implementation of the LRP	• Commence post-resettlement consultation regarding LRP opportunities • Enrolment at tertiary institutions • Commence with payment of municipal rates and taxes
Grievances	• Review the effectiveness of the Grievance Mechanism	• Number of grievances received • Number of hearings • Percentage of grievances resolved • Percentage of grievances still outstanding
Impact indicators		
Collect socio-economic data on PAPs and their affected households	• Undertake a household census survey with project-affected people one-year post-resettlement	• Ability and cost of accessing basic social services • Determine differences between pre- and post-resettlement income and expenditures
Livelihood restoration planning and implementation	• Review the effectiveness of the LRP(s)	• Number of programme participants • Number of tenants obtained • Number of tertiary enrolments • Increase in income levels • Household's perceptions of the effectiveness of the LRP

Indicator	Description	Indicative measurement criteria
Livelihood enhancement	• Review the level of livelihood improvements against a baseline	• Increase in household income • Decrease in food shortages • Increase in quality of health • Increased level of education or skills • Improved access to social amenities
Perceptions of PAPs	• Document changes in PAPs and their household perceptions and evaluate satisfaction levels with the resettlement and compensation processes	• Percentage of PAPs pleased with the compensation process • Percentage of PAPs pleased with the physical displacement process • Percentage of PAPs with positive sentiments towards RNT • Percentage of PAPs with improved quality of life • Track record of grievances being successfully documented and responded to

8.3 Evaluation

For each resettlement process, RNT will undertake the following evaluation activities:

- **Compliance review**. Compliance aimed at establishing whether resettlement implementation is meeting the key objectives and undertakings defined in the RAP and the LRP, and is aligned with relevant company policy, good practice standards and local legal and regulatory requirements;
- **Completion and close-out audit**. The close-out audit follows the completion of the RAP and LRP implementation. The main purpose is to assess whether the resettlement and livelihood restoration processes have been satisfactorily completed in terms of objectives and undertakings, policies, and legislation, and accepted good practice standards; and
- **Post-implementation evaluation**. The objective of post-implementation evaluation is to assess the long-term impact that resettlement has had on project-affected persons and host communities, and whether compensation and livelihood restoration initiatives have achieved the intended benefits sustainably.

9 Conclusion

A Land Acquisition and Resettlement Framework (LARF) forms a first phase of the land acquisition process. It provides an overview of the objectives, principles, policies, procedures, and organisational arrangements for dealing with land access and resettlement for the project.

The LARF also considers national legislation as well as international policies and standards The latter includes the IFC Performance standard (PS) 5 and the IFC Handbook (2023) on land acquisition and involuntary resettlement.

9.1 Land requirement

The anticipated maximum land take for the project is around 1 782.7 ha during the construction phase, and a maximum of around 247 ha during the operation phase. It is important to note that not all construction areas will be required at the same time. The impact of the construction works will be progressive as this sequential work is completed on consecutive lineal progress.

Although the OHL route alignment and substation locations was informed by high-level desktop and site screening to avoid sensitive environmental and social features, physical and economic resettlement is not completely avoidable.

9.2 Estimated physical and economic displacement

The initial site visit in February 2024 revealed that physical relocation might not be necessary for the project, mainly due to the sparse population in the area. These observations suggest that by changing the OHL route and adjusting pylon placement, physical displacement can be nearly eliminated.

It was however observed that a number of pylons may be placed inside maize fields, which will result in economic displacement. It's important to consider that certain crops, like cassava, require around a year to reach harvest readiness. Farmers should still be compensated for the loss, even if the plants are not fully mature. Farming activities can be practiced under the powerline during operations, as long as safe clearances and building restrictions are followed.

However, the reconnaissance site visit was limited in its extent and detail and was used mainly to identify key considerations for the subsequent studies. There, a spatial analysis was also undertaken to determine a preliminary quantification of the houses / structures, as well as agricultural fields that may be affected by the proposed project. The following buffer sizes were applied to the proposed infrastructure:

- 220kV HV (100m buffer);
- MV60 kV (136m buffer); and
- Substations (3ha buffer).

In total, based on the conservative buffers, there could be 450 hectares of farmland and 1,494 houses or structures affected. This total can be broken down further as follows:

- Grove Hydro Dam: No impact;
- Chipindo: 0.33 ha of land and 342 buildings;
- Cuvango: 235.28 ha of land and 432 buildings;
- Jambo: 0.95 ha of land and 326 buildings; and
- HV Lines: 402.76 ha of farmland and 418 houses / structure.

9.3 Optimisation

As part of the ESIA and detailed engineering design works, Pak Yatirim will continue to optimise the alignment and placement of infrastructure with the goal of avoiding physical resettlement, and minimising economic displacement through:

- Spatial analysis in the AoI
- Stakeholder engagement with municipalities, community leaders and PAPs.

9.4 Resettlement planning

Should physical resettlement be required, a detailed planning and implementation program should be developed.

9.5 Livelihood restoration

The project is expected to have an impact (albeit mostly temporary) on people's livelihoods. It will therefore be required to compile a Livelihood Restoration Plan (LRP). The aspect of deforestation should also be considered.

The LRP will detail all aspects of livelihood restoration, and include core projects with detailed scopes of work, implementation arrangements, and monitoring and evaluation criteria. The LRP will contain criteria for the selection of project options, as well as vulnerability criteria and arrangements for project selection by vulnerable groups.

Several rural development agencies / programmes in Angola with which RNT could partner for the LRP, which are discussed in more detail in the SEIA.

Prepared by

SRK Consulting - Certified Electronic Signature
srk consulting
595657/45565/Framework
7993-8406-439-HERL-02/10/2024
This signature has been printed digitally. The Author has given permission for its use for this document. The details are stored in the SRK Signature Database

pp

Tania Oosthuizen (*Pr.Sci.Nat.*)
Principal Scientist

Reviewed by

SRK Consulting - Certified Electronic Signature
srk consulting
595657/45564/Report_LARF
1237-2622-4137-MAVA-01/10/2024
This signature has been printed digitally. The Author has given permission for its use for this document. The details are stored in the SRK Signature Database

Vassie Maharaj
Principal Scientist

10 References

Aurecon. (2020). *ANNA Transmission Project. Environmental and Social Impact Assessment, Angola.*

de Cruz, D. M. (2021, November 25). New Land Register Law is published in Angola.

EPAL. (2019). *Resettlement Policy Framework. Bita Systsm IV Water Supply Scheme - TFS, ESKOA and Tender Documents for the Distribution Metworks of 4CDs.*

ERM. (2019). *Laúca-Bita Transmission Line, Angola: Resettlement and Compensation Action Plan.*

Heritage Foundation. (2024). *Index of Economic Freedom.*

Holisticos. (2019). *Resettlement Action Plan for the 400 KV Transmission Line Project from Belém do Huambo to Lubango Substation.*

IFC. (2007). *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets.*

IFC. (2012). *Performance Standard 5: Land Aquisition and Involuntary Resettlement.*

IFC. (2023). *Good Practice Handbook. Land Acquisition and Involuntary Resettlement.* IFC World Bank Group.

IFC. (2023). *Good Practice Handbook: Land Aquisition and Involuntary Resettlement.*

MINEA. (2022). *Climate Resillience and Water Security Project in Angola (P177004). Resettlement Policy Framework.*

Reddy, G., Smyth, E., & Steyn, M. (2015). *Land Access and Resettlement. A guide to best practice.* Aizelwood's Mill: Greenleaf Publishing.

Reddy, G., Smyth, E., & Steyn, M. (2017). *Land access and resettlement. A guide to best practice. .* Sheffield: Greenleaf Publishing Limited.

SRK (a). (2024). *Social and Environmental Impact Assessment (SEIA) for Cassinga Project.* 595657/SEIA.

SRK (b). (2024). *Stakeholder Engagement Plan for the Cassinga Power Supply Project ESIA. 595657/SEP.*

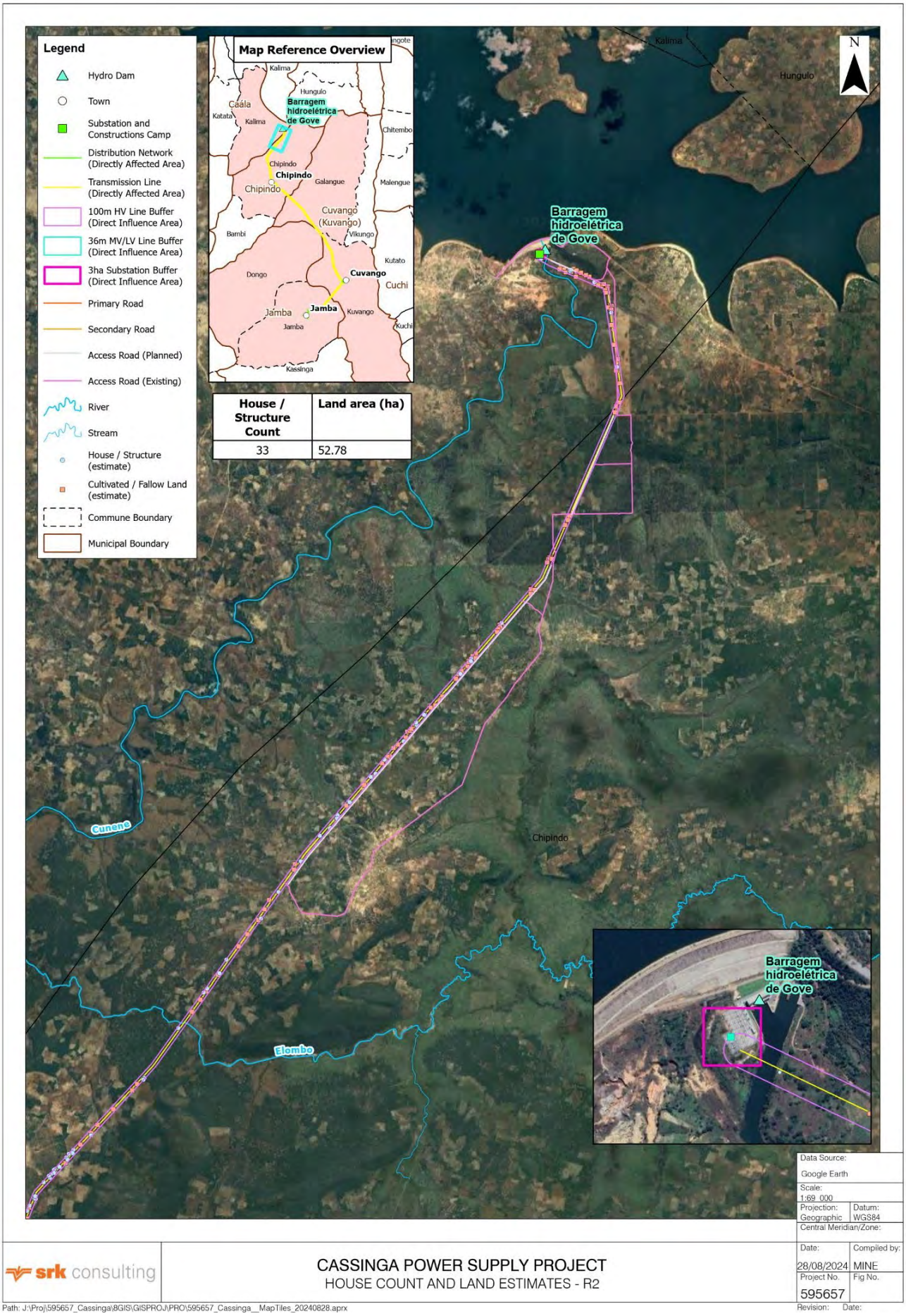
SRK. (2024). *Socio-economic Impact Assessment for the Cassinga Power Supply Project ESIA.* Johannesburg: SRK Consulting (South Africa) (Pty) Ltd.

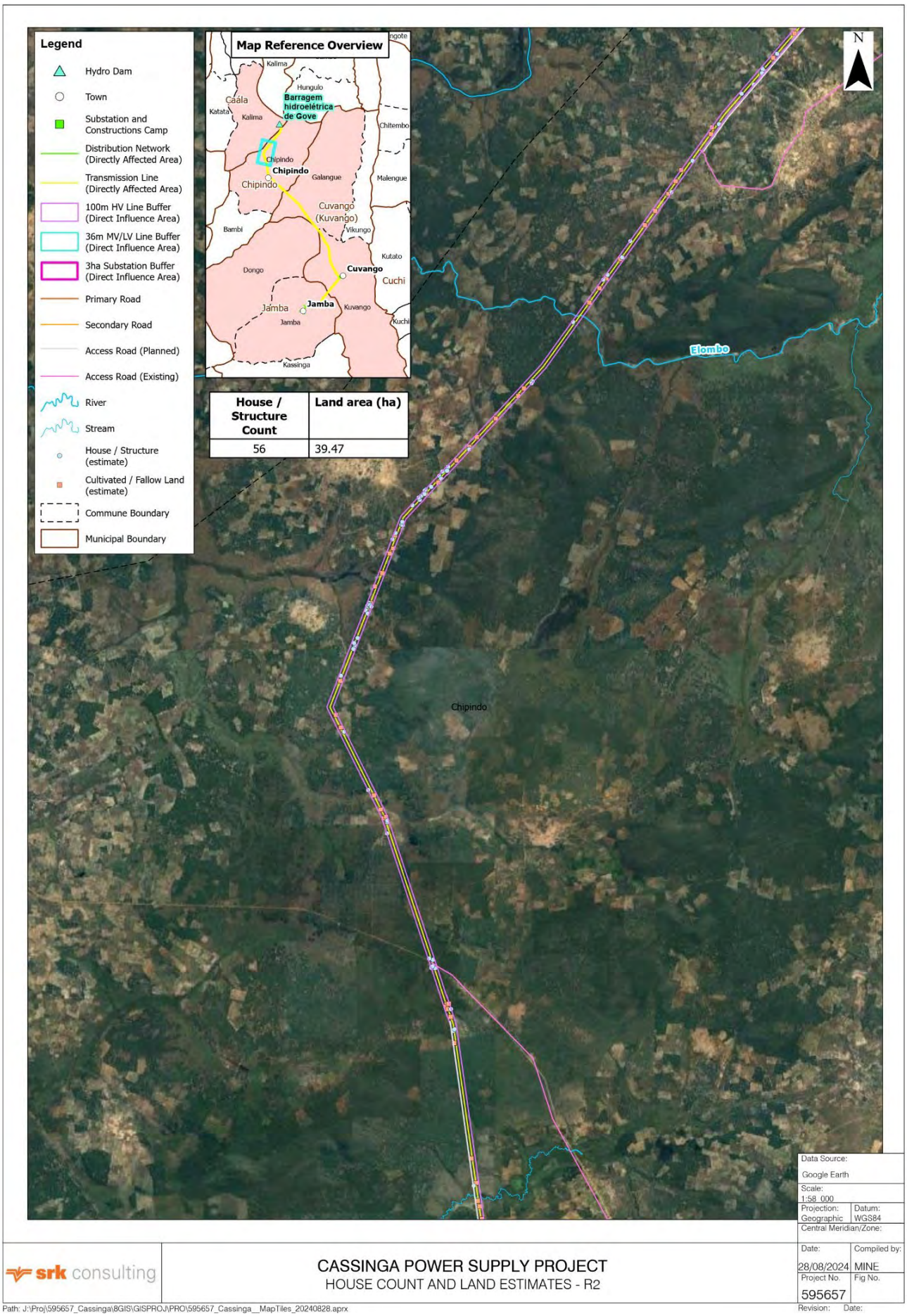
Walmsley, B, B., & Hussleman, S, S. (2020). *Handbook on environmental assessment legislation in selected countries in Sub-Saharan Africa. 4th edition. Pretoria: Development Bank of Southern Africa (DBSA) in collaboration with the Southern Africa Institute for Environmental Assessment (SAIEA).*

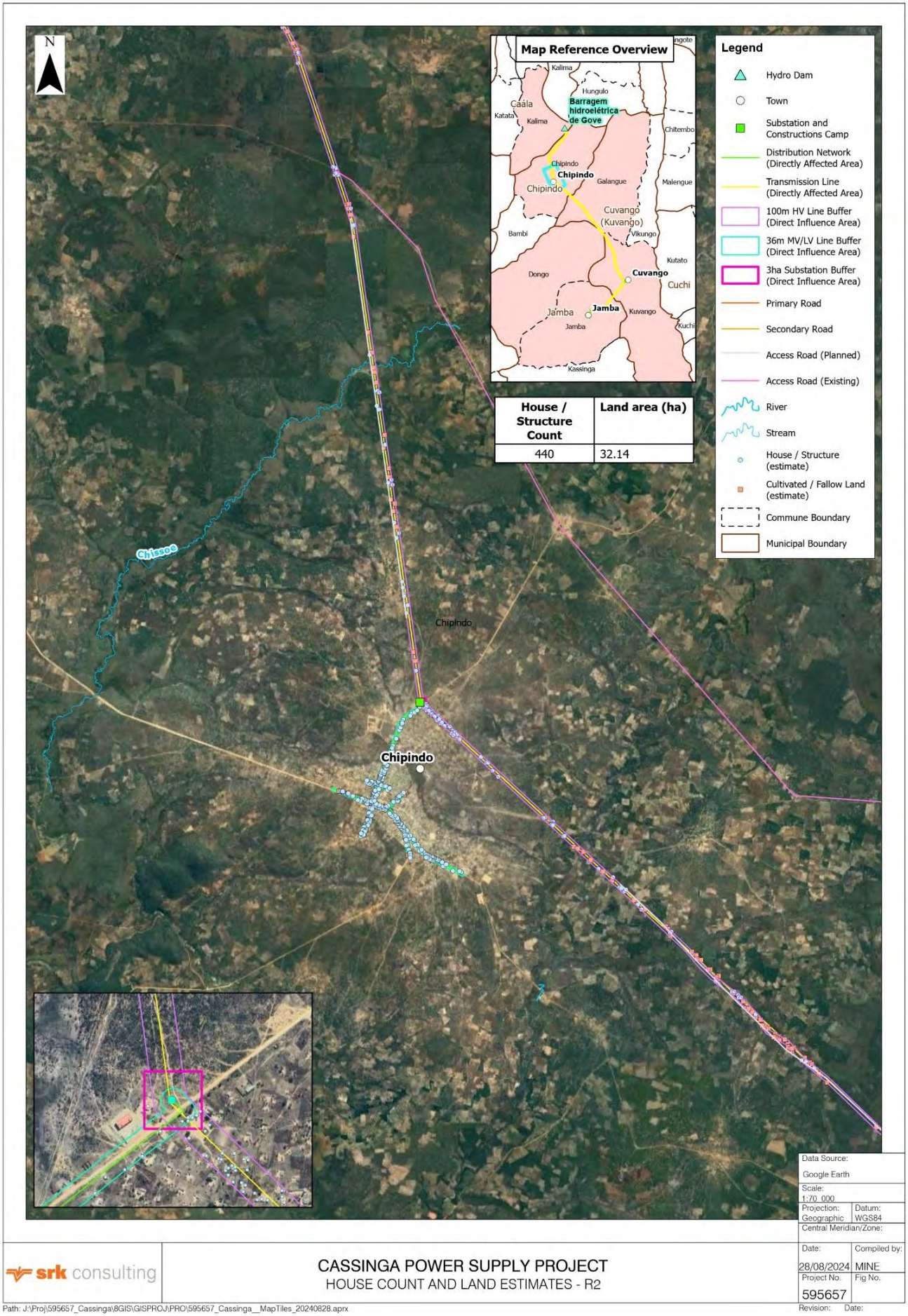
World Bank (a). (2001). *Operational Manual. OP 4.12 Involuntary Resettlement. Revised April 2013.*

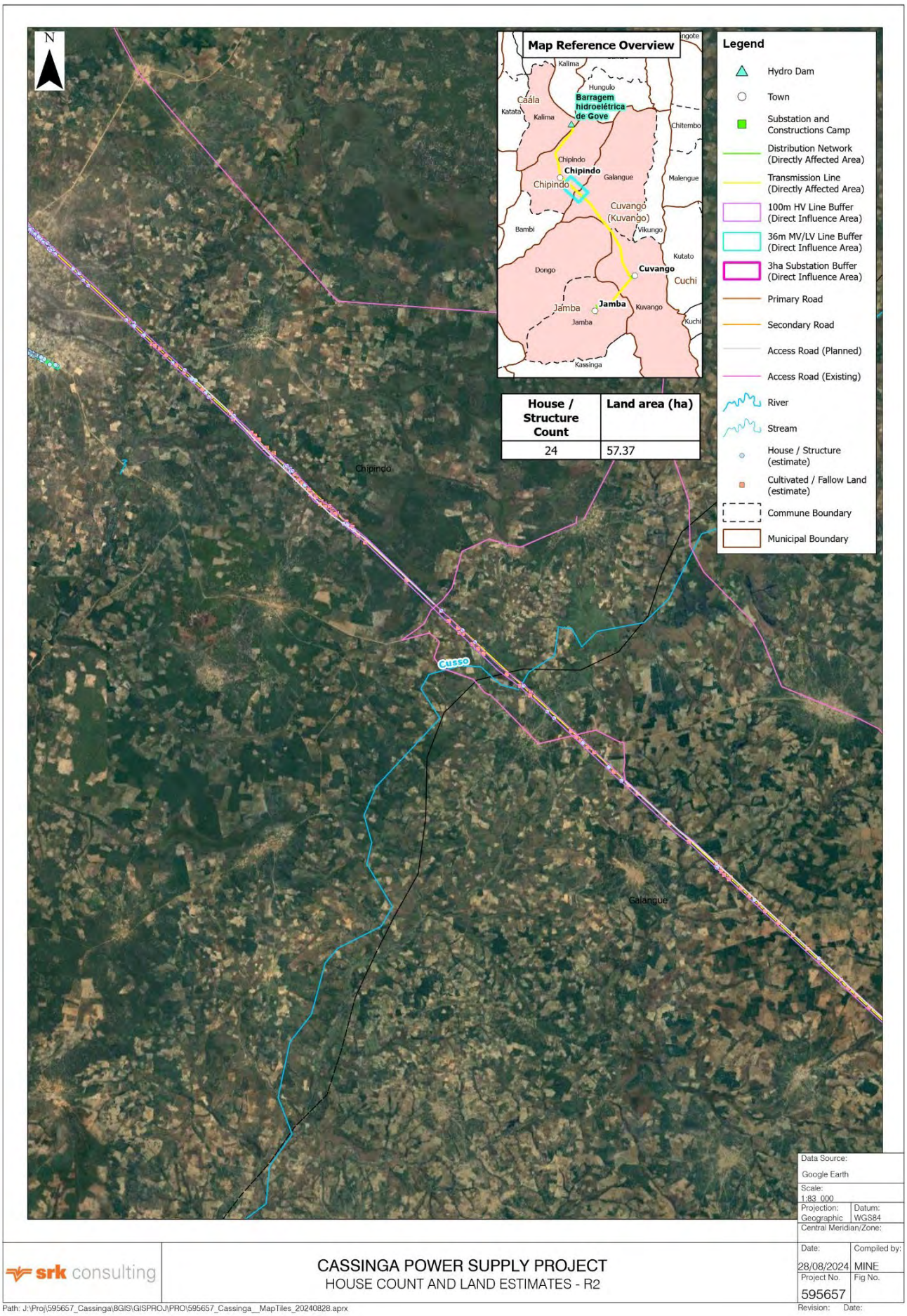
World Bank. (2004). *Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects.* Washington.

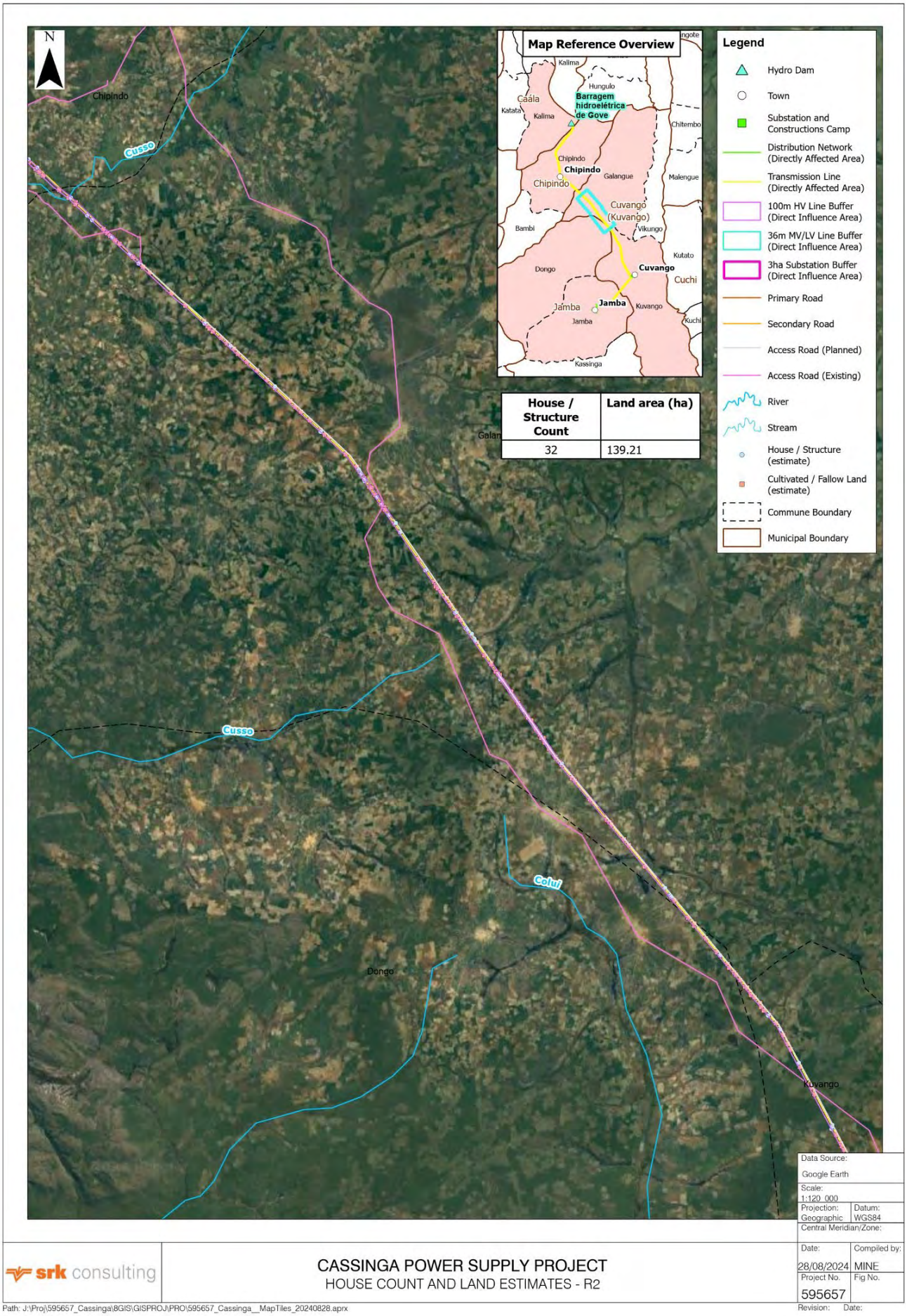
Annexure A: Buffer zone maps

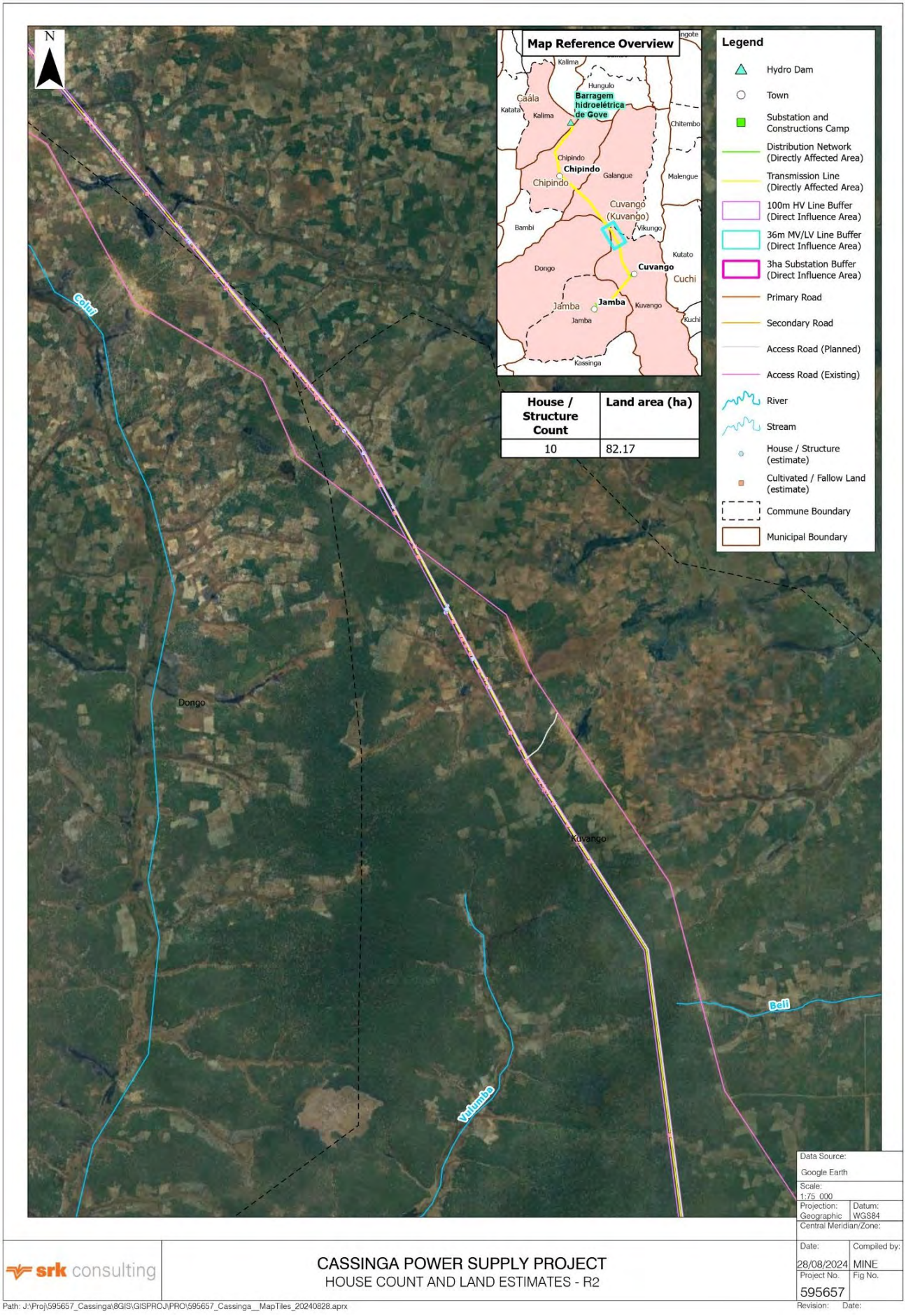

Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Map Reference Overview
Kalima
Hungulo
Caala
Katata
Barragem hidroelétrica de Gove
Chitembo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Bambi
Vikungo
Kutato
Dongo
Cuchi
Jamba
Kuvango
Kassinga
House / Structure Count
Land area (ha)
33
52.78
N
Barragem hidroelétrica de Gove
Cunene
Chipindo
Elombo
Data Source: Google Earth
Scale: 1:69 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx

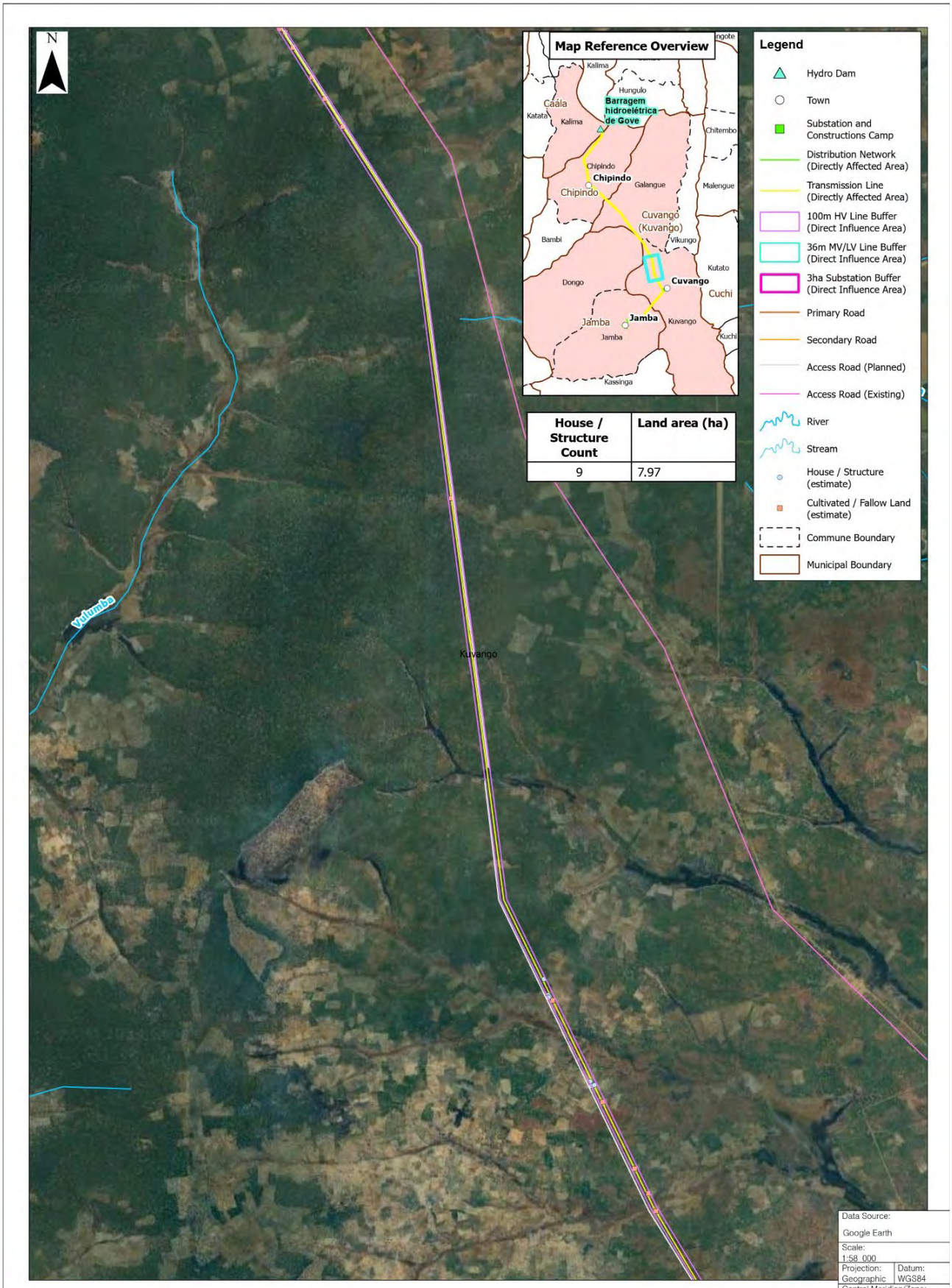

Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Map Reference Overview
Kalima
Hungulo
Caála
Katata
Barragem hidroelétrica de Gove
Chitembo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Bambi
Vikungo
Kutato
Dongo
Cuvango
Cuchi
Jamba
Kuvango
Kassinga
House / Structure Count
Land area (ha)
56
39.47
N
Elombo
Chipindo
Data Source: Google Earth
Scale: 1:58 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx

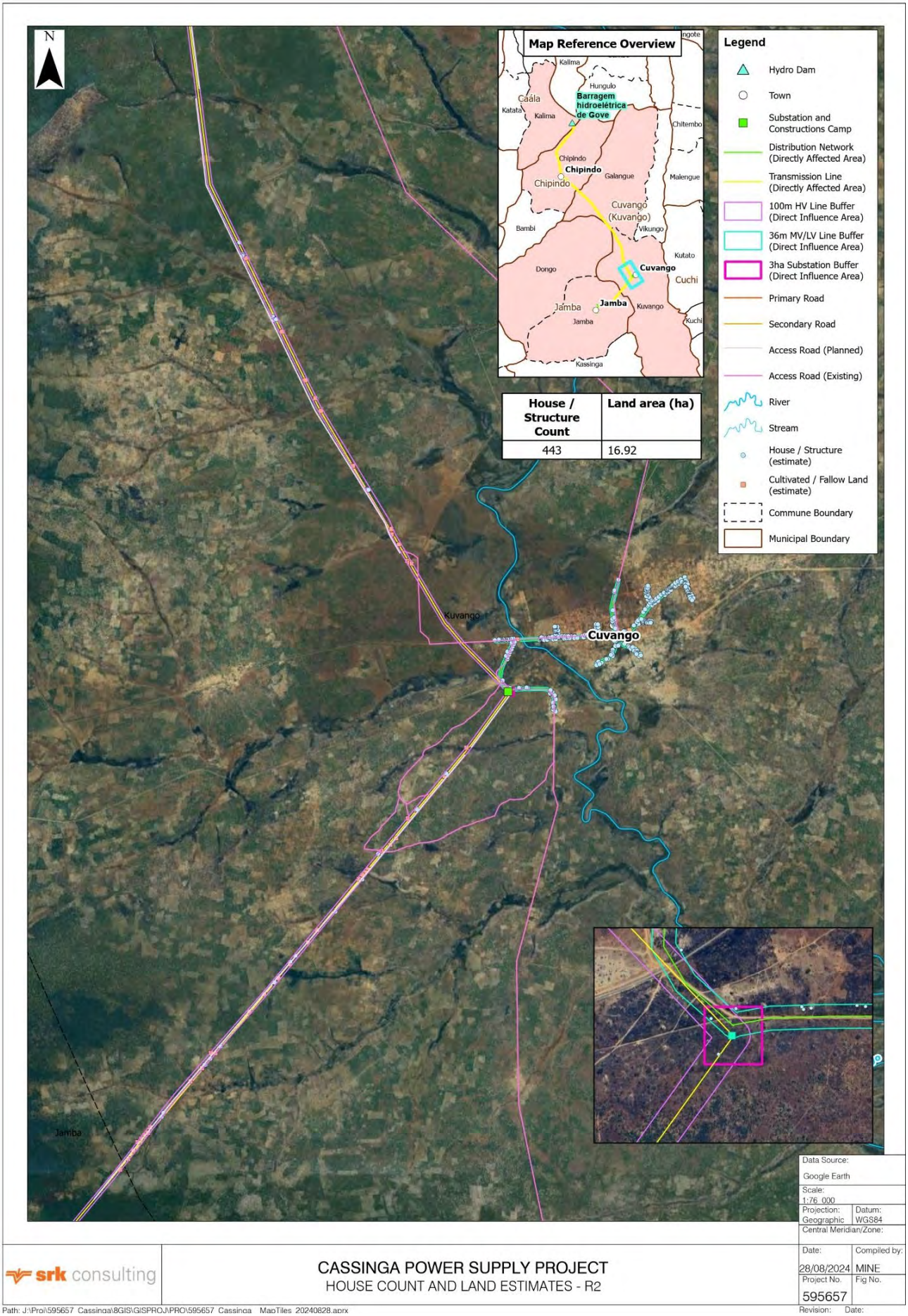

N
Map Reference Overview
Kalima
Hungulo
Caála
Barragem hidroelétrica de Gove
Katata
Kalima
Chitembo
Chipindo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Bambi
Vikungo
Kutato
Dongo
Cuvango
Cuchi
Jamba
Jamba
Kuvango
Jamba
Kuchi
Kassinga
House / Structure Count
Land area (ha)
440
32.14
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Chisseo
Chipindo
Chipindo
Data Source: Google Earth
Scale: 1:70 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx
Revision:
Date:

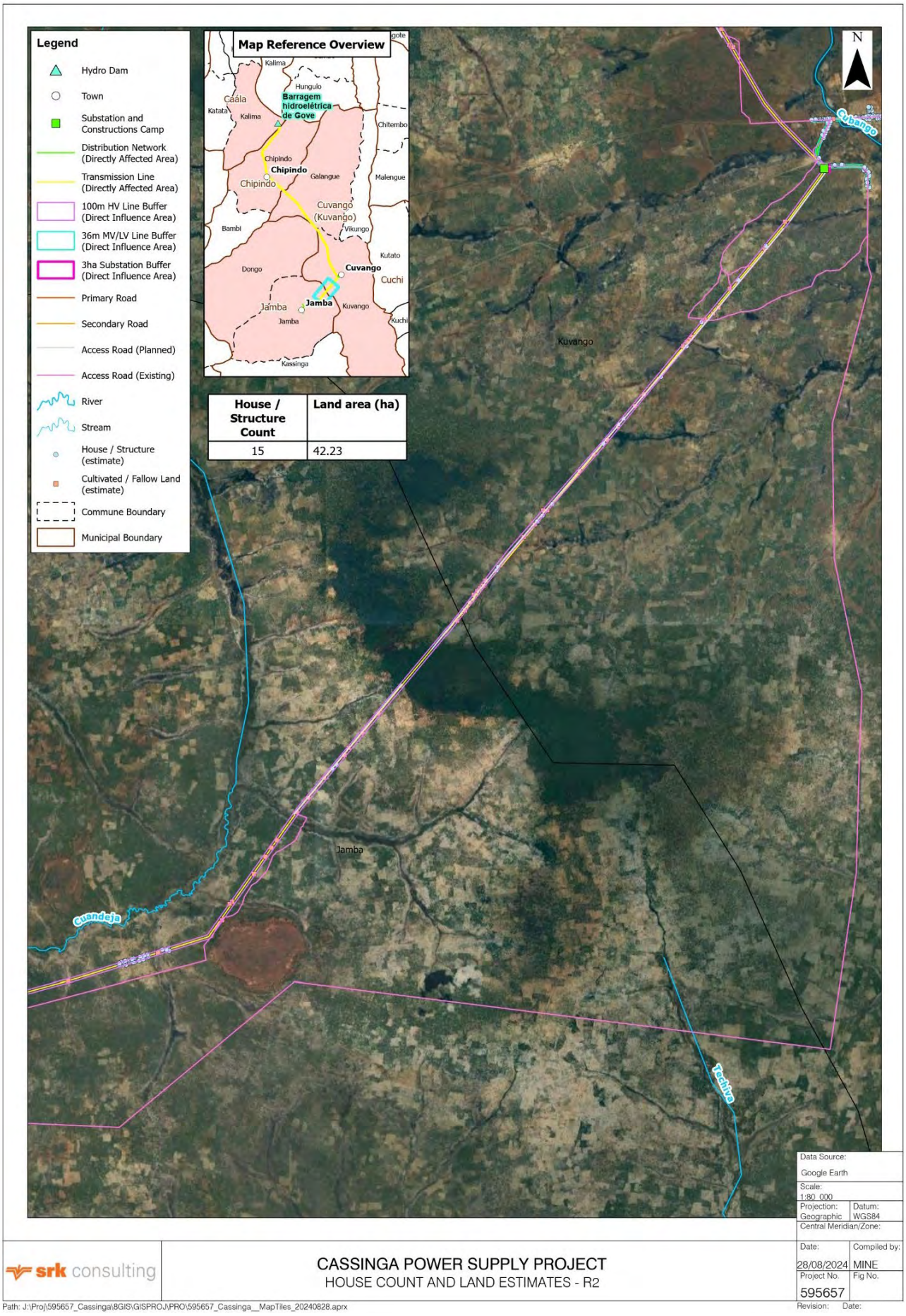

N
Map Reference Overview
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
House / Structure Count
Land area (ha)
24
57.37
Barragem hidroelétrica de Gove
Chipindo
Cuvango (Kuvango)
Cuvango
Jamba
Cusso
Galangue
Data Source: Google Earth
Scale: 1:83 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx

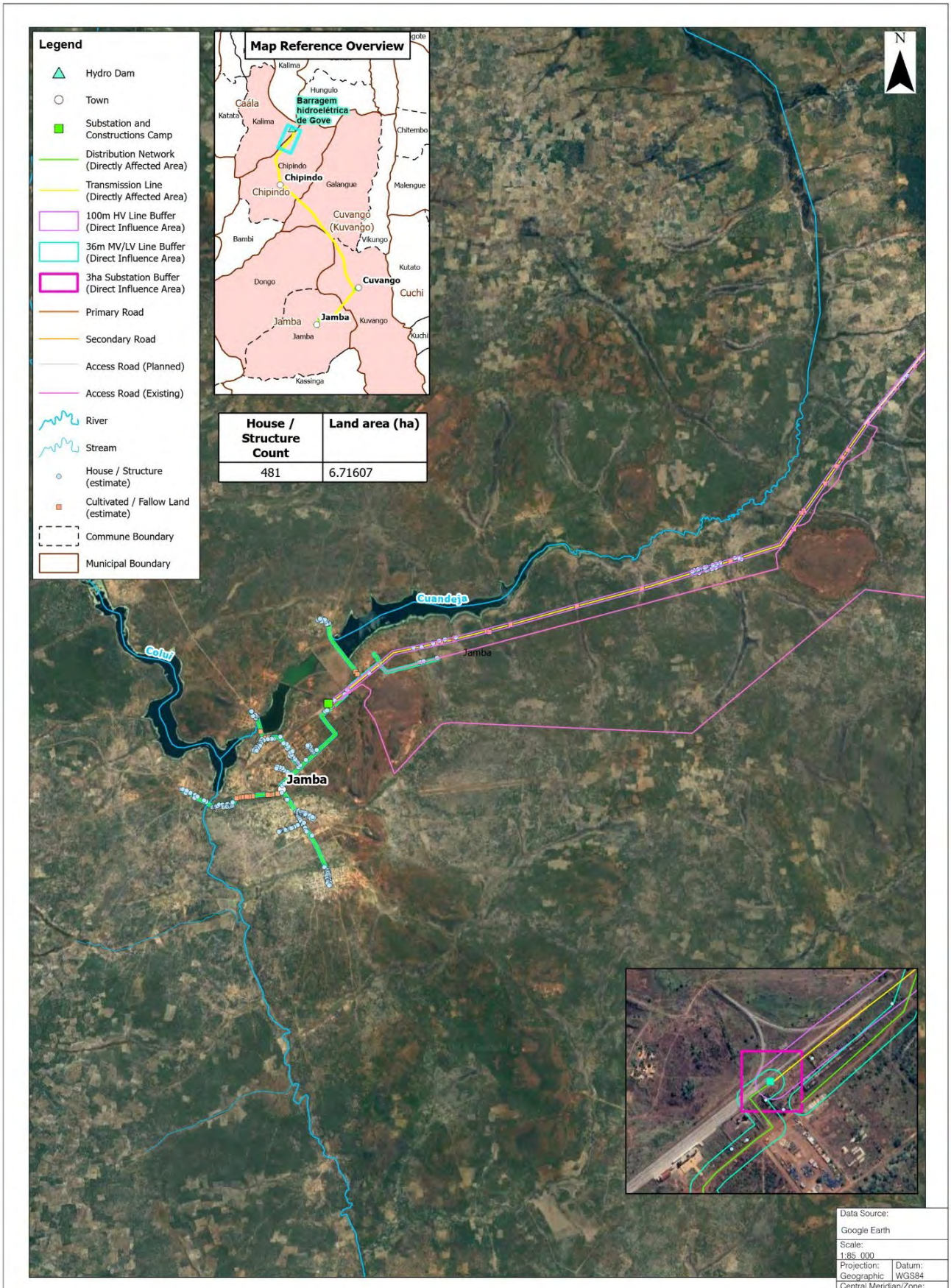

N
Chipindo
Cusso
Cusso
Colui
Dongo
Kuvango
Map Reference Overview
Kalima
Hungulo
Caála
Katata
Kalima
Barragem hidroelétrica de Gove
Chitembo
Chipindo
Chipindo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Bambi
Vikungo
Kutato
Dongo
Cuvango
Cuchi
Jamba
Jamba
Kuvango
Jamba
Kuchi
Kassinga
House / Structure Count
Land area (ha)
32
139.21
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Data Source: Google Earth
Scale: 1:120 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx


N
Map Reference Overview
Kalima
Hungulo
Caála
Barragem hidroelétrica de Gove
Katata
Kalima
Chitembo
Chipindo
Chipindo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Bambi
Vikungo
Kutato
Dongo
Cuvango
Cuchi
Jamba
Jamba
Kuvango
Jamba
Kuchi
Kassinga
House / Structure Count
Land area (ha)
10
82.17
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Colui
Dongo
Kuvango
Beli
Vuluindo
Data Source: Google Earth
Scale: 1:75 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx
Revision:
Date:


N
Map Reference Overview
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
House / Structure Count
Land area (ha)
9
7.97
Kalima
Hungulo
Caála
Barragem hidroelétrica de Gove
Katata
Chitembo
Chipindo
Galangue
Malengue
Cuvango (Kuvango)
Vikungo
Bambi
Kutato
Dongo
Cuvango
Cuchi
Jamba
Kivango
Kassinga
Kuvango
Data Source: Google Earth
Scale: 1:58 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx


N
Map Reference Overview
Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
House / Structure Count
Land area (ha)
443
16.92
Cuvango
Kuvango
Jamba
Chipindo
Barragem hidroelétrica de Gove
Data Source: Google Earth
Scale: 1:76 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga_MapTiles_20240828.aprx


Legend
Hydro Dam
Town
Substation and Constructions Camp
Distribution Network (Directly Affected Area)
Transmission Line (Directly Affected Area)
100m HV Line Buffer (Direct Influence Area)
36m MV/LV Line Buffer (Direct Influence Area)
3ha Substation Buffer (Direct Influence Area)
Primary Road
Secondary Road
Access Road (Planned)
Access Road (Existing)
River
Stream
House / Structure (estimate)
Cultivated / Fallow Land (estimate)
Commune Boundary
Municipal Boundary
Map Reference Overview
Barragem hidroelétrica de Gove
Chipindo
Cuvango (Kuvango)
Jamba
Kassinga
Kuvango
Jamba
Cuandeja
Cubango
Tchiva
N
House / Structure Count
Land area (ha)
15
42.23
Data Source: Google Earth
Scale: 1:80 000
Projection: Geographic
Datum: WGS84
Central Meridian/Zone:
Date: 28/08/2024
Compiled by: MINE
Project No. 595657
Fig No.
Revision:
Date:
srk consulting
CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2
Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx



Data Source:	Google Earth
Scale:	1:85 000
Projection: Geographic	Datum: WGS84
Central Meridian/Zone:	
Date: 28/08/2024	Compiled by: MINE
Project No. 595657	Fig No.
Revision:	Date:

srk consulting

CASSINGA POWER SUPPLY PROJECT
HOUSE COUNT AND LAND ESTIMATES - R2

Path: J:\Proj\595657_Cassinga\8GIS\GISPROJ\PRO\595657_Cassinga__MapTiles_20240828.aprx

Annexure B: Contents of a RAP

1 Introduction
2 Project description and predicted impacts
3 Legal and regulatory framework
4 Principles, objectives and process
5 Socio-economic baseline
6 Analysis of displacement impacts
7 Eligibility matrix and compensation strategy
8 Host site selection
9 Developing a new resettlement village
10 Housing design
11 Replacement land
12 Livelihood restoration planning
13 Stakeholder engagement
14 Grievance management
15 Monitoring and evaluation
16 Implementation, scheduling and financing

Appendix P: Occupational Health and Safety Plan (OHSP)

Cassinga Electrical Power Supply ESIA – Occupational Health and Safety Management Plan

Report Prepared for

PAK YATIRIM

Report Number 595657

Report Prepared by

srk consulting

September 2024

Cassinga Electrical Power Supply Project

Occupational Health and Safety Management Plan

PAK YATIRIM

SRK Consulting (South Africa) (Pty) Ltd
SRK House
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

Tel: +27 (0) 11 441 1111
E-mail: Johannesburg@srk.co.za
Website: www.srk.co.za

SRK Project Number 595657
September 2024

Compiled by:

K Moodley
Senior Environmental Consultant

Email: KMoodley@srk.co.za

Peer Reviewed by:

D Kilian
Principal Environmental Consultant and Project Partner

Authors:

J Goeller, K Moodley

Abbreviations

m	Metres
PCB	Polychlorinated biphenyls
POP	Persistent Organic Pollutants
PPE	Personal Protective Equipment
RoW	Right of way
SE	Supervising Engineer
SIMOPs	Simultaneous Operations
SRK	Steffen, Robertson and Kirsten Consulting

Glossary of Terms

Competent Person	A person who has sufficient technical knowledge or experience to enable him to avoid danger. A person in training is not considered competent.
Dead	The term used to describe a circuit / equipment to indicate that a voltage is not applied
Earth Grid	A system grounding electrode consisting of inter connected connectors buried in the earth to provide a common ground for electrical devices and metallic structures.
Earth Mat	A grounding system formed by a grid horizontally buried conductor / plate and which serves to dissipate the earth fault current to earth and also as equipment bonding conductor system.
Live part	A conductor or conductive part intended to be energized in normal use including a neutral conductor.
Neutral conductor	A conductor connected to the neutral point of a system and capable of contributing to the transmission of Electrical Energy

Table of Contents

Abbreviations ii
Glossary of Terms iii
1 Introduction 1
1.1 Overview of the project 1
1.2 Purpose of the study 1
2 Key legislative frameworks 4
2.1 Angola Legislative requirements 4
2.2 International Finance Corporation (IFC) Standards 4
3 Occupational Health and Safety 5
3.1 General Safety Precautions 5
3.1.1 General housekeeping 5
3.1.2 Work equipment 5
3.1.3 Protective equipment 7
3.1.4 Safety and health signs 7
3.1.5 Fire protection 7
3.1.6 Transportation 8
3.1.7 Ropes 8
3.1.8 Excavation 9
3.1.9 Scaffolding 9
3.1.10 Electric and Magnetic Fields 9
3.1.11 Working in Confined Spaces 9
3.2 Simultaneous Operations 10
3.2.1 Risks associated with SIMOPs 10
3.2.2 Procedures for coordination, communication, and hazard management for SIMOPs 10
3.2.3 Framework for training on SIMOPs and implementation of monitoring 11
3.3 Health management 11
3.3.1 Organizational requirements on health and safety 12
3.3.2 Security management 12
3.4 Power Line Safety Precautions 12
3.4.1 PPE when working with overhead conductors 12
3.4.2 Working at heights 12
3.4.3 Stringing of conductors 13
3.4.4 Rigging and hoisting 14
3.4.5 Earthing 14
3.4.6 Earthing of overhead conductors 15
3.4.7 Earthing and short –circuiting mains 15
3.4.8 Remove earth connections 15
3.4.9 Working on lower portion of towers carrying live conductors 15
3.4.10 Conductor work on poles and towers 16

3.4.11 Working on transformers 16
3.4.12 Lighting arrestor 16
3.5 Environmental 16
3.6 Chemical 17
3.6.1 PCB and other 17
3.7 Handling Incidences 18
3.8 Responsibility for Machinery 18
3.9 Notification of Accidents 19
3.9.1 Risk Identification and Mitigation 19
4 Conclusion 25
5 References 26

List of Tables

Table 3-1: OHS hazards, mitigation measures and responsibilities 21

List of Figures

Figure 1-1: Locality map 3

1 Introduction

The Republic of Angola, through its Ministry of Energy and Water (MINEA), is embarking on a significant enhancement of its electrical infrastructure with the implementation of the Cassinga Electrical Power Supply Project. This initiative is geared towards enhancing electric power provision across multiple communities within the Province of Huíla. The primary aim of the project is to facilitate power supply for both the Cassinga Project itself and the neighbouring communities. This will be achieved through the construction of three new substations and the establishment of a new 170 km 220 kV Overhead Line (OHL) network extending from Gove to Chipindo, Cuvango, and Jamba. For electrification of the villages (i.e., Chipindo, Cuvango and Jamba), the Project will include a 30 kV Medium Voltage OHL network to the new substations and a Low Voltage network to supply electricity to 1 000 homes in each of the three villages.

SRK Consulting (South Africa) (Pty) Ltd. (SRK) has been appointed by PAK YATIRIM to undertake an Environmental and Social Impact Assessment (ESIA) for the Cassinga Project in Angola. The ESIA process is undertaken in terms of Angolan environmental laws, and in compliance with the World Bank Group Environment, Health and Safety (EHS) Guidelines and International Finance Corporation (IFC). A specialist Air Quality Study in the form of a qualitative desktop assessment is required as part of the Environmental Authorisation by the Environmental Protection Agency (EPA) of Angola.

1.1 Overview of the project

The Cassinga Project is structured around the establishment of a new 220 kV OHL network, extending from Gove to Cuvango, and further branching out to Chipindo and Jamba (Figure 1-1). This network includes the construction of new substations in Chipindo, Cuvango, and Jamba, each equipped with a capacity of 220/30 kV - 20 MVA, to efficiently distribute the generated power to these villages. The Project further includes the laying down of medium voltage overhead lines for distribution, along with the necessary low voltage network, public lighting, and home connections within the communities of Chipindo, Cuvango, and Jamba. The overarching goal is to create a robust and reliable electric power supply system that not only caters to the current demands but is also scalable to accommodate future expansions, including the prospective OHL 220 kV interconnection to Cuchi/Menongue.

An estimated power demand of 80 MW has been calculated for the Cassinga Project, with an additional 10 MW anticipated for local community demands. This projection underscores the critical nature of the project in addressing the power needs of the region, fostering economic growth, and improving the quality of life for its residents. The Cassinga Electric Power Supply Initiative represents a significant leap forward in Angola's energy infrastructure development. This project is poised to significantly enhance the electric power distribution network in Huíla Province, catalysing economic development and improving the livelihoods of the Angolan people.

1.2 Purpose of the study

The objective of the Cassinga Project has a primary focus on bolstering the region's energy infrastructure, particularly through the construction, operation, and eventual decommissioning of the powerline. This initiative underscores the critical importance of sustainable development and meeting the energy demands of the local populace.

The construction and operation of the Project involves various occupational health and safety (OHS) risks. Workers will be engaged in high-risk activities, such as working from heights, handling heavy machinery, exposure to high-voltage electrical systems, and operating in remote areas possibly contaminated with unexploded ordnances (UXOs). The environmental conditions, including extreme temperatures and exposure to dust and noise, add additional layers of risk.

The Occupational Health and Safety Plan (OHSP) applies to the construction and operational phases of the Project. The main purpose of the Plan is to ensure that zero harm is committed to employees, contractors, suppliers and the public during these phases, particularly considering the complexities introduced by Simultaneous Operations (SIMOPs). To meet this overall objective, the OHSP

- Describes the generic controls that will be implemented to mitigate construction, operational and SIMOPs-related risks that could impact on the overall safety performance of the Project and the safety of the public;
- Describes the health and safety organisation and communication structure; and
- Describes the audit and review process for health and safety.

Figure 1-1: Locality map

2 Key legislative frameworks

2.1 Angola Legislative requirements

Presidential Decree No. 117/2020, issued on 22 April in Angola, establishes comprehensive regulations governing Environmental and Social Impact Assessment (ESIA) and Environmental Licensing Procedures for both public and private projects. These regulations are aimed at managing projects that may potentially lead to significant environmental and social impacts due to their inherent characteristics, location, or scale. Notably, this Decree nullifies the previous regulations outlined in Decree No. 51/04 of 23 July regarding Environmental Impact Assessment and Decree No. 59/07 of 13 July concerning Environmental Licensing.

Key provisions of this legislation include:

- Mandating the registration of projects within the integrated environmental system, a digital platform administered by the Ministry of Environment (Article 6);
- Categorizing projects into five categories (A to E) for licensing purposes (Article 7);
- Delegating evaluation responsibilities from the central authority (Ministry of Environment) to local administrative services and provincial governments, along with the pre-evaluation of projects for subsequent categorization (Article 8, 9);
- Introducing the requirement of an Environmental Pre-Feasibility Study and Scope Definition (Scoping Report) specifically for Category A projects (Article 12); and
- Outlining the essential content for a Simplified Environmental Study (SES) in Article 15, with the necessity of submitting Terms of Reference for such studies to the provincial environmental authority.

Additionally, General Labour Law (Law No. 7/15 of June 15th) and the Occupational Health and Safety System (Decree No. 31/94 of May 31st) need to be considered.

2.2 International Finance Corporation (IFC) Standards

The IFC's EHS guidelines serve as technical reference materials that offer both general and industry-specific examples of recognised international best practices. These guidelines outline acceptable performance levels and measures for the IFC and World Bank, emphasising solutions that are feasible with current technology at reasonable costs. The guidelines are designed to guide efforts in preventing, reducing, and managing EHS impacts throughout the construction, operational, and decommissioning stages of a project or facility. In instances where the regulations of the host country, such as Angola, deviate from the standards set in the EHS Guidelines, projects are required to comply with the more stringent requirements. Should less strict standards be deemed appropriate due to unique project conditions, a comprehensive justification for any alternative approaches must be provided. The General EHS Guidelines offer insights into broad EHS issues that could be relevant to various projects.

Furthermore, sector specific EHS Guidelines have been established to address the unique challenges of different industries. For this project, the applicable sector-specific guidelines will be incorporated into the ESIA process. Particularly relevant to this project and its ESIA are the IFC EHS Guidelines for Electric Power Transmission and Distribution.

3 Occupational Health and Safety

3.1 General Safety Precautions

It is employer's and/or contractor's obligation that every possible measure is taken to ensure the safety of the work equipment, that personal protective equipment (PPE) is made available to workers and that safety signs are adequate.

3.1.1 General housekeeping

To ensure good housekeeping the following precautions should be observed:

- Walkways, stairways, fire escapes and all other passageways shall be kept clear of all obstructions;
- Tools and materials should not be placed where they may cause tripping or stumbling hazards or where they may fall and strike anyone below;
- Puddles of oil and water create slipping hazards and should be cleaned up promptly;
- Nails in boards, such as those removed from scaffolds, forms and packing boxes, constitute hazards and should be removed. The boards should be carefully stacked or stored;
- Dirty and oily waste rags should be deposited in approved containers and disposed of as soon as practical to avoid fire hazard;
- Broken light bulbs, glass metal and scrap and other sharp objects should be disposed of in places or containers provided specially;
- Discarded fluorescent and other gas filled tubes shall be disposed of safely in containers specifically provided;
- Adequate lighting (natural / artificial / or both) shall be provided to perform work; and
- Adequate ventilation shall be provided in workplaces.

3.1.2 Work equipment

During the selection of the work equipment the employer and/or contractor shall pay attention to the specific working conditions which exist at the workplace, especially in relation of safety and health of the workers. A brief list of work equipment safety issues is given below:

- Work equipment control devices which affect safety must be clearly visible and identifiable and appropriately marked where necessary;
- Work equipment presenting hazards due to emissions of gas, vapour, liquid or dust must be fitted with appropriate containment and/or extraction devices near the sources of the hazard;
- Where there is a risk of mechanical contact with moving parts of work equipment which could lead to accidents, those parts must be provided with guards or devices to prevent access to danger zones or to halt movements of dangerous parts before the danger zones are reached;
- Work equipment may be used only for operations and under conditions for which it is appropriate;
- Work equipment must bear the warnings and markings essential to ensure the safety of workers;
- All work equipment must be appropriate for protecting workers against the risk of the work equipment catching fire or overheating, or of discharges of gas, dust, liquid vapour or other substances produced, used or stored in the work equipment;
- All work equipment must be appropriate for preventing the risk of explosion of the work equipment or of substances produced, used or stored in the work equipment;
- All work equipment must be appropriate for protecting exposed workers against the risk of direct or indirect contact with electricity;
- Mobile work equipment such as Bulldozer or Road Rollers with ride-on workers must be designed to restrict, under actual conditions of use, the risks arising from work equipment roll-over;
- Fork-lift trucks carrying one or more workers must be adapted or equipped to limit the risk of the fork-lift truck overturning;

- Self-propelled work equipment, such as percussion drills, which may, when in motion, engender risks for persons must have facilities for unauthorized start-up;
- Machinery for lifting loads, such as a crane, must be clearly marked to indicate its nominal load, and must where appropriate be fitted with a load plate giving the nominal load for each configuration of the machinery; and
- Work equipment must be erected or dismantled under safe conditions, in particular observing any instructions which may have been furnished by the manufacturer.

Hand tools

- Employees should use only those tools and equipment, which are in good condition and only of the purpose for which they are designed. Where proper and safe tools are not available for the work at hand, then employee shall report the fact to his or her supervisor;
- Tools, which develop defects while in use, should be removed from service, tagged and not used again until brought in good condition;
- Impact tools such as chisels, drills, hammers and wedges with mushroom heads should not be used until they have been reconditioned;
- Hammers, axes, shovel and similar tools should not be used if handles are loose, cracked or splintered;
- Defective wrenches such as open end and adjustable wrenches with spread jaws or pipe wrenches with dull teeth should not be used, as they are likely to slip;
- Pipe or other extensions should not be used on a wrench handle to increase the leverage unless the wrench is specifically designed for such an extension;
- Portable electric tools should be equipped with 3 - wire cord having the ground wire permanently connected to the tool frame and is to be grounded at the other end;
- Metal rulers, metal tape conductors or conductors containing wires shall not be used around electric conductors or equipment; and
- All tools carried on trucks should be inspected each month and defective tools repaired or replaced.

Ladders

- Inspect the ladder before use;
- Ensure firm footing;
- Secure at the top or have a man at the foot;
- Ensure correct angle (75 degree) or position ladder 1 foot out at base for every 1.2 metres of vertical height;
- Ensure that the ladder rises at least 1 metre above landing point;
- Face the ladder when climbing or descending;
- Ensure rubber shoes are attached at each end of the ladder;
- Before erecting, confirm that no electrically charged conductor is passing nearby;
- When using the ladder, always have at least 3 points of contact. For example, both feet and one hand or both hands and one foot; and
- Do not lean excessively to the side of the ladder to reach something. Rather move the ladder closer.

Protective barrier (temporary)

When the work is conducted along public streets or highways, pedestrian and vehicular traffic shall be warned by signs and flags by day and red lights or flares by night. Wherever necessary, signalmen should be provided.

Earthing devices

- Only approved earthing devices shall be used in all work;
- Care shall be taken to maintain earthing by ensuring condition of clamps; and
- Neon conductor tester may be used to check the bus bar area, conductors, overhead conductors but prior to use it should be ensured that tester is in good condition.

3.1.3 Protective equipment

Personal protective equipment is suggested for use when the risks cannot be avoided or sufficiently limited by technical means. All personal protective equipment must

- Be appropriate for the risks involved, without itself leading to any increased risk;
- Correspond to existing conditions at the workplace; and
- Fit the wearer correctly after any necessary adjustment.

The employer and/or contractor shall provide adequate and approved PPE for various jobs depending upon the hazard. The centralized procurement of PPE shall be made which will ensure the quality as per respective standards. The employer/contractor shall conduct a risk assessment to determine whether PPE is required in any area of work. Workers shall be informed of all measures to be taken. Consultation and participation shall take place on the matters related to the use of the protective equipment. The employer/contractor must erect signage to remind workers of the PPE required in areas of work.

A partial list of protective gear to be worn by the workers at designated work areas are:

- Head Protection: Protective helmets will be put on at all times mainly at construction sites, under scaffolds, erection and stripping of formworks, etc., where there are possibilities of head injuries from falling/flying objects;
- Hearing Protection: Ear plugs or earmuffs should be worn in areas where exposure to high noise level is expected. Examples of such activities include percussion drill, bolt driving, etc.;
- Eye and Face Protection: Spectacles, goggles, welding aprons, face shield or arc-welding mask with hand masks, whichever is appropriate, should be worn at times when percussion drilling, spray painting, welding or similar activities are in progress at the field;
- Respiratory Protection: Where exposure to harmful or toxic gases is likely the workers should wear gas masks, dust filters, or insulating appliances with air supply, whichever is appropriate. · Hand and Arm Protection: In the work involving piercing, cutting or vibration. For protection against toxic chemicals special chemical resistant gloves should be worn. Over sleeves must be worn to protect arms;
- Foot Protection: Working on or under scaffolds, roof works, formwork erection and dismantling safety shoes/boots are essential protective measures;
- All safety devices should be checked before starting work;
- Safety equipment should be tested at frequent intervals to ensure that equipment would provide the safety desired;
- It is the responsibility of supervisor to ensure the usage of PPE; and
- PPE shall not be carried / stored with tools etc. to avoid damage to them.

3.1.4 Safety and health signs

Safety and health signs may include: prohibition sign, warning sign, mandatory sign, emergency escape sign, first-aid sign, information sign, supplementary signboard, safety colour, symbol, pictogram, illuminated sign, acoustic signal, verbal communication and hand signals

3.1.5 Fire protection

To prevent fire and explosions

- Waste paper, rags and other combustible material should not be allowed to accumulate;

- Flammable liquids shall be kept in approved safety cans and identified by proper labels;
- Varnish, paints, lacquers and thinners are highly flammable and should be stored away from all open flames or possible sources of ignition. Matches and open flames should not be used where varnish paint or lacquer is being applied with a spray gun;
- Open flames and smoking are prohibited in all areas where flammable liquids or gases are stored or being used. Such areas shall be posted with appropriate warning signs;
- All employees should be familiar with the location and proper use of fire extinguishers in their work area; and
- No employee should smoke or use matches or open flames on customer's premises unless it is positively known that such action do not conflict with the customer's rules.

Fire and fire protection

How to use a Fire Extinguisher:

- Follow the steps "P-A-S-S ";
- P – Pull the pin, i.e. pull the pin at the top of the extinguisher;
- A – Aim the nozzle low, i.e. aim the nozzle or the outlet towards the base of the fire. Some hose assemblies are clipped to the body of the extinguisher, then release the hose and point;
- S – Squeeze the level above the handle. Release to stop the flow. Some extinguishers have a button instead of a lever; and
- S – Sweep from side to side. Move toward the fire, aiming low at its base. Sweep until all flames are extinguished. Place any fire extinguisher that has been used on its side on the floor. It should be collected and recharged after the fire scene is secure.

3.1.6 Transportation

- Vehicles should be kept in good operating condition and driven in a safe manner so as to prevent injury and save damage or loss of valuable equipment;
- Only authorised personnel with a driving permit or license shall be allowed to operate a vehicle;
- Every driver shall be thoroughly familiar with and comply with the state/city traffic laws covering the territory where he or she operates;
- Before operating a company vehicle each driver should make sure that it is in a proper operating condition. Vehicle inspection sheets shall be provided and each driver shall be required to do inspections as per the inspection sheet before operating the vehicle;
- Before filling the fuel tank the engine should always be shut off. The hose nozzle should be kept in contact with the tank to avoid static sparks;
- Mobile phones should be switched off while in the petrol / diesel station;
- Park the vehicle on the proper side of the street;
- When parking along a highway at night, light shall be left on but dimmed;
- Before leaving a parked vehicle, always remove the ignition key to prevent theft or unauthorized starting of vehicle;
- Wheel wedges shall be used when parking vehicles at inclines, to avoid vehicles from rolling backwards, in the event of a handbrake failure;
- Loading of vehicles should not exceed their rated capacity and objects should not be permitted to extend beyond the sides; and
- Passengers must be transported seated and provided with seat belts. The number of passengers must not exceed that authorised for the vehicle.

3.1.7 Ropes

Fibre and wire rope shall be properly cared for to retain its strength and lasting quality. The following precautions will preserve the strength and life of rope:

- Where a rope sling passes over sharp edges, pads should be used to protect the fibres against cutting and undue stress;
- Do not drag rope on the ground unnecessarily as dirt chafes the fibres;

- Do not use too small a sheave;
- Do not use sheaves with rough surface or broken edges;
- Do not let rope slip on a drum or lie idle on a moving drum;
- Do not place kinked rope under stress;
- Do not allow rope to unravel. Finish the ends;
- Do not tie the knobs where splices should be used;
- Do not allow ropes to become oil-soaked nor exposed to acid or corrosive substances;
- Do not allow rope to remain dirty or gritty. Wash and dry;
- Do not allow rope to remain exposed to weather any more than necessary. Carefully dry rope when it becomes wet; and
- Do not use excessive heat when drying fibre rope.

3.1.8 Excavation

- Proper and adequate timber shoring and bracings shall be provided to prevent sliding or slipping of loose or unstable earth, rock or other material or caving in of excavation;
- Under cutting of banks of trenches and other excavations shall be avoided;
- Excavated material shall be dumped away from the edge of the excavated trench to avoid the slipping of the excavated material into the trench. Effort shall be made where possible to put excavated material on one side of the trench, for ease of access on the other side;
- Excavations shall be properly fenced to protect men and animals from falling in; and
- Warning signals shall be placed near the excavation to warn the approaching traffic and men. At night, red danger light shall be displayed in close vicinity to the excavation.

3.1.9 Scaffolding

- Scaffolds shall be built of sound material, securely fastened, and be capable of supporting four times the combined weight of men and materials that they may have to carry at one time;
- Wood planks used in scaffolds should be not less than 25 centimetres wide and 5 centimetres thick and shall not extend beyond the outer supports more than 30 centimetres nor less than 15 centimetres unless securely fastened down. Wooden planks without any nails projecting should be used; similarly with cracks and/or knots should not be used for scaffolding purposes; and
- Guardrails and toe boards shall be installed on all scaffolds that are three metres or more in height, land on all scaffolds immediately adjacent to excavations, deep water, machinery or other sources of danger.

3.1.10 Electric and Magnetic Fields

The line clearance standards that will apply for the implementation of the RAP will be guided by SRKs identification of PAP violating the right of way (RoW), health and safety issues to consider and corrective action required.

On the health implications of the RoW, the guidelines note: “The exposure of people to 50 Hz magnetic and electric fields is by far lower than the limits stipulated by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines, by the European Union (EU) directives and lower than the more precautionary limits stipulated by the National Standards of some industrialized countries, as Italy”.

3.1.11 Working in Confined Spaces

- All practical steps must be taken to prevent the ingress of dangerous fumes or substances; if doubt exists the atmosphere of the space must be tested by an approved detector;
- Caution notices shall be attached to all points of isolation and the keys used for locking off purposes placed in the appropriate key safe;
- Every person who enters a confined breathing space shall wear an approved breathing apparatus;

- Every person entering a confined space shall, where practicable, wear a safety harness and rescue line;
- A person shall always be kept on duty outside the confined space and keep in touch with the person inside; and
- A “permit to work” shall first be issued before a person is allowed to work in a confined space.

3.2 Simultaneous Operations

The Project involves multiple operations running concurrently, such as construction activities, electrical installations, equipment handling, and maintenance work. This creates the need for Simultaneous Operations (SIMOPs) management to ensure safety, efficiency, and coordination. The following sections outline the risks associated with SIMOPs, procedures for coordination and communication, and the training and monitoring framework for handling SIMOPs during the Project.

3.2.1 Risks associated with SIMOPs

SIMOPs during the construction and operational phases of the Project pose several risks due to overlapping activities. Key risks include:

- Collision hazards: Multiple construction vehicles, cranes, and heavy machinery operating in the same area may lead to collisions if not properly coordinated. Overlapping movements of machinery and equipment during excavation, lifting, and transporting materials are of particular concern;
- Electrical hazards: Simultaneous work near live electrical equipment, particularly during stringing of conductors, substation installation, and maintenance, increases the risk of electric shock or electrocution if activities are not properly sequenced and communicated;
- Confined space operations: Concurrent activities within confined spaces (e.g., substations) may cause overcrowding, increasing the risk of accidents such as slips, trips, falls, and exposure to hazardous substances;
- Fire and explosion risks: The use of flammable materials and fuel in proximity to electrical installations and heavy machinery heightens the risk of fires or explosions if proper separation and control measures are not in place; and
- Environmental hazards: Simultaneous work may lead to overlapping activities near environmentally sensitive areas, increasing the risk of accidental spills, soil contamination, and damage to ecosystems.

3.2.2 Procedures for coordination, communication, and hazard management for SIMOPs

To manage SIMOPs risks, a detailed coordination and communication protocol must be established to ensure that all teams working simultaneously are aware of each other’s activities and are properly coordinated. This can be facilitated through:

- Daily coordination meetings: At the start of each shift, daily SIMOPs coordination meetings will be held between supervisors of each team to discuss planned activities and identify potential conflicts. This will include reviewing any shared workspaces and coordinating heavy machinery movements;
- Centralised communication system: A real-time communication system (e.g., radio communication, dedicated channels) must be implemented to allow for continuous updates on ongoing activities. Each work team must have a designated point of contact responsible for keeping their team updated on changes and potential risks arising from SIMOPs;

- SIMOPs safety checklist: A SIMOPs-specific hazard identification and control checklist must be completed before starting work each day. This checklist will help ensure that all workers are aware of the ongoing activities, potential hazards, and the specific precautions to take when working near other teams.
- Exclusion zones: Clearly marked exclusion zones must be established around high-risk activities, such as heavy lifting, working near energised equipment, and working at heights. These zones must be visually marked using signage and barriers, and entry must be restricted to authorised personnel only.
- Emergency response coordination: The emergency response plan should cater for SIMOPs, including clear communication protocols for incident reporting and coordinated evacuation procedures in case of accidents. Emergency response teams must be trained to handle SIMOPs-related incidents, ensuring rapid and effective intervention.

3.2.3 Framework for training on SIMOPs and implementation of monitoring

To ensure safe and efficient SIMOPs during the Project, a comprehensive training and monitoring framework is essential. This framework will equip workers and supervisors with the skills to manage risks, adhere to communication protocols, and respond to emergencies. Training will focus on hazard recognition and safe coordination of overlapping tasks, while continuous monitoring and audits will ensure compliance with safety standards, reducing risks and enhancing operational efficiency.

The following aspects must be addressed in terms of SIMOPs-Specific Training:

- Comprehensive training program: A detailed SIMOPs training program must be implemented for all workers, supervisors, and contractors involved in SIMOPs. The training must cover topics such as identifying and mitigating risks, understanding the flow of operations, adhering to communication protocols, and implementing emergency response procedures;
- Pre-task briefings: Before the start of each shift, a pre-task briefing must be conducted to inform workers of the SIMOPs scheduled for the day. This must include updates on overlapping tasks, exclusion zones, and specific hazards associated with SIMOPs; and
- Refresher training: Periodic refresher training sessions must be conducted to ensure that all personnel remain up to date with SIMOPs protocols and procedures.

The following aspects must be addressed in terms of monitoring and compliance:

- On-the-Ground Supervisors: Dedicated SIMOPs safety officers must be assigned to monitor the coordination of SIMOPs in real time. They must be responsible for ensuring that all workers adhere to established protocols, communication procedures, and safety measures;
- Audits and inspections: Regular safety audits and inspections must be conducted to verify compliance with SIMOPs protocols and to identify any areas for improvement. Findings from these audits must be reviewed, and corrective actions will be implemented to mitigate any identified risks; and
- Incident reporting and review: Any incidents or near misses that occur during SIMOPs must be documented and analysed in detail to determine their root cause. Lessons learned from these reviews must be used to update training materials and improve SIMOPs procedures.

3.3 Health management

Providing a healthy and accident-free workplace for the employees, contractors and all people coming into contact with project activities is one of the primary organisational objectives of the Project.

3.3.1 Organizational requirements on health and safety

The Project will be committed to the following:

- Striving for excellence in health and safety management;
- Integrating health and safety into all of the project processes and activities;
- Providing the necessary resources (training, equipment, human and financial);
- Assessing and managing risks; and
- Implementing safety and health management systems, with focus on continual improvement.

3.3.2 Security management

There will be active security management during the construction and operation phase the Project. Security will be outsourced to a security company for both the construction and operation phases of the project. The security company will:

- Conduct regular inspections of the power line;
- Report any incident immediately; and
- Take preventative and corrective action.

3.4 Power Line Safety Precautions

3.4.1 PPE when working with overhead conductors

When working on or with overhead conductors, the following provisions shall be complied with:

- Prior to climbing poles, ladders, scaffolds, or other elevated structures, an inspection shall be made to determine that the structures are capable of sustaining the additional or unbalanced stresses to which they will be subjected;
- Where poles or structures may be unsafe for climbing, they shall not be climbed until made safe by guying, bracing, or other adequate means;
- Before installing or removing wire or conductor, strains to which poles and structures will be subjected shall be considered and necessary action taken to prevent failure of supporting structures;
- When setting, moving, or removing poles using cranes, derricks, gin poles, A-frames, or other mechanised equipment near energised conductors or equipment, precautions shall be taken to avoid contact with energised conductors or equipment, except in bare hand live-conductor work, or where barriers or protective devices are used;
- Unless using suitable protective equipment for the voltage involved, employees standing on the ground shall avoid contacting equipment or machinery working adjacent to energised conductors or equipment;
- Lifting equipment shall be bonded to an effective ground or it shall be considered energised and barricaded when utilised near energised equipment or conductors;
- Towers' foundation holes shall not be left unattended or unguarded in areas where employees are working;
- Tag conductors shall be of a nonconductive type when used near energised conductors;
- Personal protective grounding for power lines shall be applied for temporary grounding of de-energized and isolated lines for the purpose of bare hand contact. This is to limit the voltage difference between accessible points at a worksite to safe values in the event of the lines being accidentally re-energised; and
- Suitable PPE shall be worn.

3.4.2 Working at heights

- No work above two meters from ground level will be allowed without proper fall protection equipment consisting of full body harnesses and double lanyards with shock absorbers;
- Employees will be medically checked to ensure they are fit for working at heights; and
- Structures should be tested for integrity before working around them.

For metal tower construction

- When working in unstable material the excavation for pad- or pile-type footings in excess of 1.5 metres deep shall be either sloped to the angle of repose as required in design or shored if entry is required. Ladders shall be provided for access to pad- or pile-type footing excavations in excess of 1.33 metres;
- When working in unstable material provision shall be made for cleaning out auger-type footings without requiring an employee to enter the footing unless shoring is used to protect the employee;
- A suitably trained person shall direct mobile equipment adjacent to footing excavations;
- No one shall be permitted to remain in the footing while equipment is being spotted for placement;
- Where necessary to assure the stability of mobile equipment the location of use for such equipment shall be graded and levelled;
- Tower assembly shall be carried out with a minimum exposure of employees to falling objects when working at two or more levels on a tower;
- Guy lines shall be used as necessary to maintain sections or parts of sections in position and to reduce the possibility of tipping; and
- Members and sections being assembled shall be adequately supported.

The construction of towers and the erecting of poles, hoisting machinery, site preparation machinery, and other types of construction machinery shall conform to following applicable requirements:

- No one shall be permitted under a tower which is in the process of erection or assembly, except as may be required to guide and secure the section being set;
- When erecting towers using hoisting equipment adjacent to energised transmission conductors, the conductors shall be de-energised when practical. If the conductors are not de-energised, extraordinary caution shall be exercised to maintain the minimum clearance distances required;
- Erection cranes shall be set on firm level foundations and when the cranes are so equipped outriggers shall be used;
- Tag lines shall be utilised to maintain control of tower section being raised and positioned, except where the use of such conductors would create a greater hazard;
- The load lines shall not be detached from a tower section until the section is adequately secured;
- Except during emergency restoration procedures erection shall be discontinued in the event of high wind or other adverse weather conditions which would make the work hazardous;
- Equipment and rigging shall be regularly inspected and maintained in safe operating condition;
- Adequate traffic control shall be maintained when crossing highways and railways with equipment as required; and
- A designated person shall be utilised to determine that required clearance is maintained in moving equipment under or near energised conductors.

3.4.3 Stringing of conductors

- Conductors being strung in or removed shall be kept under positive control by the use of adequate tension reels, guard structures, tie lines, or other means to prevent accidental contact with energized circuits;
- Guard structure members shall be sound and of adequate dimension and strength, and adequately supported;
- Catch-off anchors, rigging, and hoists shall be of ample capacity to prevent loss of the conductors;
- The manufacturer's load rating shall not be exceeded for stringing lines, pulling lines, sock connections, and all load-bearing hardware and accessories;
- Pulling lines and accessories shall be inspected regularly and replaced or repaired when damaged or when dependability is doubtful;
- Conductor grips shall not be used on wire rope unless designed for such application;
- While the conductor or pulling line is being pulled (in motion) workers shall not be permitted directly under overhead operations, nor shall any worker be permitted on the cross-arm;
- Except during emergency restoration procedures, work from structures shall be discontinued when adverse weather (such as high wind or strong rain or storm) makes the work hazardous;

- Stringing and clipping operations shall be discontinued during the progress of an electrical storm in the immediate vicinity;
- Reel handling equipment, including pulling and braking machines, shall have ample capacity, operate smoothly, and be levelled and aligned in accordance with the manufacturer's operating instructions;
- Reliable communications between the reel tender and pulling rig operator shall be provided; and
- Each pull shall be snubbed or dead ended at both ends before subsequent pulls.

3.4.4 Rigging and hoisting

- The supervisor shall be responsible for the safe loading and use of ropes, chains, lines, slings, jacks, skids and other hoisting and rigging apparatus. In no case shall such equipment be used until the supervisor has determined that it is free from defects and safe for use;
- Before operating crane, derrick or other hoisting equipment, the operator should sound warning and accept only one person's signal to start raising, lowering or swinging load. However, the operator shall stop immediately upon signal from anyone;
- Should a person be near conductors under tension or within the angle formed by ropes or conductors, the hoist operator shall not place tension on a rope or conductor;
- Workers shall be trained in the proper use of knots, ties, land hitches, and safe methods of hooking and slinging required in their work;
- Particular care must be exercised to see that lines, chains and other hoisting equipment are not unduly stressed by improper use. All ropes, cable chains etc., shall be discarded when they have worn or deteriorated to the point where their safe use may be questionable in the judgment of the supervisor;
- Chains shall not be spliced or joined by makeshift means such as open links, bolts, or wire;
- A competent person shall insert new links, or the chain returned to the manufacturer for repairs;
- Wire ropes or conductors should not be allowed to kink as this weakens them; and
- When applying U-bolt clips to lines, a sufficient number should be used. Hooks, rings, clevises and other fittings used on chains or lines shall exceed the carrying capacity of the chain or conductor.

3.4.5 Earthing

The basics of safe grounding are:

- To design and construct system that is capable to carry current under normal and fault conditions;
- The earth path should be capable of handling magnitude and duration of current as per the over-current protection of the system without any fire or flash or explosion; and
- Persons in the vicinity of earthed structures and installations shall not be exposed to the dangers of electrical shocks.

General guide conductors for earthing

An effective grounding system must satisfy the following conditions:

- Provide a low impedance path to ground for personnel and equipment;
- Withstand and dissipate repeated faults and surge currents;
- Provide ample corrosion allowance to various chemicals to ensure continuous service during life of the equipment being protected;
- Provide rugged mechanical properties for easy driving of earth electrodes with minimum difficulty;
- All non-current carrying metal parts associated with installation shall:
    - Be effectively earthed to a grounding system or mat which will limit the touch and step potential to tolerable values;
    - Limit the ground potential rise to tolerable values so as to prevent danger due to transfer of potential through ground, earth wires, conductor sheath fences, pipe conductors etc.; and
    - Maintain the resistance of the earth connection to such a value as to make operation of the protective device effective.

The following precautions should be adapted to the extent applicable and possible:

- Examine earthing devices at least quarterly and always prior to their use;
- Use only earthing switches or any other special apparatus where provided for earthing;
- Verify that the circuit is dead by means of a discharging rod or voltage indicator. The indicator itself should first be tested on a live circuit or proving unit before and after the verification;
- Earthing should be done in such a manner that the persons doing the job are protected by earth connections on both sides of their working zone; and
- All the phases should be effectively earthed and short circuited though work may be proceeding on one phase only.

3.4.6 Earthing of overhead conductors

All metal supports, all reinforced and pre-stressed cement concrete supports of overhead conductors and metallic fittings attached thereto shall be permanently and effectively earthed. For this purpose a continuous earth wire shall be provided and securely fastened to each tower and connected with earth ordinarily at three points in every kilometre, the spacing between the points being as nearly equidistance as possible. Alternatively, each support and the metallic fitting attached thereto shall be efficiently earthed.

1. Metallic bearer wire used for supporting insulated wire of low and medium voltage overhead service conductors shall be efficiently earthed or insulated.
2. Each stay wire shall be similarly earthed unless insulator has been placed in it at a height not less than 3.0 meters from the ground.

3.4.7 Earthing and short –circuiting mains

- High voltage mains shall not be worked upon unless they are discharged to earth, after making them dead are earthed, short-circuited with earthing. Short circuiting equipment is adequate to carry possible short circuit currents. All earthing switches wherever installed should be locked up;
- If a conductor is required to be cut, a steel wedge shall be carefully driven through it at the point where it is to be cut;
- The earthing device when used shall be first connected to an effective earth. The other end of the device shall then be connected to the conductors to be earthed; and
- Except for the purpose of testing, phasing etc. the earthing and the short-circuiting devices shall remain connected for the duration of the work.

3.4.8 Remove earth connections

On completion of work, removal of the earthing and short circuiting devices shall be carried out in the reverse order to that adopted for placing, that is, the end of earthing device attached to the conductors of the earthed mains or apparatus shall be removed first and the other end the connected to earth shall be removed last. The conductor shall not be touched after the earthing device has been removed from it.

Testing and record

- All earthing systems belonging to the utility shall be tested for resistance on dry day during the dry season not less than once every two years;
- A record of every earth test made and the result thereof shall be kept by the utility for a period of not less than two years after the day of testing; and
- It shall be available to the engineering supervisor.

3.4.9 Working on lower portion of towers carrying live conductors

Painting and other work on the lower portion of towers or supports carrying live conductors, and above the anticlimbing device may be permitted under the permit to work card provided that suitable

precautions are taken to ensure that all persons carrying out work are acquainted with the distinctive marks (caution order) that have been placed on the tower and the support. For this purpose all the towers and the supports shall be distinctly marked either by colour or by other positive manner above which no operation shall be carried out without making the conductor dead.

3.4.10 Conductor work on poles and towers

- Before climbing any elevated structure, every worker shall first assure himself that the structure is strong enough to sustain his weight safely;
- If poles or cross arms are apparently unsafe because of decay or unbalanced tensions of wires on them, they shall be properly braced or guyed before they are climbed;
- Line men shall wear their safety conductors while working on the poles and towers;
- Wire hooks shall not be attached to line men's belts;
- Safety straps should not be placed above the top cross arm when it is at the top of the pole; and
- In the event of the near approach of lightning or thunderstorm all work on overhead conductors shall cease immediately.

3.4.11 Working on transformers

- When work is to be carried out on a transformer, both low and high tension breakers and isolators shall be opened. Similarly, during isolation of transformers to which potential transformers are connected, such potential transformers shall be isolated;
- Before starting any work on a transformer installation, it is important to check carefully for back feed, abnormal voltage or other dangerous conditions. Unusual circuit conditions may exist which require special consideration;
- Whenever transformers are replaced, the new transformer should be checked carefully for voltage, polarity and phase sequence before taking into service;
- Area should always be cordoned off and safety tagging should be done prior to starting the job on transformer; and
- When carrying out work of filtering of oil on transformers, care shall be exercised that all exposed live conductors are suitably barricaded so that no person and no apparatus such as flexible hose etc. that is being handled comes in contact with the live parts. All such work shall be carried out under the direct supervision of an authorized person.

3.4.12 Lighting arrestor

- No work shall be done on the lightning arresters unless it is disconnected from the conductor circuit and grounded at both the conductors and ground terminals.

3.5 Environmental

Environmental risks associated with the project relating to occupational health and safety would include:

- Encounters with small reptiles and snakes (venomous snakes) mainly during the construction of the power line but also during the rest of the project life cycle;
- Encounters with arachnids during the project life cycle, especially during the construction of the power line;
- Encounters with other possibly threatening wildlife during the project life cycle;
- Neglected Tropical Diseases (NTDs): Angola is endemic for four of the five NTDs amenable to preventive chemotherapy through mass drug administration, namely lymphatic filariasis, soil-transmitted helminthiasis, schistosomiasis, and onchocerciasis. There is limited data on trachoma. In 2021, there were 4.4 million people targeted for MDA, although only 2.7 million were treated. Other notable NTDs that remain endemic are dracunculiasis (Guinea worm), leishmaniasis (cutaneous and visceral), human African trypanosomiasis (gambiense), leprosy and rabies; and
- Flooding.

Employees and contractors should be aware of their surroundings at all times and avoid encounters with wildlife. Necessary precautions and prophylactics should be taken to avoid contracting insect borne diseases. In the event of a snake bite, the employee should be taken to the closest hospital for diagnosis and treatment immediately.

3.6 Chemical

Occupational exposure to chemicals applies to:

- Handling of pesticides to maintain the RoW;
- Exposure to PCB in transformers;
- Exposure to electrical components;
- Pesticides;
- No application of pesticides if the necessary training and/or certification have not been received;
- Don't access the area in the post treatment interval – avoid unnecessary exposure; and
- Follow hygiene measures to ensure family members are not exposed.

3.6.1 PCB and other

PCB is one of the initial twelve chemical substances or groups classified as Persistent Organic Pollutants (POPs) under the Stockholm Convention. PCBs are linked to chronic reproductive effects, gastric disorders, and skin lesions in laboratory animals and are suspected human carcinogens.

Direct exposure to PCBs such as inhalation and skin contact could lead to serious headaches, drowsiness and skin irritation.

Transformer repair, reconditioning and retro-filling facilities are the major industry sectors that contribute to the spread of PCB contamination. The retro-filling of transformer involves draining of oil, rewinding of the transformer coil and refilling of dielectric fluid. The dielectric fluid may either be the same oil, which was from the transformer but filtered or it may be substitute dielectric oil, such as silicones, synthetic hydrocarbons, and ester-based materials.

Workers should eliminate risk of exposure to PCBs by utilizing the following PPE:

- Overalls with hood;
- Protective boot covers;
- Full-face respirator;
- Protective gloves;
- Heavy duty gauntlets or ductile taping of trousers' ankles to boot covers, and wrists to gloves;
- Hard hat for overhead dangers and head protection; and
- Eye protection glasses.

The main danger when handling liquids with high PCB concentrations is skin absorption. Careful consideration must be given to the selection of protective clothing including coveralls, boots or boot covers, gloves and eye protection. Clothing and footwear must be resistant against splash and spills.

For major spill clean-up operations, a full suite of non-porous material is appropriate. Disposable coveralls and PCB resistant knee length safety boots shall be used. Eye protection against liquid splashes is necessary.

Eye protection glasses are adequate for this purpose. Chemical safety Eye protection glasses face shield, or safety glasses with side shields are satisfactory. Working with hot fluid must be avoided since fumes may be generated when PCB fluids are heated. Protective equipment must also be worn to prevent inhalation of fumes. A full-face respirator fitted with a cartridge suitable for PCBs shall be used and ventilation of the working area must be sufficient to dispose the generated vapours. If the respirator becomes slightly contaminated or clogged, wipe the respirator with a paper towel and

kerosene. If the respirator becomes heavily contaminated, it shall be disposed of in accordance with this code of practice.

PCBs will penetrate most materials, but certain materials including natural rubber are particularly permeable to PCBs and are thus unsuitable for use as protective clothing. Chemical resistant fluorinated rubbers or elastomers are more suitable and laminated materials offer the best protection against PCBs.

For continuous handling of PCB, resistant Viton, polyethylene, butyl rubber, nitrile rubber or neoprene gloves shall be used. No material is completely impervious to PCBs and therefore it is necessary to make certain that arrangements are in place to regularly change all PPE. The equipment supplier will normally provide details on the rate at which PCBs permeate protective equipment. This information will be useful in estimating, for each task, the time it takes for PCBs to penetrate through the protective equipment. This is known as the breakthrough time. This will depend on the frequency and duration of contact of the protective equipment and clothing with PCBs and may vary from one task to the next. The supplier should be able to provide typical breakthrough times for the different applications and advise if there is a need to reduce this time to allow for other factors such as abrasion. If rubber boots are used, the boots need to be regularly discarded. The foot protection reinforced by the use of disposable boot covers.

Preference should be given to the use of disposable protective clothing due to difficulty in decontamination. Contaminated protective clothing should be promptly removed and the area of skin contaminated with PCBs should be washed with or rinsed immediately.

Hands must be washed after handling PCBs (even if wearing full protection} before eating, drinking, smoking or using toilet facilities initially with waterless hand cleaners and paper towels, which shall then be disposed of in accordance with this code of practice.

3.7 Handling Incidences

There are many hazards and injuries associated with power lines. The most common electrical injuries are electrical burns, which can occur if someone comes into contact with a live power line. This can happen if someone climbing a tree or pole hits a power line or if someone tries to repair a power line without proper training or equipment.

Incidents involving power lines can be reduced when hazards and risks are effectively identified and appropriate controls developed and utilized. Current OSHA regulations require employers to take precautions when cranes and other boomed equipment are operated near overhead power lines. There are also electrical hazards associated with rigging and moving loads by ground personnel.

All incidents will be handled in accordance with the Incidents and Emergency Response Plan, detailed in Section 7.3.5 of the ESMP.

3.8 Responsibility for Machinery

Regarding supervision of the use of machinery and equipment, the following apply:

- All equipment and machinery shall be under management of competent persons;
- No person responsible for machinery that requires constant supervision shall for any reason absent himself or cease to have continuous supervision of such machinery during the periods for which he is in charge unless he is replaced by a competent person, nor shall any person in charge of such equipment be allowed to work for more than 10 hours a day unless in case of emergency or where written permission has been granted by the person in charge;
- The general responsibility for any machinery shall not be a joined charge exercised by two or more engineers, unless formally agreed to between the engineers and the person in charge;

- Where machinery has more than 250 horse power, or a unit thereof develops more than 75 horse power, all such machinery shall be under the charge of an engineer;
- Persons working with machinery have the duty to report potential and actual incidences of danger; and
- The reporting line to report potential and actual incidences of danger should be clearly outlined and communicated through agreed to channels, for example during induction, team meetings and by distributing notices.

3.9 Notification of Accidents

Regarding notification of accidents, the following key steps are required:

- The employer will provide written notice of an accident to the relevant government representative, where an accident during the construction and operations:
  - Causes loss of life to the person employed;
  - Causes an injury, in turn causing death;
  - Disables any such person to work for more than three days;
- A medical practitioner should report to the relevant government representative, a patient (construction of operations worker) whom he believes to be suffering from poisoning related to his work;
- Written notice of every case of poisoning occurring as a result of construction and/or operations work on the project should be provided to the relevant government representative; and
- Where personal injury immediately results in the death of the person injured, the place where the accident occurred shall, after the removal of the injured person, be left precisely as it was immediately after the accident until a police officer and an inspector have visited it and inspected it unless the discontinuance of work may endanger the lives of other persons or seriously impede the working, work shall not resumed at such a place without prior approval of an inspector.

3.9.1 Risk Identification and Mitigation

There are several aspects of the Project that pose significant OHS risks to employees. Workers may face hazards that can lead to various ailments, including chronic respiratory conditions like asthma, musculoskeletal disorders, noise-induced hearing loss, skin issues, and physical injuries. Furthermore, the complexity of the project introduces risks associated with SIMOPs, which can increase the likelihood of accidents if not carefully managed.

To mitigate these risks and safeguard worker health, this section details measures to address each identified hazard. Construction activities inherently involve dangers such as falls from heights or into pits, electrical shocks (during testing and commissioning), collision from mobile equipment and being struck by rock fragments or other objects, which can result in severe or even fatal injuries. The Contractor/s must manage these risks through proper safety training (at least one mandatory session before construction begins), clear communication of safety protocols (e.g., mandatory use of protective gear and adherence to safe movement guidelines within the site), and adequate signage and barriers in high-risk zones. Additionally, regular supervision and “toolbox” talks at the beginning of every shift are crucial to ensure adherence to these safety measures.

SIMOPs further complicate the construction phase, as multiple teams may be working on different tasks in the same or adjacent areas. Key risks associated with SIMOPs include machinery collisions, overcrowding in confined spaces, and communication breakdowns between teams. To address these, daily SIMOPs coordination meetings must be held between supervisors to identify potential conflicts and align activities. Additionally, a centralised communication system must be implemented to keep all teams updated on ongoing tasks and hazards.

The proximity to heavy machinery like cranes and excavators, and the movement of construction vehicles also present significant threats. To prevent accidents, workers should receive specific training on operating such machinery and follow strict safety protocols on site. Only workers who are well

trained and licensed to operate such equipment or machinery must be allowed to do so. Exposed electrical wires and working near high-voltage installations increase the risk of electric shocks or electrocution. Therefore, wires should be clearly marked and isolated, especially in high-traffic areas. Isolation procedures must be compiled and be readily available for use during construction, commissioning and operation phases.

Moreover, workers will encounter environmental hazards such as dust, noise, and air pollution, necessitating the use of personal protective equipment (PPE) like gloves, safety glasses, masks, and earmuffs. Extreme conditions such as heat and long working hours can lead to exhaustion and dehydration, affecting workers' concentration and increasing the likelihood of accidents. Measures like providing accessible drinking water and managing work schedules can help alleviate these issues. Supervision is also key to identifying and addressing fatigue among workers. Parts of the Project area include zones that are not yet cleared of UXOs; hence a thorough demining campaign is essential before commencing construction. The risk of accidents due to UXO remains high, underscoring the need for clear demarcation and communication of demined areas.

Maintaining the safety of personnel requires comprehensive safety protocols as outlined in Table 3-1, which includes measures for managing SIMOPs. These protocols should conform to national and international standards, such as those from the IFC (IFC: PS2). The Contractor/s must distribute a manual detailing these safety measures, ensure it is accessible on-site, and designate a responsible team to oversee their implementation, including specific teams for SIMOPs coordination.

Note that the mitigation measures listed in Table 3-1 are supplementary and do not replace the requirements mandated by Angolan legislation, specifically the General Labour Law (Law No. 7/15 of June 15th) and the Occupational Health and Safety System (Decree No. 31/94 of May 31st). For comprehensive guidance, it is advisable to consult these legal documents directly. Additionally, a detailed OHS Plan must be formulated during the initiation of the construction phase, which more specifically addresses the risks associated with the works, SIMOPs, and outline corresponding safety measures.

Table 3-1: OHS hazards, mitigation measures and responsibilities

Hazard category	Specific hazard	Causes	Measures to mitigate risk	Responsible party	Frequency of training/inspection	Consequences
General OHS						
Fall Hazards (Section 3.1.8 &3.2.2)	Falling from heights or into trenches	Inadequate fall protection measures, unstable working surfaces, lack of training	• Safety training for workers • Use of PPE like safety harnesses, hard hats, safety shoes • Implementation of signage and protective barriers • First Aid supplies and training • Regular equipment inspection	Safety Manager	Monthly training; Daily inspections	Injury, disability, or death due to falls
Impact Hazards Section 3.1.4)	Projection of rocks or falling objects	Loose or unsecured materials, improper handling or storage of materials	• Safety training for workers • Use of PPE like hard hats, protective glasses, reflective vests • Maintain First Aid supplies	Project Supervisor	Monthly training; Regular inspections	Injuries from impact, which can be severe or fatal, including head trauma
Lifting Hazards (Section 3.1.1)	Slips, trips and falls	Wet or uneven surfaces, cluttered work areas, inadequate lighting	• Training on safe lifting and moving techniques • Mechanical aids for lifting • Define spaces for tool and equipment storage • First Aid supplies maintained	Health and Safety Officer	Biannual training	Sprains, strains, broken bones, other musculoskeletal injuries
	Musculoskeletal injuries from lifting	Improper lifting techniques, lifting too much weight, repetitive motion				Chronic back pain, hernias, long-term disability
Traffic Hazards (Section 3.1.5)	Injuries from vehicle circulation	Poor site layout, inadequate signage, lack of pedestrian pathways	• Define and delineate road access routes • Use of PPE like reflective vests • First Aid readiness • Procedures for road accident response, including notifying HSE Manager and Police, victim management, and accident investigation	Traffic Coordinator	Annual training; After incident	Vehicle-related injuries can range from minor to fatal, including crush injuries and traumatic injuries
Noise Exposure (Section 3.1.3)	Hearing impairment or loss	Prolonged exposure to high decibel levels, lack of personal protective equipment	• Provision of sound-blocking earmuffs for operators of loud equipment • Locate rights-of-way away from human receptors • Regular monitoring and supervision of noise levels	Environmental Health and Safety Officer; Design and Engineering Contractor	Before job commencement; Regularly, During detailed design phase	Temporary or permanent hearing loss
	Irritation by near-by residents	Proximity of noisy operations to residential areas				Noise nuisance to nearby residences
Air Quality Hazards (Section 3.1.3)	Exposure to dust and air pollution	Excavation activities, inadequate dust control measures, prevailing winds	• Use of personal protective equipment such as safety glasses and masks • Shorter excavation sections when possible • Frequent irrigation of construction sites • Periodic medical examinations and indoor air quality monitoring	Environmental Health Officer	Before construction; Monthly reviews	Respiratory issues, chronic lung conditions, aggravated asthma
Chemical Exposure Hazards (Section 3.4)	Exposure to various chemicals	Inadequate handling procedures, spills, lack of training in chemical use	• Use of personal protective equipment such as safety glasses, masks, and protective gloves • Maintain First Aid supplies	Safety Supervisor	Initial and annual training	Chemical burns, poisoning, respiratory problems, long-term health effects
Machinery Operation Hazards (Section 3.1.2)	Operation of heavy machinery	Inadequate training, poor maintenance of machinery, operator error	• Provide safety training for operators • Closely monitor machinery operations • Restrict work areas to trained workers • Regular equipment check-ups • Maintain First Aid supplies	Equipment Manager	Prior to equipment use; Regularly	Crushing, amputation, other severe bodily injuries
Minor Accidents (Section 3.1.1)	Scrapes, cuts, abrasions	Improper use of tools, lack of protective gear, inadequate safety protocols	• Treat through first aid • Stop work to seek treatment for any injury • Provide First Aid boxes in all operational areas	First Aid Officer	Immediate response	Minor wounds, infections if untreated
Medical Emergencies	Serious injuries or health cases	Accidents, inadequate response to initial injuries, lack of emergency preparedness	• Administer first aid immediately • Inform management about medical emergencies • Assess the situation for further risks • Contact nearest medical centre for serious injuries	Health Services Coordinator	Emergency response training	Depending on the injury, consequences can range from temporary impairment to fatal outcomes

Hazard category	Specific hazard	Causes	Measures to mitigate risk	Responsible party	Frequency of training/inspection	Consequences
			• Ensure all staff know emergency procedures			
Electrocution Hazards (Section 3.2)	Electrical safety risks	• Faulty electrical equipment, improper installation, lack of grounding • Induced voltages not considered during design phase	• Establish safety perimeter around high-voltage areas • Label and isolate exposed wires • Restrict electrical work to qualified technicians • Require PPE for electrical work • Ensure presence of a trained first aider • Conduct earthing surveys and resistivity tests at early stages • Ensure adequate earthing and lightning protection • Install signs and barrier • Implement isolation procedures during commissioning and operation phases • Address induced voltages during design phase • Conduct risk assessments prior to work on power lines to ensure local grounding	Electrical Safety Manager, Design and Engineering Contractor;	Before electrical work; Continuously; During detailed design phase	Burns, cardiac arrest, long-term health effects, death
	Insulation failure	• Poor design and configuration of the insulation systems; • Use of improper insulation materials	• Ensure proper insulation coordination design including considerations for voltage levels, impulse withstand voltages, power frequency withstand voltage, pollution levels, overvoltage protection, clearances and creepage distances during the design phase of the project; • Selection of appropriate insulation materials, • Ensure regular testing and maintenance			
Exhaustion and Dehydration	Physical stress from harsh conditions	High temperatures, insufficient breaks, inadequate hydration facilities	• Provide adequate drinking water • Create balanced work schedules • Supervise workers to prevent heat stress and dehydration • Open communication for feedback on working conditions	HR Manager	Daily during high temperatures	Heatstroke, dehydration, decreased mental function leading to further accidents
Land Mine Risks	Risk of land mine accidents	Unresolved conflicts, inadequate clearing operations, poor mapping of hazardous areas	• Conduct a comprehensive demining campaign before construction • Clearly mark demined areas and maintain First Aid supplies • Transport victims of land mine accidents to nearest hospital • Immediate notification of management in case of death	Security and Safety Officer	Before construction; As needed	Severe injuries, amputation, death
Exposure to Magnetic Fields (Section 3.1.9)	Risk of high EMF exposure	Utility workers having higher exposure to magnetic fields than limits provided by the ICNIRP due to working in close proximity to power lines	• Conduct exposure level surveys • Use personal monitors during working activities • Train workers in identifying EMF levels and hazards • Limit access to trained workers • Establish safety zones for high EMF area when compared to the ICNIRP limits • Limit exposure time through rotation • Use shielding materials • Increase distance from sources where possible	Electrical Safety Manager; Design and Engineering Contractor; Shift Supervisor	During detailed design, during construction and commissioning, as needed during operation	Possible association between EMF exposure and health issues like cancer (U.S. National Institute of Environmental Health Sciences 2002)
Explosion Risks	Potential risk from electrical explosions	Faulty or aged equipment, poor maintenance, insufficient fault level ratings	• Ensure fault level requirements are addressed during design • Conduct short circuit tests during FAT • Torque and mark nuts and bolts as per FAT results • Compile and follow OEM maintenance procedures	Design and Engineering Contractor; Installation Contractor Electrical Supervisor; Equipment Manufacturer; Maintenance Manager	During detailed design, during factory and site acceptance tests, construction and commissioning, as needed during operation	Injuries, fatalities, equipment damage

Hazard category	Specific hazard	Causes	Measures to mitigate risk	Responsible party	Frequency of training/inspection	Consequences
Environmental risks	Potential risks of reptile/snake or arachnid bites, Exposure to flooding	Wildlife on the powerline route, Extreme weather events	Employees and contractors should be aware of their surroundings at all times and avoid encounters with wildlife. Necessary precautions and prophylactics should be taken to avoid contracting insect born diseases. In the event of a snake bite, the employee should be taken to the closest hospital for diagnosis and treatment immediately. Employees and contractors to be aware of extreme weather events and take necessary precautions.	Design and Engineering Contractor; Security and Safety Officer	During construction and commissioning, as needed during operation	Injuries, fatalities
Vector-related diseases (Malaria, dengue, and other vector related diseases)	Open water sources are created and/or enlarged, because of construction activities and storage of plant, materials and equipment, with the potential for increased mosquito breeding sites Potential exposure to water- borne, water-based, water- related and vector-borne diseases Increased burden of disease in community Increased demand on local community health services Diminished quality of health care and treatment for local communities as existing, limited capacity is overwhelmed	Increased burden of disease in workforce, resulting in increased demand for project health services and reduced productivity Reputation damage Community resentment	• Develop vector-breeding source reduction procedures at near- and on-shore activities, specifically around earthworks, camps and where goods from international origin is stored. Consider the appropriate storage / cover of goods or, where this cannot be avoided, drainage or application of larvicide • Maintain and expand good housekeeping and waste management on all project sites to prevent the creation of potential vector breeding sites • Provide information for training of workers in malaria awareness so they can take knowledge back to communities • Provide bed nets to workers for take home use • Provide a vector control and dengue management program with case definitions, diagnostics at work sites etc. • Educate workers about reducing dengue risks in the home	Design and Engineering Contractor; Security and Safety Officer	During construction and commissioning, as needed during operation	Illness and fatalities
Handling incidents	Any unforeseen incident	Hazards involved in erecting power lines, Electrical hazards associated with rigging and moving loads by ground personnel	All incidents will be handled in accordance with the Incidents and Emergency Response Plan, detailed in Section 7.3.5 of the ESPM	Electrical Safety Manager; Security Manager	During construction, commissioning and operation	Injuries, fatalities to perpetrators; equipment damage
Vandalism and Theft	Lack of security measures	Poor site security, lack of surveillance, remote location	• Construct barriers or security fences where possible • Install warning signs (high voltage equipment) • Regular security patrols, especially in remote areas	Electrical Safety Manager; Security Manager	During construction, commissioning and operation	Injuries, fatalities to perpetrators; equipment damage
Aviation Obstruction	Very high towers close to airports an lack of clear markings on overhead power lines	Inadequate planning, failure to mark hazards for aviation, poor coordination with aviation authorities	• Coordinate with Aviation Authorities on clearances • Design and install as per Aviation Authority recommendations • Avoid siting near airports and outside known flight paths • Install beacon balls and light beacons on lines and towers	Desing and Engineering Contractor; Installation Contractor; Angolan Aviation Authority	During detailed design and construction phases	Injuries, fatalities, damage to electrical and aviation infrastructure
SIMOPs						
Collision Hazards	Machinery collisions during simultaneous operations	Overlapping use of heavy machinery, lack of coordination and communication	• Daily coordination meetings between teams • Centralised communication system • Use of spotters and visual signals • Exclusion zones around machinery • Emergency response procedures	Site Supervisor	Daily inspections; Monthly training	Injuries, vehicle damage, operational delays
Electrical Hazards	Electrocution from working near live equipment	Simultaneous electrical work and other construction tasks, inadequate communication and separation	• Clear communication on energised areas • Isolation of live electrical components • Use of exclusion zones around live equipment • PPE for electrical work (insulated gloves, boots)	Electrical Safety Officer	Weekly inspections; Safety briefings	Electric shock, burns, fatalities
Confined Space Hazards	Overcrowding in confined workspaces	Multiple teams working in confined spaces without coordination	• Limit personnel working in confined spaces • Implement access controls for confined areas • Use of ventilation systems where applicable	Confined Space Coordinator	Continuous monitoring; Monthly training	Slips, trips, falls, respiratory issues, injuries

Hazard category	Specific hazard	Causes	Measures to mitigate risk	Responsible party	Frequency of training/inspection	Consequences
			• Simultaneous task scheduling to avoid congestion			
Fire and Explosion Hazards	Fire or explosion from concurrent use of flammable materials	Lack of separation between activities involving flammable materials and other operations	• Separation of flammable material storage and use areas • Fire extinguishers on-site and fire watch in high-risk areas • Enforce “No Smoking” policy in sensitive areas • Emergency response plan	Safety Manager	Quarterly fire drills; Weekly inspections	Fire damage, injuries, fatalities, environmental contamination
Environmental Hazards	Environmental damage from simultaneous operations	Concurrent activities near sensitive areas (e.g., wetlands), spills, or accidental material discharge	• Create buffer zones around environmentally sensitive areas • Use spill containment systems • Monitor high-risk areas for potential environmental impacts • Regular environmental audits	Environmental Officer	Daily inspections; Environmental audits	Soil contamination, water pollution, habitat disruption
Communication Failures	Poor coordination leading to accidents	Lack of clear communication protocols between teams	• Centralised communication system for all teams • Use of radios and signalling methods for real-time updates • Daily SIMOPs briefings to align activities and address potential overlaps	SIMOPs Coordinator	Daily inspections; Monthly training	Accidents, operational inefficiencies, delays
Access and Egress Hazards	Restricted or blocked access to emergency exits	Overlapping construction activities blocking or obstructing exits	• Predefine and clearly mark access and egress routes • Monitor site for blocked paths during concurrent operations • Ensure emergency exits are free from obstruction at all times	Safety Manager	Daily inspections; Emergency drills	Delayed response to emergencies, risk of injury or fatality

4 Conclusion

The information presented in this high-level plan should be used as a guide in addressing the OHSM aspects, including the management of SIMOPs. It does not replace the requirements mandated by Angolan legislation, specifically the General Labour Law (Law No. 7/15 of June 15th) and the Occupational Health and Safety System (Decree No. 31/94 of May 31st).

Specific work instructions will need to be developed to guide Project employees and contractors, particularly on the risks associated with SIMOPs. These instructions will include protocols for coordination, communication, and hazard management during SIMOPs. The work instructions must be informed by the identified Project OHS risks and tailored to ensure safe and efficient operations in line with both national laws and regulations and good international industry practice requirements set out in standards such as the IFC Performance Standards.

Prepared by

K Moodley
Senior Environmental Scientist

Reviewed by

D Kilian
Partner

5 References

EFCOG Electric Safety Improvement Project. Electrical Safety Hazards Awareness. Study Guide (undated).

HSE. Avoiding danger from overhead power conductors (undated, fourth edition).

IFC (World Bank Group). Environmental, health and safety guidelines for electric power transmission and distribution (2007).

IFC (World Bank Group). General Environmental Health and Safety Guidelines. (2007).

ISSC3. Guideline for Managing vegetation near power conductors (December 2005).

North Delhi Power Limited. Electrical Safety Manual (Second edition, January 2007).

Safe Work Australia. Working in the vicinity of overhead and underground electric conductors. Code of conduct (undated).

South African National Standard 507. Electricity Distribution – Guideline for the provision of electricity distribution networks in residential areas (2007).

Appendix Q: Gender-based Violence and harassment Prevention and Response Plan

Gender-Based Violence and Harassment (GBVH) Prevention and Response Plan for the Cassinga Power Supply Project ESIA

Report Prepared for

Pak Yatirim

Report Number 595657/GBVH Prevention and Response Plan

Report Prepared by

srk consulting

September 2024

Gender-Based Violence and Harassment (GBVH) Prevention and Response Plan for the Cassinga Power Supply Project ESIA

Pak Yatirim

Kozyatağı Village
Kaya Sultan Street
Nanda Plaza
No: A83/8 Kadıköy
İstanbul

SRK Consulting (South Africa) (Pty) Ltd
SRK House
265 Oxford Rd
Illovo 2196
Johannesburg
South Africa

Tel: +27 (0) 11 441 1111
E-mail: Johannesburg@srk.co.za
Website: www.srk.co.za

SRK Project Number 595657

September 2024

Compiled by:

Lethabo Sekele
Social Consultant

Email: lsekele@srk.co.za

Julia Bell
Social Consultant

Email: jbell@srk.co.za

Reviewed by:

Vassie Maharaj
Partner / Principal Consultant

Authors:

Julia Bell; Lethabo Sekele

Table of Contents

Disclaimer v
List of Abbreviations vi
1 Introduction 7
1.1 Purpose and scope 7
1.2 Definitions 8
2 Regulatory and policy framework 9
2.1 International, national and local legislation and guidelines 9
2.2 Organisational Policies 9
2.3 Compliance 10
3 Prevention strategies 10
4 Reporting and response mechanisms 14
4.1 Reporting procedures 14
4.2 Confidentiality 15
4.3 Support services 15
4.4 Investigation process 15
4.5 Remediation 16
4.6 Disciplinary action through formal channels 16
4.7 Mediation through traditional and communal leadership 16
5 Roles and responsibilities 17
6 Monitoring and evaluation 19
6.1 M&E activities 19
6.2 Reporting 20
6.3 Weekly, monthly and quarterly 20
6.4 Annual 21
7 Information management 21
7.1 Data management systems 21
8 Communication plan 22
9 Conclusion 23
11 References 24
Appendices 25
Appendix A: Template for site safety audit 26
Appendix B: 28
Appendix B1: Ethical guidelines for consulting GBVH survivors in M&E activities 29
Ethical and safety guidelines for collection of information on GBVH for M&E activities 30
Appendix B2: Template for consent to release information form 31

Appendix C: Training activities log 33

Appendix D: Incident register 35

GBVH incident register 36

List of Tables

Table 1-1: Standardised GBVH-related terms and definitions for uniform application across all Project sites..8

Table 3-1: Potential GBVH risks associated with the Project and recommended mitigation measures ....**Error! Bookmark not defined.**

Table 5-1: Roles and responsibilities of relevant personnel implementing and overseeing the GBVHP.....18

Table 6-1: Monitoring and evaluation of GBVHP 19

List of Figures

Figure 4-1: GBVH reporting and response process 14

Disclaimer

The opinions expressed in this report have been based on the information supplied to SRK Consulting (South Africa) (Pty) Ltd (SRK) by Pak Yatirim. The opinions in this Report are provided in response to a specific request from Pak Yatirim to do so. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate.

List of Abbreviations

CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
FDI	Foreign Direct Investor
GBV	Gender-based violence
GBVH	Gender-based violence and harassment
GBVHP	Gender-based violence and harassment Prevention and Response Plan
GBVHIMS	Gender-Based Violence Information Management System
GIIP	Good International Industry Practice
UNHCR	United Nations High Commissioner for Refugees
IFC	International Finance Corporation
IFI	International Financial Institution
IRC	International Rescue Committee
KPI	Key performance indicator
NGO	Non-governmental Organisation
OCHA	Office for the Coordination of Humanitarian Affairs
PS	Performance Standard
SADC	Southern African Development Community
SP	Social Performance
UN	United Nations
UNGP	UN Guiding Principles on Business and Human Rights
UNHCR	United Nations High Commission for Refugees

1 Introduction

The Cassinga Power Supply Project (henceforth referred to as “the Project”) presents major infrastructure development which – while bringing benefits to the targeted communities – may bring unintended negative consequences including social ills such as gender-based violence (GBV). The scale and location of the project, therefore, necessitates a comprehensive approach to managing social risks, particularly those associated with gender-based violence and harassment (GBVH). The purpose of this GBVH Prevention and Response Plan (GBVHP) is to proactively identify, prevent, and respond to GBVH risks throughout the project's lifecycle— specifically during the construction and operation phases. By addressing these risks, Pak Yatirim can safeguard the wellbeing of the communities affected by the project, its workers, and other stakeholders.

The business case for addressing GBVH risks in large-scale projects such as this one, is well documented and is increasingly being identified by International Financial Institutions (IFIs), Foreign Direct Investors (FDIs) and other relevant institutions as a critical concern. Failure to adequately address these risks can lead to disastrous consequences, including sexual exploitation of women and children, trafficking, teenage pregnancies, school dropouts, and the spread of sexually transmitted infections like HIV/AIDS (IFC, EDB and CDC 2020). Such outcomes not only harm individuals and communities but also pose substantial risks to companies, including reputational damage, financial liabilities, and loss of the social license to operate. The negative impacts of GBVH on both individuals and business operations can lead to severe consequences, highlighting the need for a comprehensive preventive and response plan.

Lessons from similar projects in other parts of the continent, reveal that social risk assessments often overlook the identification of critical determinants of GBVH. Reports from these projects highlighted some key factors contributing to increased GBVH risk, including inadequate gender and GBVH analysis during project design, lack of engagement with local experts (e.g., Non-governmental Organisations [NGOs]), poor assessment of labour influx risks and ineffective grievance mechanisms (World Bank 2018). These oversights emphasise the need for thorough GBVH risk assessments and comprehensive mitigation strategies in development projects.

1.1 Purpose and scope

This GBVHP focuses on identifying the GBVH risks to employees (particularly female), contractors, as well as women and children from the project-affected communities. In addition, the plan outlines the capacity and resources required to prevent and respond to GBVH cases effectively, underpinned by a survivor-centred approach. Included in this plan are proposed prevention measures, guidelines for effective grievance mechanisms for survivors, and key performance indicators (KPIs) to track the effectiveness of these initiatives in the form of a monitoring framework.

GBVH issues are particularly pertinent, as they can occur among workers, within supply chains, between employees and community members, or even be perpetrated by local authorities against workers. As such, the scope of this plan extends to direct employees of Pak Yatirim, contractors and their employees and the project-affected communities.

The IFC’s *Addressing Gender-Based Violence and Harassment Emerging Good Practice for the Private Sector* outlines the following overarching principles which have informed the compilation of this GBVHP and should underpin all efforts to address GBVH throughout the project:

- **Survivor-centred**: prioritise the rights and needs of people who have experienced GBVH and listen to their wishes;
- **Safe**: protect people who experience, witness or report GBVH, as well as those who seek to address it;

- **Context-specific**: base all actions on a solid understanding of the local legal and social context**;**
- **Collaborative**: work with internal and external stakeholders to identify risks, prevent GBVH and respond to reports;
- **Inclusive**: address the heightened risk of GBVH for certain groups and provides access to independent, objective and non-judgemental spaces to discuss concerns**;**
- **Integrated**: address GBVH as part of an organisation's existing processes and management systems;
- **Non-discriminatory**: locate efforts to address GBVH as part of wider approaches to promote inclusive, diverse and effective businesses; and
- **Well-informed**: draw on expertise, including from GBVH, child protection and legal experts when needed, to help inform approaches and support response.

1.2 Definitions

The Project will span a large area with multiple sites of activity. It is important to ensure that GBVH-related terms and categories are uniformly applied across all Project sites to facilitate consistent implementation of the GBVHP. Table 1-1 presents standardised definitions of GBVH-related terms, including the 'six core types of GBV'[1] as defined by the Gender-Based Violence Information Management System (GBVIMS) (GBVIMS, 2011).

Table 1-1: Standardised GBVH-related terms and definitions for uniform application across all Project sites

Key term	Definition
GBV	An umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (i.e. gender) differences between males and females. It includes acts that inflict physical, sexual or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or in private. Women and girls are disproportionately affected by GBV across the globe.
GBVH	Umbrella term for violence and harassment directed at persons because of their sex or gender or affecting persons of a particular sex or gender disproportionately, and includes sexual harassment.
GBVH risk	The potential for workers, community members or service users to experience GBVH.
Sexual exploitation	Any actual or attempted abuse of a position of vulnerability, differential power or trust for sexual purposes, including profiting monetarily, socially or politically from the sexual exploitation of another.
Sexual harassment	Any form of unwanted verbal, non-verbal or physical conduct of a sexual nature with the purpose or effect of violating the dignity of a person, in particular when creating an intimidating, hostile, degrading, humiliating or offensive environment
Survivor	A person who has experienced GBVH and survived. The terms "victim" and "survivor" are often used interchangeably. "Survivor" is the term generally preferred in the psychological and social support sectors.
Rape	Non-consensual penetration (however slight) of the vagina, anus or mouth with a penis or other body part. Also includes penetration of the vagina or anus with an object.
Sexual assault	Any form of non-consensual sexual contact that does not result in or include penetration. Examples include: attempted rape, as well as unwanted kissing, fondling, or touching of

[1] The United Nation's (UN's) Office for the Coordination of Humanitarian Affairs (OCHA), High Commissioner for Refugees (UNHRC) and the International Rescue Committee (IRC) developed a set of standardised GBVH-related terms to facilitate the production of comparable GBV statistics. The terms were developed with the understanding that many forms of GBV may not be classified as crimes, and legal definitions and terms can vary significantly between countries and regions (GBVIMS, 2011).

	genitalia and buttocks. Female Genital Mutilation/Cutting (FGM/C) is an act of violence that impacts sexual organs, and as such should be classified as sexual assault. This incident type does not include rape, i.e., where penetration has occurred.
Physical assault	An act of physical violence that is not sexual in nature. Examples include: hitting, slapping, choking, cutting, shoving, burning, shooting or use of any weapons, acid attacks or any other act that results in pain, discomfort or injury. This incident type does not include FGM/C.
Forced marriage	The marriage of an individual against her or his will.
Denial of resources, opportunities or services	Denial of rightful access to economic resources/assets or livelihood opportunities, education, health or other social services. Examples include a widow prevented from receiving an inheritance, earnings forcibly taken by an intimate partner or family member, a woman prevented from using contraceptives, a girl prevented from attending school, etc.
Psychological / emotional abuse	Infliction of mental or emotional pain or injury. Examples include: threats of physical or sexual violence, intimidation, humiliation, forced isolation, stalking, harassment, unwanted attention, remarks, gestures or written words of a sexual and/or menacing nature, destruction of cherished things, etc.

2 Regulatory and policy framework

2.1 International, national and local legislation and guidelines

The legal and policy framework for addressing GBVH is rooted in Angola's broader commitment to gender equality and human rights which finds expression in the Constitution of the principle of equal rights and responsibilities for men and women. The Constitution explicitly prohibits gender-based discrimination and privileges, establishing a foundational legal basis for gender equality. Although Angola lacks a specific national action plan targeting GBV, the country has demonstrated its commitment to gender equality and the protection of women's rights through the ratification of several key international and regional human rights treaties and instruments including:

- Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW);
- South African Development Community (SADC) Declaration on Gender and Development;
- UN Convention on the Political Rights of Women;
- UN Convention Concerning Equal Remuneration for Men and Women Workers for Equal Value;
- UN Convention Concerning Discrimination in Respect of Employment and Occupation; and
- African Charter of Human and People's Rights.

In the absence of overt legislation and national action plans specifically dealing with GBVH, the above frameworks provide a comprehensive and solid foundation for addressing GBVH within the context of the Project.

2.2 Organisational Policies

Pak Yatirim must develop and enforce comprehensive internal policies to address GBVH and align these with the GBVHP. These policies should include those emphasising zero tolerance to discrimination, physical and sexual violence, and harassment. Key components include establishing clear procedures for reporting and addressing incidents of GBVH, ensuring that all employees and contractors are aware of these policies, and regularly raising awareness among the communities surrounding the project about their rights and the mechanisms available to them. In addition, the company should implement enabling policies that promote gender equality and create a safe work environment, including training programmes and communication strategies that make the expected

standards of behaviour clear to all stakeholders involved. These policies will not only protect the rights of individuals but also foster a culture of respect and safety throughout the duration of the project.

2.3 Compliance

Ensuring compliance with the provisions of international and national legislative frameworks and/or guidelines is crucial for the successful implementation of the GBVHP. This means embedding provisions of the plan into all relevant documents used during the tendering process for contractors and implementing partners. One of the key compliance measures will be the development and enforcement of a Code of Conduct for all direct partners and contractors, stipulating mandatory adherence to GBVH-related standards. Training and capacity-building initiatives may be necessary to equip downstream partners with the knowledge and tools required to meet these standards.

The procurement process must clearly outline the management systems and behavioural codes that construction contractors are expected to implement, such as restricting workers' interaction with local communities, conducting regular training and awareness campaigns for both workers and community members, and establishing accessible grievance processes. Furthermore, the procurement documentation, including Terms of Reference and evaluation criteria, should explicitly include requirements for managing, mitigating, and responding to GBVH risks, sexual exploitation and abuse. Monitoring and evaluation should be supported by specific indicators related to GBVH prevention and response.

3 Prevention strategies

The project area is in a rural setting where GBVH risks are more likely to be pronounced due to the prevalence of gender inequality and the deep entrenchment of traditional gender roles. The potential for economic displacement, coupled with the possible influx of a largely male workforce, further heightens these risks. Failure to address GBVH could lead to severe consequences, including sexual exploitation, harassment, and increased vulnerability of women and children.

Table 3-1 below outlines the key GBVH risks associated with the project and proposes mitigation and/or prevention strategies to protect employees, contractors, and the local community, particularly women and children, from GBVH.

This table identifies specific risks that may affect various groups, including women, children, and vulnerable populations, throughout the construction and operation phases of the project. It outlines preventive measures and mitigation strategies designed to address and minimise these risks. By systematically addressing potential hazards related to the influx of workers, disruptions in community dynamics, land acquisition and resettlement, transportation, substance abuse, and modern slavery, the objective is to ensure that the project is executed with a strong commitment to protecting and supporting all affected groups. The outlined strategies emphasise the importance of rigorous hiring practices, community engagement, and continuous monitoring to foster a safe and equitable environment throughout the project's lifecycle.

Table 3-1: Potential GBVH risks associated with the Project and recommended mitigation measures

GBVH risks	Affected groups	Prevention/mitigation
Construction phase		
Influx of workers: • Increased risk of sexual exploitation and abuse due to the presence of a predominantly male workforce • Employment without conducting background checks heightens GBVH risk	• Women • Children • Employees and contractors (especially female)	• **For employees and contractors:** – Implement strict hiring practices, including background checks and verification of identity – Develop a clear Code of Conduct addressing GBVH and mandatory training for all workers – Ensure safe accommodation and transport for workers, segregated by gender where possible – Establish a multi-channel grievance mechanism which is accessible with a focus on protecting survivors, ensuring confidentiality and anonymity • **For the community**: – Conduct GBVH awareness and education campaigns to sensitise women and children about their rights – Engage local GBVH services and NGOs for support and reporting – Establish a multi-channel grievance mechanism which is accessible with a focus on protecting survivors, ensuring confidentiality and anonymity
Disruption in household and community power dynamics: • Women earning an income from work opportunities created by the project, might disrupt traditional gender roles and norms, leading to intimate partner violence and widespread GBVH including other forms of domestic violence • The presence of a large male workforce can disrupt existing power dynamics in the community, leading to potential GBVH incidents	• Women • Female-headed households • Children • Elderly	• Conduct regular and continuous stakeholder and community consultations throughout the project to understand existing power and gender dynamics and how these could be impacted • As part of project orientation, engage women on possible or preferred livelihood restoration options which will not cause significant disruption in traditional roles, values and norms • Ensure gender-sensitive monitoring and evaluation processes that include feedback from women and vulnerable groups
Land Acquisition and Resettlement:	• Women • Children • Female-headed households	• Ensure that land acquisition and resettlement processes are transparent and inclusive, paying special attention to the needs of vulnerable groups

GBVH risks	Affected groups	Prevention/mitigation
Construction phase		
• Possible physical and/economic displacement needs to be carefully managed to avoid exposing vulnerable groups to GBVH risks • Loss of livelihoods due to clearing of agricultural land, may lead to increased vulnerability to exploitation, including sex work and trafficking.	• Other vulnerable groups – including the elderly and people living with disabilities (physical and/or intellectual)	• Identify and provide tailored support to female-headed households and other vulnerable groups, including legal assistance and counselling • Integrate GBVH prevention into resettlement plans, including training for those managing the process • Develop and implement a comprehensive livelihood restoration plan to mitigate loss of livelihoods
Transportation • The transportation of materials and workers can create GBVH risks, especially if new access routes cut through community paths or are used by vulnerable people after dark. • Increased risk of GBVH for women and children due to interaction with construction workers and the use of new access routes. • Inadequate safety measures on transport routes.	• Women • Children • Other vulnerable groups – including the elderly and people living with disabilities (physical and/or intellectual)	• Plan transportation routes to avoid high-risk areas, especially those used by women and children • Provide adequate security measures such as lighting, fencing, and safe transportation options for workers and community members • Ensure transportation staff are also included in GBVH awareness and training and establish clear grievance reporting procedures for any incidents
Sex work, alcohol, and drugs abuse The presence of temporary workers in such projects often leads to an increase in sex work, alcohol, and drug abuse, which can exacerbate GBVH risks.	• Female employees • Contractors • Women • Youth • Children	• Enforce strict codes of conduct prohibiting the use of sex work, alcohol, and drugs, and include these in worker contracts • Include education on the negative impacts of these activities and their links to GBVH, for employees and the community • Partner with local organisations to provide alternative livelihood restoration opportunities for women
Modern slavery and human trafficking The Project may increase risks of modern slavery, human trafficking, and sex trafficking, particularly among vulnerable groups.	• Children • Women • Contractors	• Ensure that all contractors and suppliers are aware of and enforce anti-trafficking policies, with penalties for non-compliance. • Build an anti-trafficking component into the project design and worker training. • Engage local GBV services and civil society organisations to monitor and report any trafficking incidents.
Operation phase		
• GBVH risks persist through maintenance activities and operation-related interactions • Community members employed for long-term maintenance may face harassment.	• Children • Women • Contractors	• Continue GBVH training and awareness campaigns for operation-phase employees • Implement ongoing monitoring and regular refresher training on GBVH prevention for employees and community members. • Maintain accessible and anonymous grievance mechanisms for reporting incidents

GBVH risks	Affected groups	Prevention/mitigation
Construction phase		
		• Ensure that contractors are held accountable for adhering to GBVH policies

4 Reporting and response mechanisms

A structured mechanism for reporting and addressing incidents of GBVH should be implemented throughout the project. This mechanism ensures that all employees, contractors, and the project-affected communities are protected and have access to a transparent, confidential, and fair process for handling GBVH incidents. Given the project's scope, it is important to establish reporting procedures that are sensitive to the cultural context while ensuring the protection and wellbeing of survivors. The objective is to provide immediate support, conduct thorough investigations, and implement corrective actions as needed while maintaining confidentiality and fairness.

The process for reporting and responding to GBVH incidents is characterised by various steps, outlined in Figure 4-1 below:

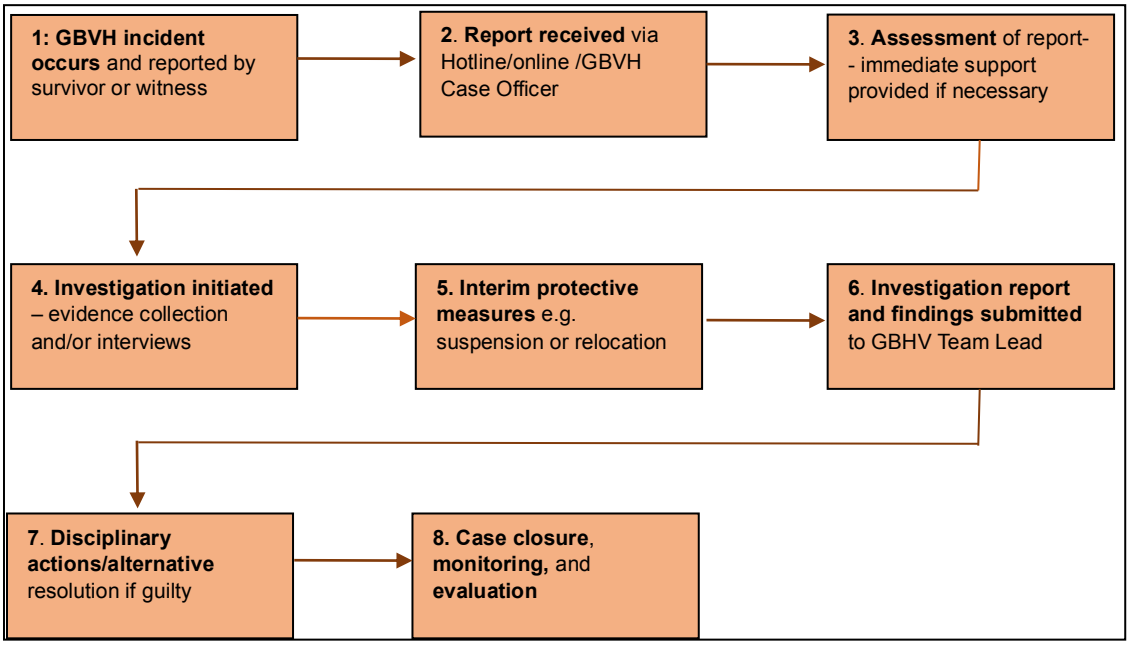


Figure 4-1: GBVH reporting and response process

4.1 Reporting procedures

To ensure accessible and timely responses to GBVH incidents, multiple reporting channels must be established for survivors or witnesses. These channels will cater to different preferences and needs to guarantee ease of access:

- Confidential, toll-free hotlines accessible to employees, contractors, and community members, should be established. These hotlines will be managed by trained personnel who are knowledgeable about GBVH and sensitive to survivors' needs, providing initial guidance and referrals to support services.
- Designated staff within Pak Yatirim and its contractors will receive specialised training on managing GBVH reports. These focal points will be responsible for escalating cases appropriately, ensuring confidentiality, and connecting survivors with necessary support services.
- A well-publicised grievance mechanism must be made available to all employees, contractors, and community members. This system will allow for anonymous and confidential submissions through suggestion boxes or digital platforms accessible in both community and workplace settings.

- Dedicated reporting desks should be established at various work sites and locations within the community. These reporting desks will offer a safe, direct, and accessible way for survivors or witnesses to report incidents and receive immediate support.
- To increase accessibility, a mobile reporting platform must be considered, to allow survivors or witnesses to report GBVH incidents via SMS or mobile apps, ensuring quick responses in rural or remote areas.

4.2 Confidentiality

Safeguarding the confidentiality of survivors and witnesses is important for encouraging reporting; key confidentiality measures include:

- Anonymous reporting where survivors and witnesses can report incidents without disclosing their identity through suggestion boxes or an online grievance platform.
- Restriction of access to GBVH reports and documentation only to authorised personnel involved in the investigation of and response to GBVH incidents.

4.3 Support services

Once a GBVH incident is reported, it is important to assess whether survivors require any support services and ensure that access is facilitated. Additional support services may include:

- Immediate access to medical care for physical injuries or health concerns resulting from GBVH.
- Psychological support through on-call counsellors and/or trauma specialists to provide mental health support.
- Access to legal advice and assistance navigating/accessing the local justice system.
- Social support which can be facilitated through partnerships with NGOs and community-based organisations for survivors to receive additional social services, such as safe housing and financial support if necessary.

4.4 Investigation process

To maintain fairness and transparency, all GBVH reports must be investigated through a structured and thorough process:

- Initial report and a preliminary assessment must be conducted to determine the severity and type of response required.
- Trained personnel must conduct interviews and gather evidence in a confidential and impartial manner, ensuring that both the survivor and the accused are treated fairly.
- Depending on the seriousness of the allegation, interim protective measures may be put in place, such as temporary suspension of the accused or relocation of the survivor to a safe house.
- A report detailing the findings and recommended actions will be submitted to the GBVH Team lead to determine the disciplinary action to be taken, should there be a guilty verdict. Where the accused is found to be innocent, the case will immediately be closed. A report detailing the findings and recommended actions will be submitted to the GBVH Team Lead.
- Psychological support may be required for accused individuals who are proven innocent by the investigation process. This is essential because being falsely accused of GBVH can have

significant emotional and psychological impacts, including stress, anxiety, and social stigma. Even after being cleared of wrongdoing, individuals may continue to face strained relationships, damage to their reputation, and may feel isolated in the workplace or community.

4.5 Remediation

In addressing GBVH within the context of the project, the remediation process will require a nuanced approach that balances formal disciplinary actions with culturally appropriate interventions. While formal mechanisms such as dismissal or legal action, play a critical role in enforcing accountability, it is important to be mindful that traditional communities may opt for alternative methods of conflict resolution. Mediation through traditional and communal leadership provides a culturally sensitive route for addressing GBVH, particularly where survivors wish to preserve familial or community relationships. This section provides both formal disciplinary measures and the integration of traditional mediation processes, ensuring that justice is pursued while also respecting local customs and community dynamics.

4.6 Disciplinary action through formal channels

Disciplinary actions for those found guilty of GBVH may include:

- Immediate dismissal of employees or termination of contracts for individuals found guilty of GBVH in accordance with Pak Yatirim's internal policies and Code of Conduct.
- Legal action in severe cases which involve criminal offences. Survivors must be encouraged to report these to local authorities and support be provided in navigating the local justice system.
- Where appropriate, offenders may be required to undergo behavioural correction programmes aimed at rehabilitation, depending on the nature and severity of the case.

4.7 Mediation through traditional and communal leadership

Formal disciplinary measures may not always be pursued in very traditional communities. In such instances, culturally appropriate mediation must be considered through traditional leaders, family elders, or religious leaders. Mediation offers an alternative, community-driven approach for resolving GBVH cases, particularly where the survivor wishes to maintain family or community ties (Hodzi, 2024).

Drawing from examples in rural settings, where traditional leaders play a pivotal role in addressing GBV, mediation may include the following:

- Mediation by **traditional leaders**, such as local chiefs or village heads, who hold cultural authority and have experience in conflict resolution. Their involvement provides a culturally sensitive process that aligns with community values.
- Involvement of **family elders** or **religious leaders**, who can mediate discussions in a manner that prioritises reconciliation while ensuring that the rights and safety of survivors are protected.
- **Traditional court systems** may be used where appropriate, with an emphasis on restorative justice aimed at healing the community and providing closure for both the survivor and the perpetrator. This process should complement, and not replace, formal legal processes, especially in cases of severe abuse or violence.

5 Roles and responsibilities

Designated personnel should be identified for implementing and overseeing the GBVHP. These individuals should be trained for handling reports of GBVH in a sensitive and timeous manner, ensuring the confidentiality of information, taking measures to protect survivors from retaliation, and facilitating access to support services such as psychological counselling, legal assistance, and medical support. It is important to ensure the designated personnel understand national law related to GBVH, including what constitutes criminal behaviour and the process for obtaining a protection order.

The roles and responsibilities of the relevant personnel that will manage the GBVHP in the various stages of the Project are detailed in Table 5-1 below.

Table 5-1: Roles and responsibilities of relevant personnel implementing and overseeing the GBVHP

Personnel and role	Responsibilities
GBVH team lead The team lead oversees all aspects of the GBVHP on-site. This role is the equivalent of a Social Performance (SP) team lead in terms of decision-making authority.	• Monitor the implementation of the GBVHP to ensure that it is effectively implemented • Ensure the Reporting and Response Mechanism is implemented in alignment with GIIP on safety and confidentiality • Oversee training and awareness-raising activities including the preparation of messaging and planning of internal and external workshops • Monitor and evaluate the effectives of training and awareness-raising activities to identify areas for improvement • Monitor record-keeping activities to ensure data is accurately recorded, securely stored and the confidentiality of survivors is maintained • Develop data collection tools for M&E activities in alignment with GIIP on consulting GBVH survivors for M&E activities • Periodically assess and review the GBVHP and Reporting and Response Mechanism to determine their effectiveness and determine if any alterations are required • Identify areas of improvement or adjustment of the risk assessment and Reporting and Response Mechanism
GBVH case officer The case officer responsible for the implementation of the GBVHP and Reporting and Response Mechanism. They are primarily involved in receiving and handling reports of GBVH.	• Receive and log reports of GBVH in the Incident Reporter, ensuring data is captured accurately and maintains confidentiality • Maintain detailed and confidential records of all case-related activities, including reports, communications, and outcomes • Serve as a point of contact for survivors and other parties involved, providing updates and information as necessary while maintaining confidentiality • Act in an appropriate manner to build constructive relationships with stakeholders • Enhance stakeholders' capacity to identify unanticipated GBVH risks by ensuring that they are kept up-to-date and informed of Project activities • Facilitate access to support services for GBVH survivors, witnesses and whistleblowers • Assist in the preparation and submission of reports and documentation related to GBVH incidents, activities, and outcome
Administrator The Administrator provides administrative and logistical support to the team lead and case officer.	• Facilitate communication between GBVH case officer, investigator, support services, and other stakeholders • Manage logistical support for GBVH activities, including arranging resources, supplies, and facilities needed for training, meetings, and support services • Assist in the preparation and submission of reports and documentation related to GBVH incidents, activities, and outcome
GBVH investigator The GBVH investigator is responsible for assessing reports of GBVH to determine the appropriate recourse.	• Collect information to investigate the GBVH report to determine the appropriate course of action • Compile and present findings in a clear, unbiased manner, including recommendations for action or disciplinary measures if necessary • Maintain strict confidentiality throughout the investigation process to protect the privacy and safety of all parties involved, especially survivors • Ensure that the investigation is conducted impartially and fairly, providing equal consideration to all parties involved and avoiding any conflicts of interest • Track the outcomes of investigations and any subsequent actions or interventions to inform future cases • Keep accurate and detailed records of all investigation activities, evidence collected, and decisions made

6 Monitoring and evaluation

M&E of the GBVHP is required to determine whether the risk assessment requires updating, evaluate the effectiveness of prevention and response measures, and assess the impact of training and awareness-raising activities.

External stakeholders should be selected to participate in the M&E activities. It is recommended that external stakeholders include representatives of the impacted and/or neighbouring communities, a representative of the local government, and a representative from a reputable and recognised CSO such as a women led organisations. Input from GBVH survivors is useful to inform the effectiveness of the reporting and response procedure, assess access to and quality of support services and gather insight on how to improve the plan.

It is recommended that the individuals representing these stakeholder groupings be changed annually to ensure the integrity of the process.

Note on consulting GBVH survivors: Caution should be exercised when involving GBVH survivors in M&E activities to prioritise safety and confidentiality. Guiding principles and recommendations for consulting GBVH survivors during M&E activities is provided in Appendix B1. Obtaining informed consent from the survivor is essential before using their case information for M&E activities. A template for a consent form is provided in Appendix B2 to guide or facilitate this process.

6.1 M&E activities

The objectives, methods, responsibilities, and frequency of monitoring and evaluation activities are outlined in Table 6-1.

Table 6-1: Monitoring and evaluation of GBVHP

Theme	Objective	Method	Responsible	Frequency
Monitoring				
Training and awareness programmes	• Measure the completion rate of GBVH training sessions among employees and contractors, and gather feedback on the quality and relevance of the sessions • Assess employees' awareness and understanding of GBVH policies and procedures • Determine the reach of GBVH awareness activities within the community, including feedback on their accessibility and usefulness	• Review training records and training feedback forms • Community survey • Review community engagement records	Team lead, external stakeholders	Quarterly
Risk assessment and mitigation measures	• Identify changes in GBVH-related risks including emerging risks and severity of existing risks • Assess effectiveness of mitigation measures	• Employee survey • Community survey • Review community engagement records	Team lead, case officer, external stakeholders	Quarterly
Reporting and response mechanisms	• Track the number of GBVH reports received, the percentage investigated and assess the response time from report submission to action • Verify the accuracy and completeness of GBVH incident	Review incident register and intake forms	Team lead, case officer	Weekly

Theme	Objective	Method	Responsible	Frequency
	records, ensuring that confidentiality is consistently maintained			
Support services	• Determine availability and utilisation of support services for survivors, including medical, psychological, and legal support • Obtain feedback from GBVH survivors on the quality and effectiveness of support services, if possible	• Employee survey • Community survey	Team lead, case officer, external stakeholder	Quarterly
Evaluation				
Training and awareness campaigns	Evaluate changes in the workplace or community culture and behaviour regarding GBVH which are attributed to training and awareness-raising activities.	Pre- and post-training surveys to gauge change in perceptions and understandings of GBVH	Team lead, external stakeholders	Quarterly for first year then every six months
Current relevance of the risk assessment and mitigation measures	• Evaluate the effectiveness of risk assessment in identifying potential GBVH risks and the success of mitigation measures in preventing incidents • Determine if risk assessment needs to be revised to reflect current project phase • Measure impact of measures on occurrence of GBVH incidents	Review and update risk assessment and mitigation measures with consideration for Project phase, progress and activities	Team lead, case officer	Monthly for first year then every six months
Reporting and response mechanism	• Evaluate the effectiveness, accessibility, and confidentiality of the mechanism for reporting GBVH incidents and the adequacy of the response actions taken • Determine whether adequate capacity and resources are in place in terms of response to GBVH reports	Review all details captured in Incident ;og	Team lead, case officer	Quarterly for first year then every six months
Support services	Assess the availability, quality, and accessibility of support services provided to GBVH survivors, ensuring they meet the needs of those affected.	• Employee surveys • Community survey • Surveys and interviews with GBVH survivors if possible	Team lead, case officer, external stakeholders	Quarterly for first year then every six months

6.2 Reporting

The team lead, with support from the case officer and Administrator, will submit reports to management at various frequencies outlined below:

6.3 Weekly, monthly and quarterly

Reports must contain the following information on activities that took place in the preceding reporting period:

- Summary of training sessions and awareness-raising campaigns undertaken including number attendees, and feedback from community members and employees on effectiveness and quality of sessions and campaigns;
- Summary of GBVH reporting and response process including number of reports of GBVH received through Reporting and Response Mechanism, percentage of reports investigated;
- Summary of any challenges experienced in identification of GBVH-related risks including emerging GBVH risks, changes in severity of existing risks and gaps in recommended mitigations measures; and
- Indication of challenges related to documentation, storage and protection of data.

6.4 Annual

The Annual report must present a summary of the following information on GBVH prevention and response in the preceding year:

- Summary of GBVH reports received during the preceding year including number submitted, percentage investigated, progress, challenges and positive impacts;
- Partnerships established with service providers, nature and status of partnership, successes and challenges;
- M&E activities undertaken; and
- Recommendations for the upcoming year for training sessions and awareness-raising campaigns, identifying the risks, devising and implementing mitigation measures, budget requirements, capacity building, protection and storage of data and partnerships to be established.

7 Information management

7.1 Data management systems

A data management system must be developed to capture and track relevant information on reported incidents of GBHV, training and awareness raising activities, and prevention and response measures.

The following tools need to be put in place:

- Training and capacity building: (Appendix C):
  - Training activities log to record of all training session undertaken (including type of activity, stakeholders engaged and objectives of engagement); and
  - Links to activities records, such as photographs, audio and video recordings, electronic copies of attendance registers and meeting minutes;
- Incident recorder (Appendix D)
- Reporting and response related templates (Appendix E):
  - Incident report form
  - Incident register

8 Communication plan

A GBVHP can only be effective if external stakeholders understand what constitutes GBVH, how to report it, the process that follows, what support services are available and how to access them. Similarly, internal stakeholders who are involved in the implementation of the GBVHP and the resolution of incidences should understand how it functions.

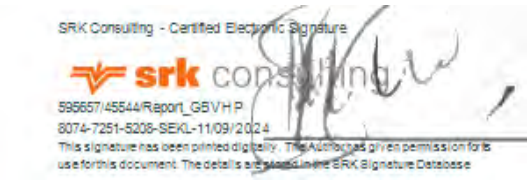
To ensure that internal and external stakeholders are aware of the GBVHP and how it functions, it is recommended that that workshops and awareness campaigns are conducted as described below:

- Internal workshops: The objective of these workshops is to build staff members' awareness of the GBVHP, thus fostering internal understanding and ownership thereof, and to ensure that the required support for the prevention and response process is provided. The workshops should be held with on-site Project staff members (e.g., Community Liaison Officer [CLO] and contractors during the construction stage);
- External communication: These workshops should be held with relevant Provincial, Municipal and traditional authorities and representatives of directly and indirectly impacted communities and selected CSOs. This will not only facilitate understanding and awareness of the GBVH, but will also leverage these key stakeholders' standing to support the sharing and understanding thereof with impacted communities;
- Community awareness campaigns: The purpose of these campaigns is to build awareness, understanding and acceptance of the GBVHP. Techniques include posters in project host communities and spaces where services are provided, and events linked to international campaigns. Simple, culturally sensitive messages about the behaviour that is expected of workers, subcontractors and suppliers are most likely to be effective (for example, "we (IFC, EDB and CDC, 2020) support a safe and harassment-free workplace for all"); and
- Awareness campaigns targeted at relatives of female employees: Conduct targeted awareness-raising campaigns where operations provide women with economic opportunities for the first time and where there are strong negative views about women working outside the home. These activities should target women's partners and family members and could include invitations to attend staff inductions.

9 Conclusion

This GBVHP has been prepared in accordance with GIIP on GBVH and provides an overview of the prevention and response requirements during all the planning, construction and operation phases of the Project. The GBVHP must be reviewed and updated annually.

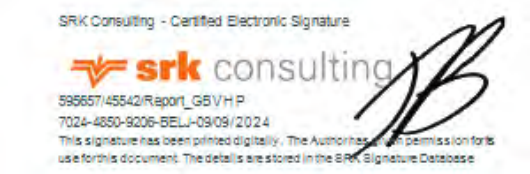
Prepared by



Lethabo Sekele
Social Consultant

Reviewed by

Vassie Maharaj
Partner / Principal Consultant



Julia Bell
Social Consultant

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

11 References

GBVIMS. (2011). *GBVIMS User Guide.*

Hodzi, B. (2024, July 31). The Role of Traditional Leadership in Addressing Gender-Based Violence in SekeCommunity, Zimbabw. *African Journal of Inter/Multidisciplinary Studies , 6*(1), 1-11.

IFC, EDB and CDC. (2020). *Addressing Gender-Based Violence and Harassment: Emerging Good Practice for the Private Sector.*

INE. (2022). *Agro-Livestock and Fisheries Census (RAPP 2019-2020): Results of the Community Report, Village Census, Volume II.* Luanda: National Statistics Institute (INE).

INE. (2023). *Employment and Unemployment Indicators. Angola Employment Survey.* Luanda: National Statistics Institute (INE).

USAID. (2014). *Toolkit for Monitoring and Evaluating Gender-Based Violence Interventions along the Relief Development Continuum.* Arlington, Virginia.

USAID. (2024). *Collective Action to Reduce Gender-Based Violence (CARE-GBV).*

Appendices

Appendix A: Template for site safety audit

Safety Audit for construction site and surrounding areas

The following template should be used as a guide to identify and assess physical safety issues from the perspective of workers, service users and community members. It should highlight potential hotspot for violence and harassment. This template is based on the sample checklist for assessing GBVH risks for workplace found in the Addressing Gender-Based Violence and Harassment: Emerging Good Practice for the Private Sector.

Area or location of inspection: **Phase:** *e.g. pre-construction, construction or operational*

Date:

Inspected by:

Inspection aspect	Example questions	Comments
Locations, grounds and access routes	• Are buildings and grounds in locations perceived to be safe by the local community? • Is there well-maintained lighting in and around grounds and access routes? • Has security equipment (such as CCTV cameras) been installed? • Are there personal alarms for workers in isolated locations or situations?	
Water, sanitation and hygiene (WASH) facilities	• Are there gender separate, lockable latrines? • Are WASH facilities conveniently located and easily accessible? • Are WASH facilities well-lit? • Is there provision of hygienic and safe sanitation disposal facilities?	
Transportation	• Is transport provided to and from worksites safe? • Are walking routes to and from waiting areas at transport facilities (including public transport stops) safe?	
Worker accommodation	• Are living facilities located within reasonable distance from worksites? • Are there separate sleeping areas for men and women (except in family accommodation), with lockable doors and windows? • Are there separate, lockable sanitary facilities located within the same buildings? • Is lighting around worker accommodation adequate and well maintained? • Are there measures in place to avoid overcrowding and lack of privacy?	
Social aspects	• Are social spaces are safe and welcoming places for all workers to use? • Are leisure areas designed to be attractive to all workers, instead of reinforcing gender stereotypes, such as only men should work out and show physical strength?	

Appendix B:

Appendix B1: Ethical guidelines for consulting GBVH survivors in M&E activities

Ethical and safety guidelines for collection of information on GBVH for M&E activities

The following recommendations should be used as a guide to ensure information on GBVH is collected, stored, used and disseminated in an ethical and safe manner. The recommendations are based on the World Health Organisation's (WHO's) *Ethical and Safety Recommendations for Researching, Documenting and Monitoring Sexual Violence in Emergencies*.

WHO's eight safety and ethical recommendations:

1. The benefits to respondents or communities of documenting sexual violence must be greater than the risks to respondents and communities;
2. Information gathering and documentation must be done in a manner that presents the least risk to respondents, is methodologically sound, and builds on current experience and good practice;
3. Basic care and support for survivors/victims must be available locally before commencing any activity that may involve individuals disclosing information about their experiences of sexual violence;
4. The safety and security of all those involved in information gathering about sexual violence is of paramount concern and in emergency settings in particular should be continuously monitored;
5. The confidentiality of individuals who provide information about sexual violence must be protected at all times;
6. Anyone providing information about sexual violence must give informed consent before participating in the data gathering activity;
7. All members of the data collection team must be carefully selected and receive relevant and sufficient specialized training and ongoing support; and
8. Additional safeguards must be put into place if children (i.e. those under 18 years) are to be the subject of information gathering.

Appendix B2: Template for consent to release information form

Consent for release of information form

This template serves as a guide for obtaining written consent from GBVH survivors to use data related to their incident for M&E activities. It is designed to ensure that survivors' rights to control their incident data are maintained and protected. The form is based on the Consent for Release of Information Form from the Gender-Based Violence Information Management System. It is advised that the form be translated and explained to the survivor in their first language.

I, _____, give my permission for [name of company] to share information about the incident I have reported to them as explained below:

- I understand that in giving my authorisation below, I am giving [name of company] permission to share the specific case information from my incident report with the service provider(s) I have indicated, so that I can receive help with safety, health, psychosocial, and/or legal needs;
- I understand that shared information will be treated with confidentiality and respect, and shared only as needed to provide the assistance I request;
- I understand that releasing this information means that a person from the agency or service ticked below may come to talk to me. At any point, I have the right to change my mind about sharing information with the designated agency / focal point listed below;
- I consent to information released to the following:

(Tick all that apply, and specify name, facility and agency/organization as applicable)

☐ Security services

☐ Psychological services

☐ Health / medical services

☐ Safe house / shelter

☐ Legal assistance services

☐ Livelihoods servuces

☐ Other

If other, please specify_____

- I have been informed and understand that some non-identifiable information may also be shared for reporting. Any information shared will not be specific to me or the incident. There will be no way for someone to identify me based on the information that is shared. I understand that shared information will be treated with confidentiality and respect.

Signatures:

I have read this consent form (or had it read and explained to me), and all my questions have been answered to my satisfaction. My signature below confirms that:

□ I agree to consent to information being released for monitoring and evaluation purposes.

□ I do not consent to information being released for monitoring and evaluation purposes.

Survivor's signature:	_____	**Date:**
Case officer's signature:	_____	**Date:**

Appendix C: Training activities log

Appendix D: Incident register

GBVH incident register

The table below is an example of a GBVH incident register that can be used for the Project. It is recommended that the register be completed in an Excel spreadsheet. The spreadsheet should contain any information that is pertinent to the Quality Management System of the Company in the header or footer, or as prescribed.

GBVH incident register *Company logo*

ID	Date and time of incident	Description of incident	Location of incident	Channel reported	Status of investigation	Outcome	Recommended course of action