

SEA Report

Project Strada-Senegal

Prepared for: **ASGC, AGEROUTE and Lenders to
the Project**

Version No: 03

SLR



DOCUMENT INFORMATION

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SLR Project Number	425.064619.00001

DOCUMENT RECORD

Rev. Number	Description	Date
00	Initial Draft for Client Comment	3 rd February 2023
01	Final Report Issued to Lenders	10 th May 2023
02	Updated Final SEA Report	21 st June 2023
03	Updated Final SEA Report issued to Lenders	11 th July 2023

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- A. Project Schedule**
- B. Environmental & Social Action Plans**
- C. Biodiversity Issues**
- D. Biodiversity Management & Action Plan**
- E. ASGC E&S Policy for Project Strada**
- F. HSE Training Plan**
- G. AGEROUTE E&S Unit**
- H. Project Components and Sourcing**
- I. Project Maps**
- J. Photo Log**
- K. ASGC ESMP Framework**
- L. Permitting Strategy**
- M. Critical Habitat Assessment Approach**
- N. Monitoring and Reporting Framework**

LIST OF ABBREVIATIONS

IEA	Initial Environmental Analysis
AGEROUTE	Agence des Travaux et de Gestion des Routes (National Roads Agency)
AIBD	Blaise Diagne International Airport
ANSD	National Agency for Statistics and Demography
BAP	Biodiversity Action Plan
BAMP	Biodiversity Action and Management Plan
BMEP	Biodiversity Monitoring and Evaluation Plan
BMP	Biodiversity Management Plan
BRT	Bus Rapid Transit
CCOD	Commission for the Supervision of State Operations
CCRA	Climate Change Risk Assessment
CDREI	Departmental Commission for Census and Evaluation of Expenses
CESMP	Construction Environmental and Social Management Plan
CF	Classified Forests
CHA	Critical Habitat Assessment
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLVF	Committee to Combat Violence against Women and Children
CM2	5th year of primary school
CPT	Technical Requirements Booklet
CSBI	The Cross Sector Biodiversity Initiative
DEEC	The Directorate for Environment and Classified Establishments
DM	The Dandé Mayo Road
DREEC	The Regional Directorate for Environment and Classified Establishments
EBRD	The European Bank for Reconstruction and Development
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EP IV	Equator Principles IV
EPS	Public Health Establishments
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management Systems
EU	The European Union
FAO	The Food and Agriculture Organisation
FGM	Female Genital Mutilation
FPIC	Free Prior Informed Consent
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GHG	Green House Gas
GRM	Grievance Redress Mechanism
HD	Heavy-duty
HRIS	Human Rights in the Information Society
HSE	Health, Safety and Environment
HSSE	Health, Safety, Security and Environment
IBA	Important Bird and Biodiversity Area

ICCPR	The United Nations International Convention on Civil and Political Rights
ICESCR	The United Nations International Covenant on Economic, Social and Cultural Rights
ICH	Intangible Cultural Heritage
ICPE	Nomenclature of Classified Installations for the Protection of the Environment
IEA	Initial Environmental Analysis
IESC	Independent Environmental and Social Consultant
IFC	The International Finance Corporation (World Bank)
ILO	The International Labour Organisation
IPPC	The Intergovernmental Panel on Climate Change
KBA	Key Biodiversity Areas
LGBTI	Lesbian, Gay, Bisexual, Transgender, and Intersex
LRP	Livelihood Restoration Plan
OECD	The Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
OMVS	Organization for the Development of the Senegal River
OSHA	Occupational Safety and Health Administration
PA	Protected Area
PAP	Project Affected People
PPE	Personal Protective Equipment
PS	The (IFC) Performance Standard
PSE	Senegal Emergence Plan
RAP	Resettlement Action Plan
RFP	Request for Proposal
RN	National Road
RoW	Right of Way
RPF	Resettlement Policy Framework
RTS	Senegalese public broadcasting company
SEA	Strategic Environmental Assessment
SEP	Stakeholder Engagement Plan
SNEEG	National Strategy for Gender Equity and Equality
SNS	Sacred Natural Sites
SSI	Senegalese Computer Society
SSP2	Shared Socioeconomic Pathways
UN	The United Nations
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNGP	UN Guiding Principles on Business and Human Rights
UNHCR	The United Nations High Commissioner for Refugees
UNICEF	The United Nations Children's Fund
US	The United States
VD	Voirie Diamniadio
WTO	The World Trade Organisation

LIST OF TERMINOLOGY

Project	Full finance package (at the moment all 3 x sub-projects)
Sub-projects	National Development Plan (PSD) Roads Vorie Diamniadio (VD) Roads Dandé Mayo (DM) Road
Project components	Individual road sections within the sub-projects
Tranches	Packages of financing made available under the line of credit to finance approved Project Components
Risk Categorisation	High (H), Medium (M), Low (L)
Contractor	ASGC
Sub-contractors	All other named local contractors - as confirmed by ASGC

1 Introduction

This document sets out the scope of works relating to carrying out the Strategic Environmental Assessment (SEA) and an E&S Screening of the National Development Plan (PSD) Roads Project (the Project) in Senegal. It also presents the findings of the assessment and presents recommendations on actions to be taken prior to signing and prior to construction for each category of E&S risk and the project components within those categories. The main SEA report is supplemented by a number of annexes.

The objective of the SEA is to be able to identify risk categories for each -project component included within the Project in order to determine the E&S risk of each of the -project components and the related level of E&S assessment required. The SEA also presents an assessment of the overall project to the level of detail to support signing. This SEA is also to be used to develop the work packages into which Project Strada will be divided and structured.

In terms of an overall categorisation of the Project, based on IFC and OECD requirements, SLR feels that it should be categorised as a Category A project recognising however, that significant numbers of individual -project components may, subject to further data collection and assessment, be Category B or C. The categorisation reflects the significant E&S risks identified for some issues such as biodiversity (Annexe C lists key biodiversity issues) and resettlement and livelihood impacts, issues of climate resilience and the need for Project-scale assessments to be carried out, for example a Critical Habitat Assessment (Annexe M provides an approach for CHA).

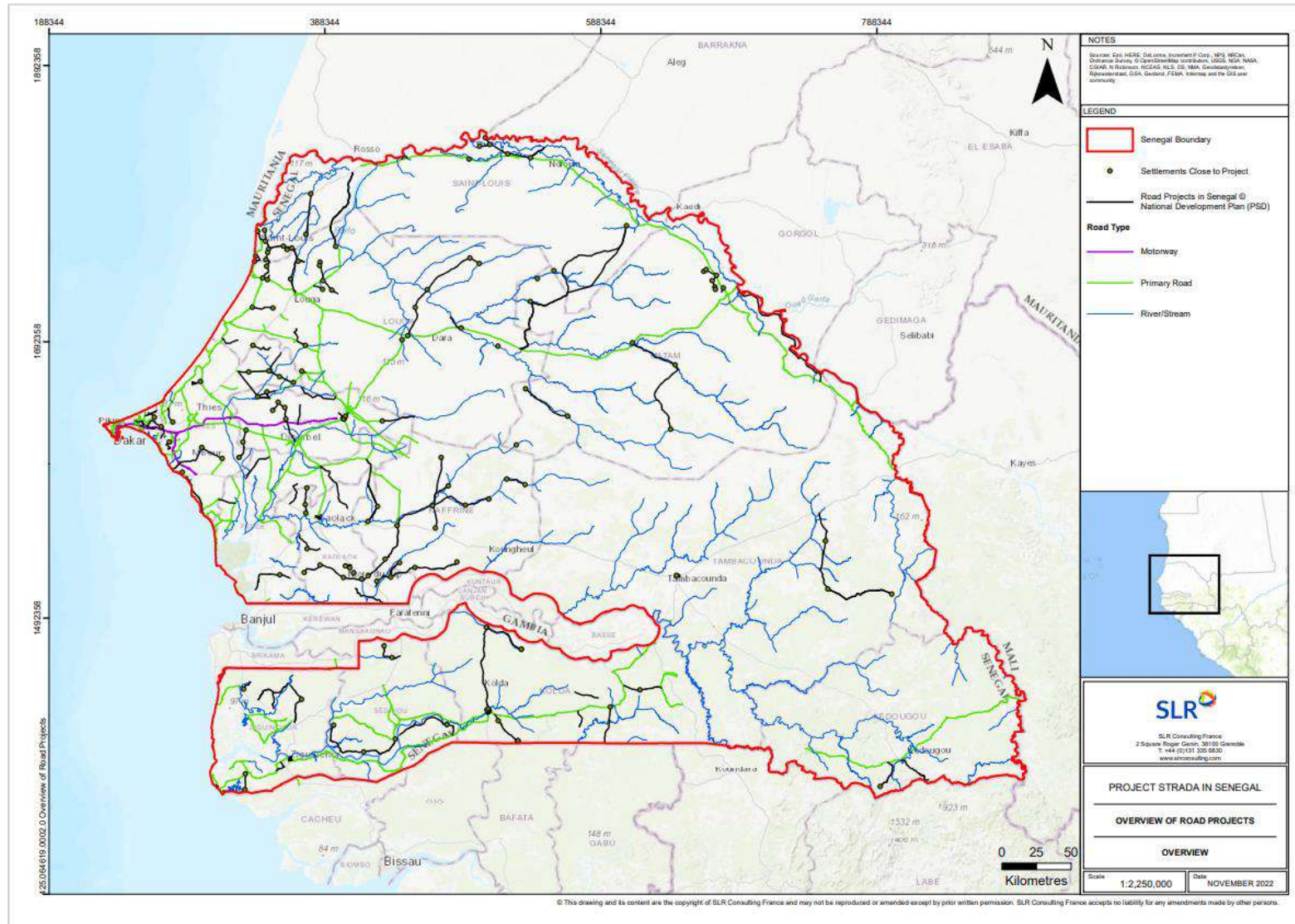
The categorisation also reflects the need for further development of a programmatic approach to implementation of the Project and the need for an extensive programme of assessments for individual project components.

1.1 Project Context

Project Strada is an element of the larger National Development Plan of Senegal (PSD). AGEROUTE the National Roads Agency of Senegal is the government agency responsible for delivering the roads component of the PSD. It is an executive agency of the Ministry of Infrastructure, Land Transport and Opening Up. AGEROUTE will also be responsible for the overall supervision of the works for the PSD. The Plan is designed to improve the economic development of Senegal since it is recognised that constructing, reconstructing, and rehabilitating the national road network is fundamental to improved connectivity and economic growth. Figure 1-1 below provides an overview of the Plan nationally, while Annexe I provide an overview the Plan within the 14 administrative regions in Senegal.

ASGC has been appointed to manage the implementation of a portion of the PSD Roads programme and the associated engineering and construction contractors.

Figure 1-1: Overview of Road Networks Associated with the PSD in Senegal



In developing the SEA Report, the following activities have been undertaken by SLR as presented in sections 1.2 - 1.11 below.

1.2 Review of Background E&S Information Supplied by ASGC And AGEROUTE

The review of the background E&S information was done using the following information provided to SLR by ASGC and AGEROUTE:

- Design profiles for three types of roads
- National ESIA's of selected PSD roads (these do not take account of Lender standards)
- National Resettlement Policy Framework
- National ESMF
- Background information on the Dande Mayo and Voirie Diamniadio Roads
- ASGC Policies on Worker Welfare, Grievance Management, Employment etc
- ASGC environmental and social policies and plans
- ASGC ESMP

1.3 Review of Available Design and Technical Information on the PSD Roads

High-level details of some design aspects have been received and reviewed as part of this SEA. Further discussions on design criteria, detailed route alignments and specifications will need to be held with AGEROUTE prior to development of the ESIA's and production of the Final RPF and RAP/LRPs.

Updated design and alignment data may also affect the risk categorisation of components. This will need review and agreement with the Lenders.

1.4 Identification of Potential “Red Flags” or Key E&S Risks

Potential red flags identified to date (and confirmed during the Field Visit) include:

- Physical resettlement-especially in towns and villages due to encroachment into the Right of Way (RoW) by legal and illegal structures
- Economic resettlement of domestic and commercial activities due to encroachment into the RoW by legal and illegal structures including market stalls, shops etc
- Effects on people without legal title to land or assets-which is the situation for most people.
- Climate change risk in coastal and other areas –some infrastructure is already being affected in Senegal and infrastructure is seen as being one of the highest risk areas for impacts from climate change in the country. This may affect both the design and construction of roads in the PSD and the need to ensure their resilience.

- Work packages entirely or partially in protected areas or areas of significance for biodiversity-this appears to be quite common and affects a significant percentage of PSD roads.
- Work packages in the area close to the Gambia-Senegal border and in the region of Casamance both of which are regarded as high risk and are also likely to have high numbers of vulnerable people including migrants.

It should be noted that many of these issues are not necessarily specific to the PSD but are common to many road schemes in West Africa and elsewhere.

1.5 PSD and Other Roads

The work of the SEA has focused on the PSD roads. This is the part of the PSD for which most information is currently available (as regards ASGC's involvement and the potential financing package).

The table below, developed by AGEROUTE lists all the project components currently within ASGC's scope within the overall PSD. It also provides details of the types of construction and rehabilitation proposed. Table 1-1 below provides basic information on the project components to be assessed by the Project and their current condition and planned upgrading/construction. Refer to Annex I for regional maps showing Project Components.

TABLE 1-1: Basic Information on the PSD Road Project Components to be Assessed by the Project

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
1	Kedougou	N13B2	Bandafassi - Dindéfelo	23.987	-12.323937	12.382816	-12.271812	12.5423	Surfaced Track	6	Reconstruction	Heavy Duty Asphalt Paving	2	7
2	Tambacounda	PNC	Goudiry - Dougue - Dianke Makha Sadatou	112.12	-12.235127	13.640796	-12.713787	14.1757	Surfaced Track	6	Rehabilitation	Improved double layer Road	2	7
3	Sedhiou	PNC	Boudier (Sedhiou Bambali - Djiredji - Djibabouya - Marsassoum)	73.788	-15.557671	12.712248	-15.970164	12.7951	Gravel Road	6	Reconstruction	Heavy Duty Asphalt Paving	2	7.2
4	Sedhiou	PNC	Cf RN4 Sare Alkaly Bogal - Ndiamekouta	20.595	-15.52693	13.249768	-15.633211	13.3156	Gravel Road	6	Reconstruction	Heavy Duty Asphalt Paving	2	6
5	Sedhiou	D11100/D1100B1	Karantaba - Sare Tening (Boucle Pakao2)	44.734	-15.177041	12.732312	-15.471104	12.7766	Gravel Road	6	Reconstruction	Gravel Road	2	6
6	Sedhiou	PNC	Unsurfaced Sandiniery - Djidinki (Boucle Pakao1)	15.848	-15.531604	12.731223	-15.423285	12.8158	Gravel Road	6	Reconstruction	Heavy Duty Asphalt Paving	2	6
7	Kolda	PNC	Kolda - Salikenie	26.438	-14.740823	12.694228	-14.897507	12.8681	Gravel Road	6	Reconstruction	Improved double layer Road	2	7.2
8	Kolda	PNC	Kolda - Pata	64.287	-14.948866	13.437654	-14.940663	12.8923	Gravel Road	6	Reconstruction	Heavy Duty Asphalt Paving	2	7.2
9	Kolda	PNC	Awataba - Diatafa - Kossanke - Diankankounda	17.826	-14.203137	12.975072	-14.357567	13.0133	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
10	Kolda	PNC	Mampatim - Pidiro - Sare Dembeyel - Sare Kanta	12.979	-14.336354	12.888813	-14.329245	12.7857	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
11	Kolda	D7302	Kabendou - Wassadou - Frontiere Guinee	27.241	-14.122263	12.914196	-14.159894	12.6778	Gravel Road	6	Rehabilitation	Improved double layer Road	2	7.2

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
12	Ziguinchor	D208	Boucle du Fogny 1 (Bignona - Sindian - Djibydone)	34.298	-16.231264	12.811416	-16.262768	13.0591	Gravel Road	6	Rehabilitation	Heavy Duty Asphalt Paving	2	7.2
13	Ziguinchor	PNC	Boucle du Fogny 2 - (Cf Rn5) Barandir - Biti Biti	13.74	-16.3724	12.901959	-16.373922	13.0145	Gravel Road	6	Rehabilitation	Heavy Duty Asphalt Paving	2	7.2
14	Ziguinchor	PNC	Kataba (Cfn5) - Medina Cherif	8.171	-16.575288	13.026015	-16.532942	13.0767	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
15	Ziguinchor	PNC	Ebinako - Katipeu	12.694	-16.395243	13.026667	-16.474091	12.96	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
16	Kaolack	PNC	Lamarame - Ndiendieng	9.377	-16.068271	13.950543	-16.15127	13.9479	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
17	Kaolack	PNC	Firgui - Dabal - Kaymor - Thiesse	31.048	-15.692714	13.701912	-15.528884	13.8646	Gravel Road	6	Rehabilitation	double layer Road	2	6
18	Kaolack	PNC	Kaymor - Sokonrong - Darou Khoumass Nganda	20.879	-15.587958	13.768808	-15.422705	13.8335	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
19	Kaolack	PNC	Sibassor - Ndiebel	18.481	-16.155496	14.346741	-16.162709	14.1838	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
20	Kaolack	PNC	Guinguineo - Ngoloum	9.014	-15.940989	14.268334	-15.884736	14.2154	Unsurfaced Natural Trail	6	Construction	Improved double layer Road	2	6
21	Kaolack	PNC	Gandiaye - Daoule	19.811	-16.272001	14.242675	-16.221928	14.375	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
22	Kaolack	PNC	Keur Waly Ndiaye - Ndiendieng	13.65	-16.1529	13.949895	-16.208575	14.0435	Unsurfaced Road	6	Construction	Improved double layer Road	2	6
23	Kaffrine	R41	Kaffrine - Ndioum Guente	52.22	-15.200244	14.36458	-15.542884	14.1015	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
24	Kaffrine	D4104	Biekelane - Mbos - Mbar	80.733	-15.745559	14.369669	-15.757111	14.5363	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
25	Kaffrine	R40	Pathé Thiangaye - Médinatoul Salam - Nganda	33.799	-15.423461	13.833511	-15.142097	13.8665	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
26	Kaffrine	PNC	Ribo - Darou Koum Koum	14.282	-14.691665	14.373722	-14.810932	14.4113	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
27	Kaffrine	PNC	Delbi - Pafa - Guent Pathe	45.503	-15.305562	14.236239	-14.929241	14.2789	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
28	Fatick	R031	Keur Martin - Diohine - Wakhal Diam	25.615	-16.570682	14.405863	-16.41042	14.5491	Gravel Road	6	Rehabilitation	Double layer Road	2	6
29	Fatick	D3202	Toubacouta - Missira	12.609	-16.468601	13.780892	-16.500474	13.6821	Gravel Road	6	Rehabilitation	Double layer Road	2	6
30	Fatick	D5101	Gossas - Guelou - Nguinguineo	31.471	-16.065602	14.489944	-15.939681	14.2735	Gravel Road	6	Rehabilitation	Double layer Road	2	6
31	Fatick	R50	Toubacouta - Keur Saloum Diane	22.627	-16.468326	13.780985	-16.266153	13.7567	Gravel Road	6	Rehabilitation	Double layer Road	2	6
32	Fatick	PNC	Djilas - Ngueniene	12.405	-16.638143	14.245794	-16.748919	14.2693	Gravel Road	6	Rehabilitation	Gravel Road	2	6
33	Louga	PNC	Bandeigne - Tieppe	15.438	-16.529774	15.528728	-16.391454	15.5237	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
34	Louga	PNC	Cf/R3 - Tiamene Pass	2.433	-15.511667	15.319975	-15.534008	15.3216	Gravel Road	6	Construction	Heavy Duty Asphalt Paving	2	6
35	Louga	PNC	Kab Gueye - Tawa Peulh	13.883	-16.629096	15.312528	-16.733663	15.3242	Gravel Road and a part Unsurfaced	6	Construction	Heavy Duty Asphalt Paving	2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
36	Louga	PNC	Ndande - Ngagne Diouf YC Bretelle de Darou Ndiaye	16.307	- 16.52839 3	15.28099 8	- 16.40779 4	15.2658	Unsurfaced Natural Trail	6	Construction	Double Road	layer 2	6
37	Louga	PNC	Ndiam Fall - Ngoufatt 2	3.358	- 16.43223 9	15.71231 6	- 16.42027 6	15.7393	Surfaced Track	6	Reconstruction	Double Road	layer 2	6
38	Louga	PNC	Mbeuleukhe - Tessekre - Diagle	48.471	- 15.34962 4	15.64702 8	- 14.98885 9	15.8199	Part Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
39	Louga	PNC	Keur Madiale Fall -Ndeye Satoure - Warene	28.988	- 15.95557 4	15.62084 4	- 16.07263 9	15.8282	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
40	Louga	PNC	Route de Niomre	7.543	- 16.11669	15.67361 4	- 16.05131 8	15.6504	Gravel Road and a part Unsurfaced	6	Reconstruction	Gravel Road	2	6
41	Dakar	PNC	Bambilor - Lac Rose	6.993	- 17.18417 8	14.80193	- 17.22875 7	14.8325	Unsurfaced Natural Trail	6	Construction	Double Road	layer 2	6
42	Dakar	PNC	Deni Birame Ndiào Sud - Benoba	4.443	- 17.17278	14.84849 1	- 17.20797 1	14.8269	Unsurfaced Natural Trail	6	Construction	Double Road	layer 2	6
43	Dakar	PNC	Keur Ndiaye Lo - Sébi Ponty	8.64	- 17.24155 8	14.7447	- 17.17234	14.7408	Unsurfaced Natural Trail	6	Construction	Double Road	layer 2	6
44	Dakar	PNC	Keur Ndiaye Lo - Cite Almadies II	6.952	- 17.24155 8	14.7447	- 17.20214 8	14.7836	Unsurfaced Natural Trail	6	Construction	Bituminous Concrete	2	7.2
45	Dakar	PNC	Keur Daouda Sarr - Fass Kounoune Ngalap - Base Militaire - Almadies	4.573	- 17.27596 1	14.74503 3	- 17.26627 3	14.7595	Unsurfaced Natural Trail	6	Construction	Bituminous Concrete	2	7.2
46	Dakar	PNC	Noflaye - Niakhirate Peul - Sebikotane	8.093	- 17.19740 2	14.78257 6	- 17.13677 5	14.7428	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
47	Matam	PNC	Oudalaye - Siwi Yabe (Salalatou)	55.844	- 13.65590 5	15.12368	- 13.70528 7	14.7309	Unsurfaced Natural Trail	6	Construction	Double Road	layer 2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
48	Matam	PNC	Louguere Thioli - Tioukoungal - Badagor	34.085	-14.64686	15.569806	-14.497154	15.775	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
49	Matam	PNC	Ranerou - Oudalaye	39.412	-13.655905	15.12368	-13.957672	15.2955	Gravel Road	6	Construction	Improved double layer Road	2	6
50	Matam	PNC	Nabadji - Sedo Sebe - Taiba Thianene	10.022	-13.389175	15.737965	-13.474247	15.7671	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
51	Thies	PNC	Pekesse - Diemoul	16.272	-16.418983	15.112198	-16.336455	15.2336	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
52	Thies	R130	Mekhe - Pekesse - Thilmakha	41.992	-16.251544	15.037708	-16.623726	15.1068	Very Degraded double layer Road	6	Reconstruction	Improved double layer Road	2	6
53	Thies	PNC	Boukhou - Packy	0.965	-17.11152	14.681352	-17.117173	14.6746	Road to be Surfaced	6	Construction	Improved double layer Road	2	6
54	Saint Louis	PNC	Degou Niaye - Mouit	8.047	-16.514879	15.829736	-16.5065	15.8681	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
55	Thies	PNC	Diass - Mbayar	3.075	-17.084096	14.640748	-17.107121	14.6251	Improved or double layer Road	6	Construction	Improved double layer Road	2	6
56	Diourbel	PNC	Diourbel - Gawane	39.838	-16.239656	14.653768	-16.389935	14.8541	Gravel Road	6	Rehabilitation	Rehabilitation	2	6
57	Thies	PNC	Kandam - Sebikhotane	10.092	-17.136775	14.742785	-17.142084	14.6669	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
58	Diourbel	R021	Keur Nganda - Baba Garage -	13.076	-16.491601	14.94557	-16.376548	14.9828	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
59	Thies	D13102	Liaison Ngaparou	7.329	-17.054187	14.467776	-17.004428	14.5116	Very Degraded	6	Rehabilitation	Improved double layer Road	2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
									double layer Road					
60	Saint Louis	PNC	Mbatias Dieye - Leona	20.347	-16.346828	15.864165	-16.463989	15.7194	Unsurfaced Natural Trail	6	Construction	Improved double layer Road	2	6
61	Saint Louis	PNC	Ndiassene Ross Bethio	29.926	-16.168359	16.010439	-16.139109	16.2794	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
62	Diourbel	PNC	Ndindy - Autoroute Ila Touba	14.055	-16.204893	14.892135	-16.219001	14.7671	Gravel Road	6	Construction	Heavy Duty Asphalt Paving	2	7.2
63	Saint Louis	PNC	Ngalel - Maka Toube - Gandon Cf/Rn2	9.378	-16.444389	15.96154	-16.445868	16.0387	Gravel Road	6	Rehabilitation	Heavy Duty Asphalt Paving	2	6
64	Saint Louis	PNC	Podor - Guede - Ndioum	40.285	-14.963354	16.654516	-14.634492	16.5086	Part is Unsurfaced Natural Trail (Guédé - Ndioum)	6	Rehabilitation/Construction	Heavy Duty Asphalt Paving	2	6
65	Thies	D13204	Pout - Keur Matar Gueye Ndam Cf N8	12.488	-17.092849	14.864215	-17.062468	14.7621	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
66	Saint Louis	PNC	Raoul Peul - Leona	26.202	-16.463989	15.719423	-16.419959	15.9106	Unsurfaced Road	6	Construction	Improved double layer Road	2	6
67	Diourbel	D02306	Sadio - Guerle - LR Louga	12.493	-15.545734	14.798077	-15.4361	14.8148	Gravel Road	6	Construction	Improved double layer Road	2	6
68	Diourbel	D02306	Taif - Sadio	11.438	-15.650875	14.788118	-15.545734	14.7981	Gravel Road	6	Rehabilitation	Improved double layer Road	2	6
69	Thies	PNC	Voirie de Saly	3.805	-16.980712	14.446068	-17.014662	14.4411	Unsurfaced Natural Trail	6	Construction	PCC Pavers	2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
70	Kedougou	PNC	Kedougou - Fongolembi	28.521	-12.180688	12.556136	-12.00111	12.4259	Surfaced Road	6	Construction	Double layer Road	2	6
71	Ziguinchor	PNC	Ebinako - Djibidione	29.698	-16.280022	13.068903	-16.474091	12.96		6	Construction	Double layer Road	2	6
72	Kaolack	D5301	Nioro - Taiba Niassene - Keur Madiabel - Drame Escale - Sokone	48.946	-15.774917	13.745537	-16.165993	13.7951	Gravel Road	6	Rehabilitation	Gravel Road	2	6
73	Thies	D13200	Ndiagianiao - Tassette - Guekhokh	38.933	-16.726184	14.534256	-17.004428	14.5116	Gravel Road	6	Construction	Bituminous Concrete	2	6
74	Thies	D13100	Mbour - Joal	34.158	-16.848363	14.170239	-16.966923	14.4107	Degraded Road	6	Construction	Bituminous concrete and PCC Pavers	2	7.2
75	Dakar	PNC	Kounoune - Dara Tioub - Jaxaay -Keur Massar	8.956	-17.25396	14.754524	-17.313484	14.7795	Unsurfaced Natural Trail	6	Construction	Bituminous Concrete	2	6
76	Thies	PNC	Dias N1 - Samkedji - Raffo	8.095	-17.084096	14.640748	-17.092948	14.5945	Gravel Road	6	Construction	Improved double layer Road	2	6
77	Diourbel	PNC	Darou Khafor - Missira	31.802	-15.967674	14.952106	-16.197873	15.0073	Gravel Road	6	Rehabilitation	Heavy Duty Asphalt Paving	2	6
78	Diourbel	VU	Sortie Autoroute Ila Touba - Contournement Mbacké	6.918	-15.905416	14.796547	-15.946827	14.8407	Unsurfaced Natural Trail	6	Construction	Heavy Duty Asphalt Paving	2	6
79	Diourbel	VU	Contournement (Darou Salam Mbacké - Touba)	5.04	-15.906175	14.801635	-15.882876	14.8401	Gravel Road	6	Construction	PCC Pavers	2	6
80	Matam	PNC	RN2 - Boynadji	2.746	-13.345228	15.647388	-13.359348	15.6269	Unsurfaced Natural Trail	6	Construction	Improved double layer Road	2	6

N o.	Description				Coordinates				Existing Conditions			Proposed Intervention		
	Region	Code	Section / Communities	Length (Km)	X / Y Route Starting		X / Y Route Ending		Wearing Course	Width (m)	Works Type	Wearing Course	No. Of Lanes	Width (m)
81	Matam	PNC	Sinthiou Mbal (N2) - Taiba Et Pete Niebe Moba Tafsir Balla	9.531	- 13.397014	15.646215	- 13.403045	15.7204	Improved or double layer Road	6	Rehabilitation	Improved double layer Road	2	6
82	Matam	PNC	Velingara Ferlo - Thiounouh	43.013	- 14.743048	14.635875	- 14.678879	15.0003	Unsurfaced Road	6	Construction	Gravel Road	2	6
83	Matam	PNC	Velingara - Mbem Mbem	37.844	- 14.402512	14.820084	- 14.678879	15.0003	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
84	Louga	PNC	Darou Marnane - Darou Mousty Route de Bouchera	2.663	- 16.170911	15.104371	- 16.193922	15.113	Gravel Road	6	Reconstruction	Gravel Road	2	6
85	Kaffrine	R50	Kaffrine - Sinthiou Wanar - Nioro	51.779	- 15.545717	14.105075	- 15.775068	13.7454	Gravel Road	6	Rehabilitation	Gravel Road	2	6
86	Thies	D13100	Ndangalma - Fissel	22.032	- 16.614483	14.542139	- 16.566491	14.725	Gravel Road	6	Construction	Improved double layer Road	2	6
87	Matam	R90	Route du Dandé Mayo SUD	130	- 13.251843	15.646463	- 12.698352	15.035884	Gravel Road	6	Construction	Bituminous Concrete	2	7.2
88	Louga	RN2	Louga-Saint Louis	68	- 16.242079	15.628151	- 16.498611	16.025623	Degraded Road	6	Maintenance	Improved double layer Road & Maintenance	2	7.2
89	Matam	PNC	Boke Dialloube Karawendou - GayeKadar - Ndiayene Djolof - Loumbellana	110	- 13.995831	16.053895	- 14.72406	15.261934	Unsurfaced Natural Trail	6	Construction	Gravel Road	2	6
90	Kaffrine		Malem Hodar - Delbi - Darou Miname	88	- 15.29277	14.086721	- 15.400684	14.815923	Gravel road	6	Construction	Improved double layer Road	2	6

1.6 Preliminary Categorisation of E&S Risks for High, Medium and Low Risk PSD Project Components

SLR carried out an initial scoping and E&S risk categorisation based on the Lender’s requirements and guidance and SLR’s own experience of working in Senegal and elsewhere in West Africa on transport schemes. The results of the detailed risk categorisation based on secondary data and limited field observation of some project components are presented in section 6.2 of this report. The E&S risks were categorised as High, Medium, Low or as a hybrid of High/Medium. The categorisation also drew upon national ESIA’s for some project components of the PSD and the national ESMF.

N.B. Any changes to the design of components may affect their risk categorisation. This will be reviewed by the Project E&S team and discussed with the Lenders. Furthermore, project components may undergo re-categorisation due to biodiversity / social aspects that may be identified (or lack thereof confirmed) during next stages of the project as a result of ground-truthing or further assessments.

1.7 Development of the Programme for the Field Visit

A Field visit has been carried out by AGEROUTE, ASGC and SLR staff. The programme took account of E&S sensitivities, categories of roads, logistics and H&S considerations. The plan for the visit is presented in Table 1-2 below. The visit took place from November 26 to December 3rd, 2022.

TABLE 1-2: Field Visit Programme and Project Components Visited

Date	Activity	Components	Team
26/11/2022	Arrival in Dakar (SLR Team)		
27/11/2022	- Meeting with ASGC/AGEROUTE - Transfer to Kaolack	Mbour-Joal Keur Martin - Diohine - Wakhal Diam	Team 1 & 2
28/11/2022	Fatick/Kaolack	Missira - Toubacouta	Team 1 & 2
		Toubacouta - Keur Saloum Diane	
		Nioro - Taiba Niassene - Keur Madiabel - Drame Escale – Sokone	
		Porokhane - Poste Keur Ayip *	
29/11/2022	Kaolack	Kaymor - Sokonrong - Darou Khoudoss Nganda*	Team 1 & 2
		Firgui - Dabal - Kaymor – Thiesse	
		Kaffrine - Sinthiou Wanar – Nioro	
		Lamarame - Ndiendieng Nioro à Keur Sountou	
30/11/2022	Transfer to Saint Louis	Louga-Saint-Louis	Team 1
		Rao-Peulour – Leona	
		Ngallele - Maka Toube - Gandon Cf/Rn2	
		Mbatias Dieye – Leona Degou Niaye – Mouit	
01/12/2022	Saint Louis	Ndiassene - Ross Bethio	Team 1
		Podor - Guede – Ndioum	
02/12/2022	Return to Dakar (Team 1)		

Date	Activity	Components	Team
30/11/2022	Transfer to Kolda	Marsassoum- Djibabouya-Djiredji-Bambali-Sedhiou	Team 2
01/12/2022	Kolda	Kolda – Selikenie (Salikégné)	Team 2
		Kolda – Pata	
		Pata - Medina Yoro Foulah *	
02/12/2022	Return to Dakar (Team 2)		
03/12/2022	<ul style="list-style-type: none"> - Meeting ASGC /AGEROUTE - Return of SLR Team 		

* Project components that were not visited during the field visit. In the case of the Kaymor-Nganda project component, only the stretch from Kaymor to Sonkorong was visited as the remaining stretch is similar to the already visited Firgui-Thiesse road according to AGEROUTE.

1.8 Implementation of the Field Visit

The field visit was carried out together with AGEROUTE, ASGC and SLR staff. Accompanying SLR staff during this field visit was OSIEC (an E&S Consultant with vast experience in Senegal and West Africa as a whole). The AGEROUTE staff were engineers and members of its E&S team, ASGC was represented by its in-country E&S specialist and both SLR and OSIEC were represented by E&S specialists including a biodiversity specialist. Project components in Kaolack and Fatick were jointly visited by the whole team and then the team was divided into two; with Team 1 going to visit the designated project components in and around St Louis, and Team 2 visiting those in Sedhiou and Kolda.

1.9 Collection and Analysis of Field Data

SLR together with OSIEC collected data during the field visit. AGEROUTE provided guidance and explanations during the collection of the field data. Data was collected principally through observation. At certain locations, brief discussions with locals revealed other potential social impacts the project component could have on the locals (with proposed solutions). One of such a case was a discussion with nomadic herdsman who said that the route when tarred, would no longer permit them to transport their cattle along it. They requested for a path to be created for them along the RoW. Most of the observations were documented through photographs (Annex J). Data collection focused mainly on two main aspects: environmental and social aspects.

Environmental aspects focused on the project’s potential impact on some important pre-identified biodiversity sensitive areas along the project components and identifying other biodiversity or environmentally sensitive areas that could be impacted by the project (refer to Annex C for detail of biodiversity aspects). Social aspects focused on the project’s potential impact to the local population along the various project components and their local populations’ economic, cultural, and social activities. Potential displacement of the local population from their homes and from their economic activities and potential effects on the key infrastructure within communities that could be affected by the project were other aspects taken into consideration.

1.10 Updating of Risk Categorisation of PSD Project Components Based on Secondary Data and Results of the Field Visit

As a result of the Field Visit, the initial risk categorisation prepared by SLR was revisited and updated based on field data, a review of available secondary data discussions with AGEROUTE and inputs from OSIEC. This process has allowed for revisions to the initial categorisation and has also highlighted additional issues that have been included in the risk rating for individual project components.

2 Project Background and Description

This project (Project STRADA) involves the construction and rehabilitation of three sub-projects in Senegal, namely:

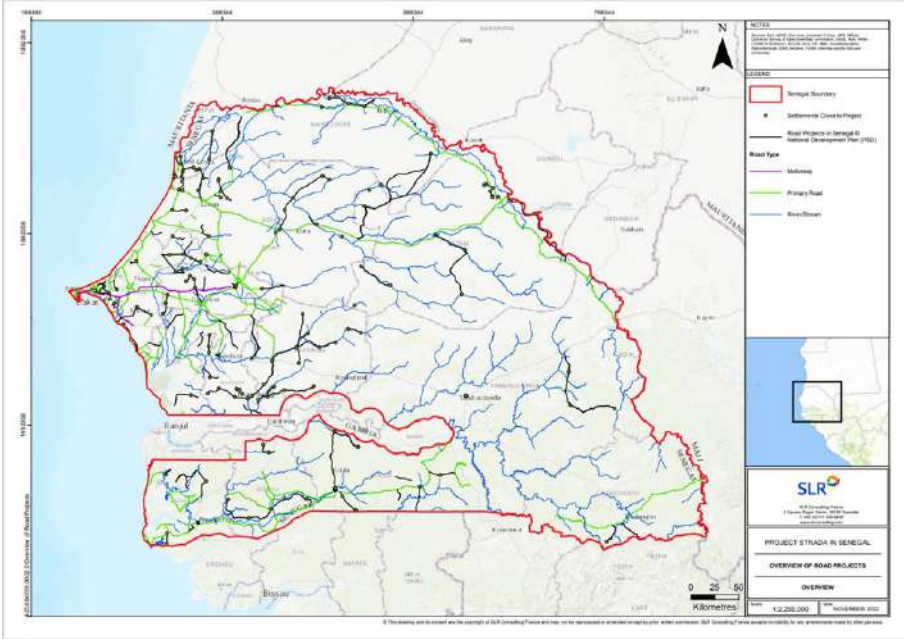
- The National Development Plan (PSD) Roads (**Figure 2-1**)
- The Voirie Diamniadio (VD) Roads (**Figure 2-3**)
- The Dandé Mayo (DM) Road (**Figure 2-4**)

These sub-projects are on the government’s high priority list but are at different stages in terms of the development of E&S documentation. In this report, the following terminology will be used:

- ❖ Tranches – packages of financing made available under the line of credit to finance approved Project Components
- ❖ Project – full finance package (at the moment all 3 x sub-projects)
- ❖ Sub-projects – PSD, VD, DM
- ❖ Categorisation – High (H), Medium (M), Low (L)
- ❖ Project components – Individual road sections within the sub-projects
- ❖ Contractor – ASGC
- ❖ Sub-contractors – all other named local contractors - as confirmed by ASGC

Project Strada is designed to assess (at a strategic level) the potential E&S risks associated with a number of roads targeted for upgrading, rehabilitation or construction within Senegal’s Strategic Development Plan or PSD for roads. The Project aims to improve rural accessibility (PSD) throughout the country by building or rehabilitating around 2662.8km of road sections and improve Dakar’s traffic in the new Diamniadio district. The project components within the national PSD road programme have not yet undergone any international Environment and Social (E&S) Assessments.

Figure 2-1: PSD Roads



[Refer to Figure 1-1 above for large version]

The Voirie Diamniadio (VD) Roads

This sub-project involves the construction of c.10 new roads with a total length of 11.5km connecting the National Football Stadium to existing adjacent roads in Diamniadio. Diamniadio is a new city being developed in Senegal, located southeast of Dakar within the Dakar-Thiès-Mbour triangle. It is bounded on the east by Diass and Sébikotane, on the north by Lac-Rose and on the south by the cities of Mbour and Thiès. The city of Diamniadio will, in the long term, be an urban centre with all the necessary facilities including housing and road infrastructure to enable it to play an important role in the economic and social life of Senegal. This vision of the city of Diamniadio is in line with the objectives of the *Plan Sénégal Emergent* (Senegal Emergence Plan) (PSE).

Some of the key infrastructure in the city will include: the National Stadium, Dakar Arena, Amadou Mahtar MBOW University and a Government Building hosting several ministries.

FIGURE 2-2: SOME KEY INFRASTRUCTURE IN CITY OF DIAMNIADIO



National Stadium



Dakar Arena



Amadou Mahtar MBOW University, Dakar

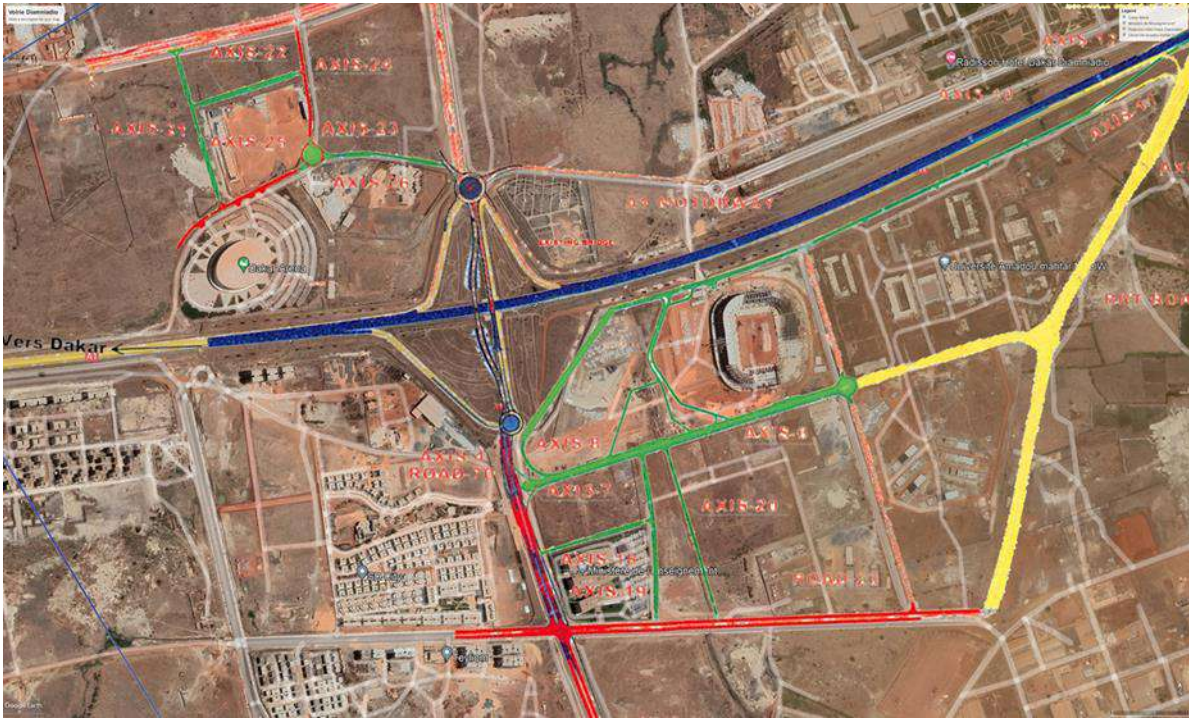


Government Building

The VD Roads sub-project aims to build new connecting roads from the National Stadium to existing roads adjacent to it. Roads to be constructed will cover a total distance of about 11.5 km including a service road reserved for the BRT Bus and two roundabouts.

Only those roads shown in green form part of the scope of work being managed by ASGC. The area, as can be seen from the figure below, is undergoing extensive urban development.

Figure 2-3: The VD Project Area



The project components that will be built are the following:

TABLE 2-1: VD Road Project Components to be built

Road Axes	Distance (km)
Axis 4 (Axis 70)	0+650
Axis 6 (Street 5B6)	1+275
Axis 7	0+106
Axis 8	0+099
Axis 10 (Street 21)	2+494
Route 11 (Street 21 extended)	0+225
Axe 12 A	0+240
Route 12 B (street 22)	0+240
Axis 14	0+742
Axis 15	0+255
Axis 16	0+608
Axis 18 (Street 3B6)	0+283
Axis 19 (Street 2B6)	0+414
Route 20 (street 4B6)	0+442
Axis 21 (street 8D2)	0+382
Axis 22 (street 7D2)	0+272
Axis 23 (street 3D2)	0+314
Axis 26	0+150
Axis 27	0+400
Axis 28	0+356
Axis 29	0+229
Axis 30	0+075
BRT Road (Street 22)	1+564
Total	11+ 578 km

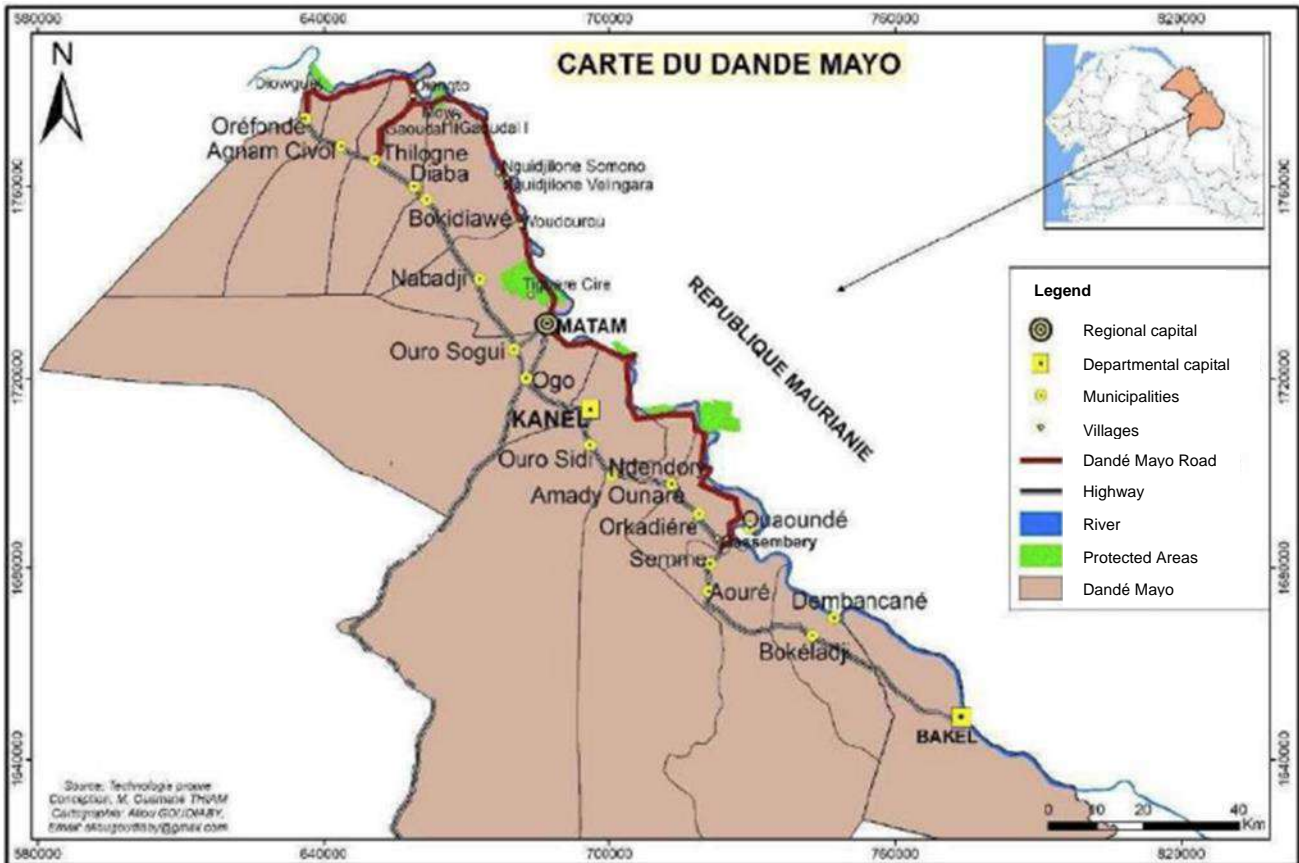
The Dandé Mayo Road

This is a 250km+ road in the middle valley of the Senegal river called Dandé Mayo. The road has two main sections: the north axis from Oréfondé to Matam (102km) and the south axis from Matam to Gassambéri (89km). In addition to these two main road sections all road networks in the municipalities of Matam and Waoundé and road sections that are sections of the RN2 (from Oréfondé to Dembancani) to the Dandé Mayo Road will be identified and constructed.

The agricultural and mining production areas around Matam lack infrastructure to improve their economic development. Access to these areas as well as the transportation and processing of products constitute a real handicap to development. The main objective of this road project is to open up these agricultural and mining areas in the middle valley of the Senegal river to national and sub-regional markets there by increasing production, marketing and creating agricultural and mining value chains.

Another of the aims of the Dandé Mayo Road construction project is to make the north-eastern areas of the country accessible during the rainy season. Above all, it is a socioeconomic development project for a landlocked region with strong agricultural and mining potential. Making this area more accessible is in line with the objectives of the PSD which aims to improve rural accessibility.

Figure 2-4: The Dandé Mayo Road Project



This project will also include the following:

- Hydro-agricultural works

- Creation of storage areas for rice production
- Building/ upgrading of health and educational structures
- Setting up of training centres in agricultural and mining techniques
- Setting up of processing units for agricultural products
- Setting up of market gardening perimeters
- Raising awareness on road safety for carriers
- Raising public awareness on sustainable development
- Setting up of multifunctional platforms for women and young people.

2.1 Scope of Works for Project Strada

Project Strada involves the engineering works for a portion of the overall PSD. The work involves road construction, reconstruction and rehabilitation of road sections of the road network in primarily rural areas and regional towns. It corresponds with national policy directives focusing on improving infrastructure and connectivity as an enabler of economic development in Senegal.

The types of projects within the construction category include:

- Upgrading of Unsurfaced Natural Trails to Gravel Roads
- Upgrading of Unsurfaced Natural Trails to Double Layer Roads
- Upgrading of Unsurfaced Natural Trails to Bituminous Concrete
- Upgrading of Unsurfaced Natural Trails to PCC Pavers
- Upgrading Unsurfaced Roads to Gravel Roads
- Upgrading Gravel Roads to Bituminous Concrete
- Upgrading of Degraded Roads to Bituminous Concrete and PCC Pavers.

The types of projects within the reconstruction category include:

- Upgrading Surfaced Trails to HD Asphalt Paving
- Upgrading Gravel Roads to HD Asphalt Paving
- Renewing Gravel Roads
- Upgrading Surfaced Tracks to Double Layered Roads
- Upgrading Degraded Double layered Roads to Bituminous Concrete.

The types of projects within the rehabilitation category include:

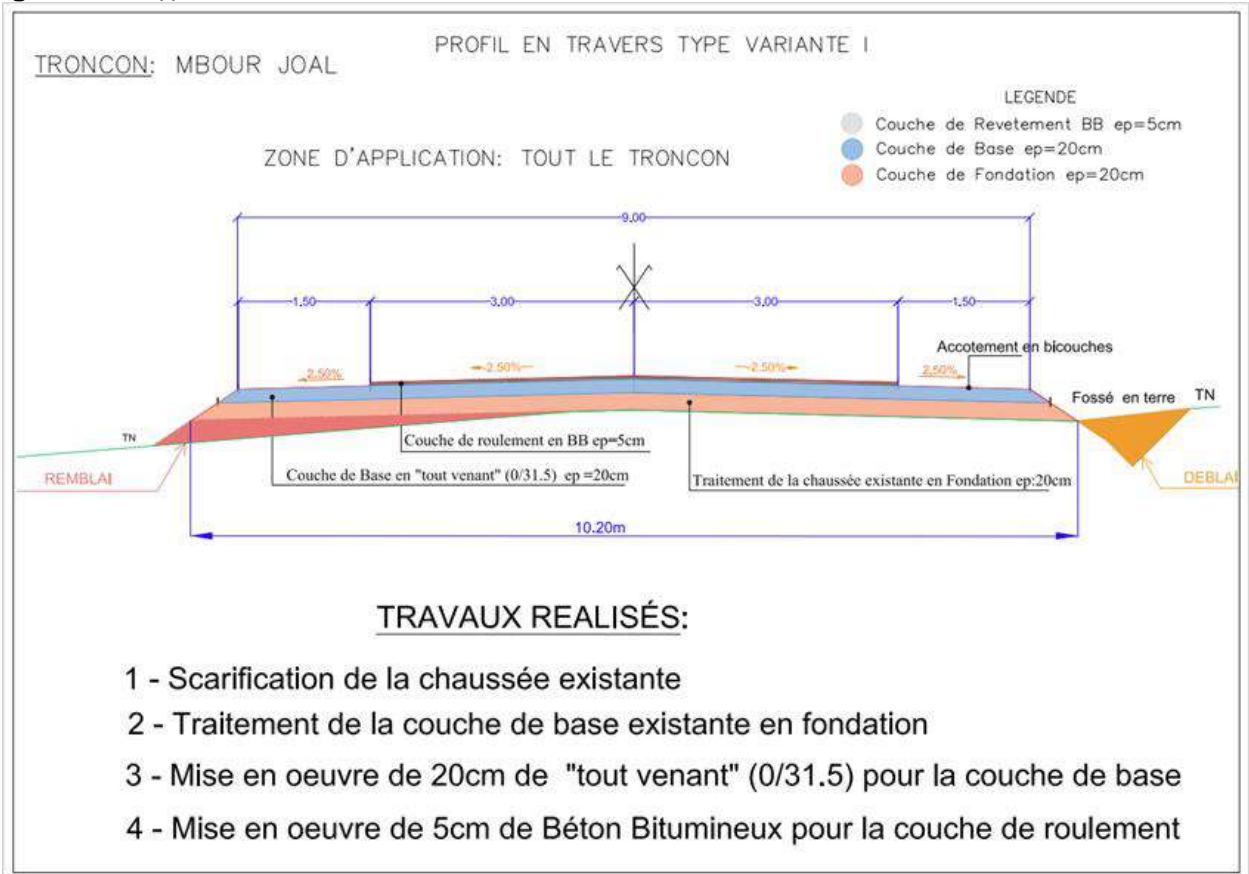
- Upgrading Surfaced Tracks to Improved Double Layer Roads
- Upgrading Gravel Roads to Improved Double Layer Roads
- Upgrading Gravel roads to Double Layer Roads.

2.2 Road Design

AGEROUTE has developed 3 typical designs for the types of works to be carried out for the PSD roads. These will be developed further by the construction contractors.

The designs developed by AGEROUTE are illustrated in Figures 2-3 to 2-5 below.

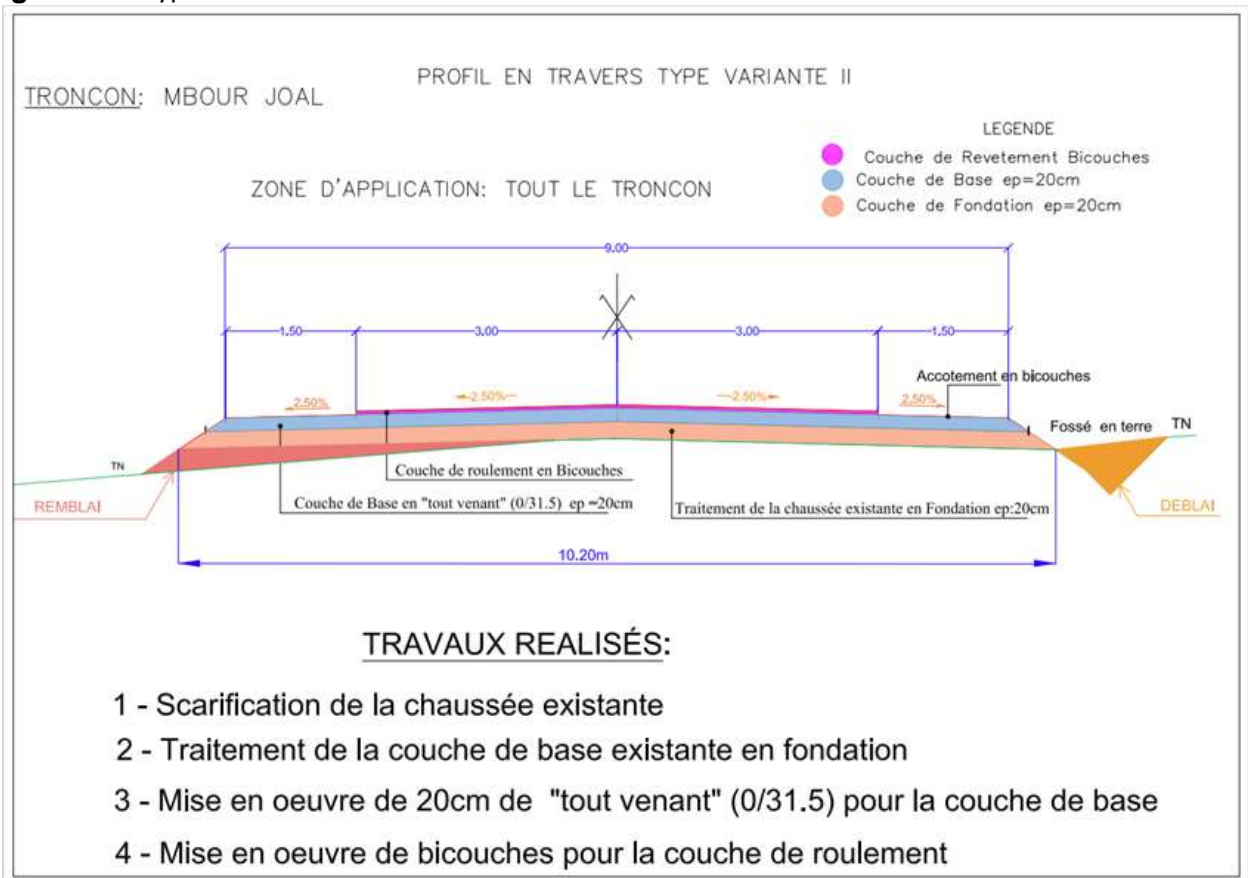
Figure 2-5: Type 1 Road Section



Legend

- 1 - Scarification of the existing road surface
- 2 - Treatment of the existing base/foundation layer
- 3 - Addition of 20cm of an all-purpose material
- 4 - Placement of a 5cm layer of bituminous concrete

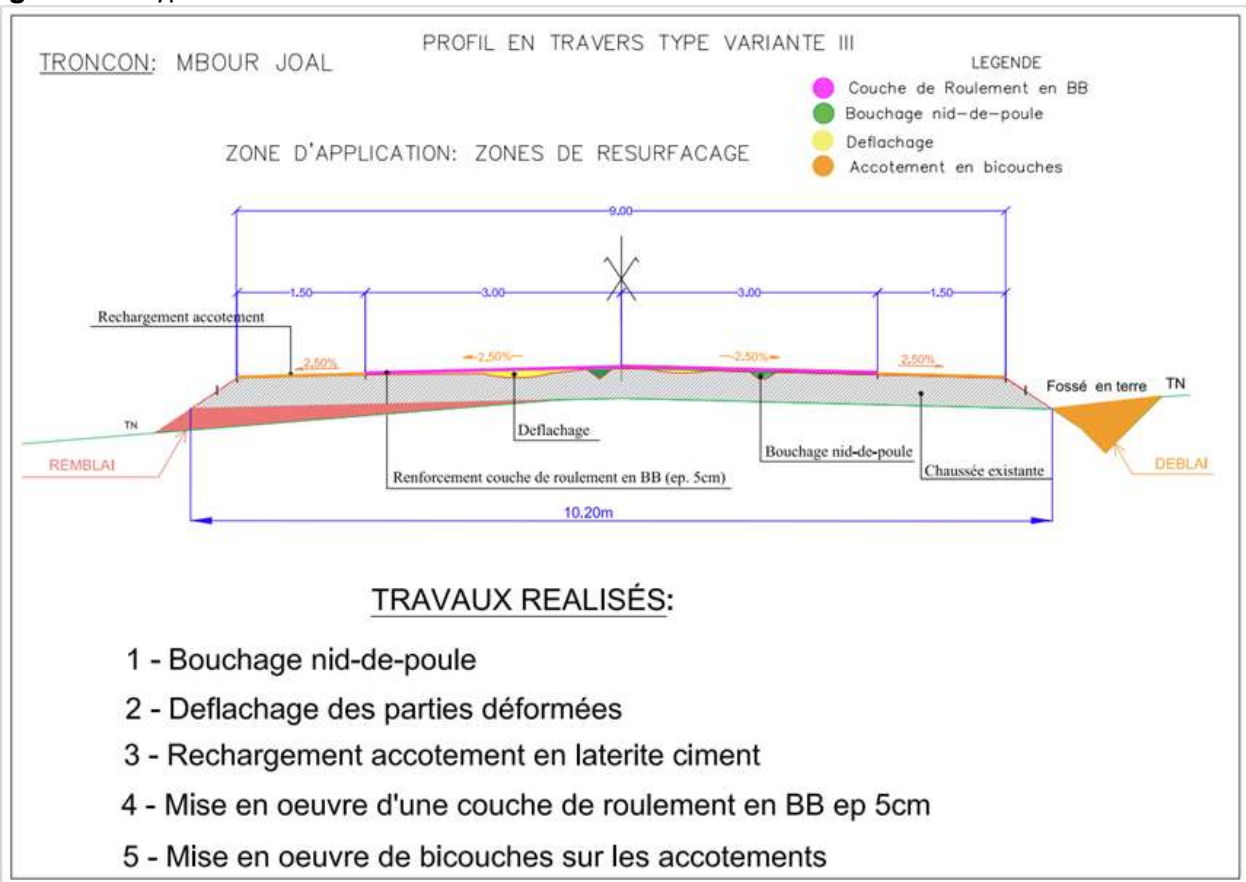
Figure 2-6: Type 2 Road Section



Legend

- 1- Scarification of the existing road surface
- 2- Treatment of the existing base/foundation layer
- 3- Addition of 20cm of an all-purpose material
- 4- Placement of a double surface layer for the road surface

Figure 2-7: Type 3 Road Section



Legend

- 1-Pothole filling/plugging
- 2 Application of a filler to deformed areas
- 3-Repair of roadsides with laterite cement
- 4-Additon of a road surface of 5cm of bituminous cement
- 5-Doubling of road protection at the sides of the road

Each project component’s detailed design will be specified within a Technical Prescription Manual, known as the “Cahier des Prescriptions Techniques” (CPT), a standard document used by AGEROUTE to set out a detailed technical specification for the construction of roads. As of April 2023, 20 had been agreed. Below is a brief outline of the CPT document.

2.2.1 Technical Prescription Manual (CPT) Summary

The purpose of the Technical Prescription Manual (CPT) is to document, for entering into the execution of the works of the National Development Plan (PSD) and their implementation, the reference texts and the regulations, the quality and the presentation equipment and materials.

It lays down the specific technical provisions for the works within the PSD.

The CPT constitutes, both by its own prescriptions and by those of the documents to which it refers, all the technical conditions applicable to:

- all products, materials and supplies used for the works;

- the implementation and execution of the works.

The CPT and the plans file form an indivisible whole to which reference is made whenever necessary. These documents complement each other in such a way that any work indicated on the plans without being indicated on one of the other documents, or vice versa, must be carried out by the contractor without any compensation for this fact. The same applies to all ancillary work not indicated to each other, but generally accepted as necessary for the normal completion of the execution of a business of perfect quality. By bidding, the contractor implicitly recognizes the responsibility for the execution of his company and the proper functioning of his installations according to the plans.

The document consists of five (5) chapters, namely:

Chapter 1: General indications, which explains the field of application of the CPT, the texts and standards to which it refers, as well as the description of the works within the PSD.

Chapter 2: Quality of materials, describes the characteristics of the materials to be used and the requirements and standards with which they must comply. This chapter also describes the studies and checks that will be carried out to look at the quality of the materials to be used.

Chapter 3: Method of carrying out the work, describes the different stages relating to the organization of the site.

Chapter 4: Execution control, this chapter describes the organization of work control, namely the materials, the nature of the tests to be carried out, the results required as well as the number of tests to be carried out throughout the life of the project.

Chapter 5: Refusal of acceptance-penalty, describes the conditions under which a refusal of acceptance will be notified to the subcontractor if the required prescriptions are not respected by the subcontractor.

2.3 Status of Contracting

AGERROUTE has begun the process of selecting contractors for the execution of the construction works for the PSD project components to be managed by ASGC. Table 2-1 below presents the currently available data on the selection of contractors.

TABLE 2-2: PSD Contractors

REF	REGION	CODE	PRIORITY / UKEF	DESCRIPTION		Subcontractor company
				SECTION / COMMUNITIES	LENGTH (KM)	
1	KEDOUGOU	N13B2	u	Bandafassi - Dindéfelo	23.987	SOSETER
2	TAMBACOUNDA	PNC	u	Goudiry - Dougue - Dianke Makha Sadatou	112.12	AREZKI
3	SEDHIOU	PNC	u	Boudier (Sedhiou Bambali - Djiredji - Djibabouya - Marsassoum)	73.788	EIFFAGE
4	SEDHIOU	PNC	u	Cf RN4 Sare Alkaly Bogal - Ndiamekouta	20.595	AREZKI
5	SEDHIOU	D11100/D1100B1		Karantaba - Sare Tening (Boucle Pakao2)	44.734	SAFIEDINE
6	SEDHIOU	PNC		Sandiniery - Djidinki (Boucle Pakao1)	15.848	AREZKI
7	KOLDA	PNC	u	Kolda - Salikenie	26.438	I-CONS
8	KOLDA	PNC	u	Kolda - Pata	64.287	SOSETER
9	KOLDA	PNC		Awataba - Diatafa - Kossanke - Diankankounda	17.826	
10	KOLDA	PNC		Mampatim - Pidiro - Sare Dembeyel - Sare Kanta	12.979	
11	KOLDA	D7302		Kabendou - Wassadou - Frontiere Guinee	27.241	I-CONS
12	ZIGUINCHOR	D208	u	Boucle Du Fogny 1 (Bignona - Sindian - Djibydone)	34.298	AREZKI
13	ZIGUINCHOR	PNC	u	Boucle Du Fogny 2 - (Cf RN5) Barandir - Biti Biti	13.74	AREZKI
14	ZIGUINCHOR	PNC	u	Kataba (Cfn5) - Medina Cherif	8.171	AREZKI
15	ZIGUINCHOR	PNC		Ebinako - Katipeu	12.694	AREZKI
16	KAOLACK	PNC	u	Lamaramé - Ndiendieng	9.377	EIFFAGE

DESCRIPTION						Subcontractor company
REF	REGION	CODE	PRIORITY / UKEF	SECTION / COMMUNITIES	LENGTH (KM)	
17	KAOLACK	PNC	u	Firgui - Dabal - Kaymor - Thiesse	31.048	EIFFAGE
18	KAOLACK	PNC	u	Kaymor - Sokonrong - Darou Khoudoss Nganda	20.879	KELIMANE
19	KAOLACK	PNC		Sibassor - Ndiebel	18.481	
20	KAOLACK	PNC		Guinguineo - Ngoloum	9.014	
21	KAOLACK	PNC		Gandiaye - Diaoule	19.811	
22	KAOLACK	PNC		Keur Waly Ndiaye - Ndiendieng	13.65	EIFFAGE
23	KAFFRINE	R41		Kaffrine - Ndioum Guente	52.22	
24	KAFFRINE	D4104		Birkelane - Mbos - Mbar	80.733	
25	KAFFRINE	R40		Pathé Thiangaye - Médinatoul Salam - Nganda	33.799	
26	KAFFRINE	PNC		Ribo - Darou Koum Koum	14.282	
27	KAFFRINE	PNC		Delbi - Pafa - Guent Pathe	45.503	
28	FATICK	R031	u	Keur Martin - Dihine - Wakhal Diam	25.615	JLS
29	FATICK	D3202	u	Toubacouta - Missira	12.609	JLS
30	FATICK	D5101	u	Gossas - Guelou - Nguinguineo	31.471	COLAS
31	FATICK	R50		Toubacouta - Keur Saloum Diane	22.627	JLS
32	FATICK	PNC		Djilas - Ngueniene	12.405	
33	LOUGA	PNC	u	Bandeigne - Tieppe	15.438	SOTRACOM

DESCRIPTION						Subcontractor company
REF	REGION	CODE	PRIORITY / UKEF	SECTION / COMMUNITIES	LENGTH (KM)	
34	LOUGA	PNC	u	Cf/R3 - Tiamene Pass	2.433	SOTRACOM
35	LOUGA	PNC	u	Kab Gueye - Tawa Peulh	13.883	SOTRACOM
36	LOUGA	PNC		Ndande - Ngagne Diouf Yc Bretelle de Darou Ndiaye	16.307	
37	LOUGA	PNC		Ndiam Fall - Ngoufatt 2	3.358	
38	LOUGA	PNC		Mbeuleukhe - Tessekre - Diagle	48.471	
39	LOUGA	PNC		Keur Madiale Fall -Ndeye Satoure - Warene	28.988	
40	LOUGA	PNC		Route de Niomre	7.543	
41	DAKAR	PNC		Bambilor - Lac Rose	6.993	
42	DAKAR	PNC		Deni Birame Ndiao Sud - Benoba	4.443	
43	DAKAR	PNC		Keur Ndiaye Lo - Sébi Ponty	8.64	
44	DAKAR	PNC	u	Keur Ndiaye Lo - Cite Almadies li	6.952	HENAN CHINE
45	DAKAR	PNC	u	Keur Daouda Sarr - Fass Kounoune Ngalap - Base Militaire - Almadies	4.573	EIFPAGE
46	DAKAR	PNC		Noflaye - Niakhirate Peul - Sebikotane	8.093	EBG - TOUTAGGLO
47	MATAM	PNC		Oudalaye - Siwi Yabe (Salalatou)	55.844	
48	MATAM	PNC		Louguere Thioli - Tioukoungal - Badagor	34.085	
49	MATAM	PNC	u	Ranerou - Oudalaye	39.412	KELIMANE

DESCRIPTION						Subcontractor company
REF	REGION	CODE	PRIORITY / UKEF	SECTION / COMMUNITIES	LENGTH (KM)	
50	MATAM	PNC	u	Nabadji - Sedo Sebe - Taiba Thianene	10.022	HENAN CHINE
51	THIES	PNC	u	Pekesse - Diemoul	16.272	KELIMANE
52	THIES	R130	u	Mekhe - Pekesse - Thilmakha	41.992	SOTRACOM
53	THIES	PNC		Boukhou - Packy	0.965	
54	SAINT LOUIS	PNC	u	Degou Niaye - Mouit	8.047	COLAS
55	THIES	PNC		Diass - Mbayar	3.075	SINOHYDRO
56	DIOURBEL	PNC	u	Diourbel - Gawane	39.838	
57	THIES	PNC		Kandam - Sebikhotane	10.092	
58	DIOURBEL	R021		Keur Nganda - Baba Garage -	13.076	
59	THIES	D13102	u	Liaison Ngaparou	7.329	
60	SAINT LOUIS	PNC		Mbatias Dieye - Leona	20.347	KELIMANE
61	SAINT LOUIS	PNC		Ndiassene Ross Bethio	29.926	
62	DIOURBEL	PNC		Ndindy - Autoroute Ila Touba	14.055	SINOHYDRO
63	SAINT LOUIS	PNC	u	Ngalel - Maka Toube - Gandon Cf/RN2	9.378	CDE
64	SAINT LOUIS	PNC		Podor - Guede - Ndioum	40.285	
65	THIES	D13204	u	Pout - Keur Matar Gueye Ndam Cf N8	12.488	SINOHYDRO
66	SAINT LOUIS	PNC	u	Raoul Peul - Leona	26.202	KELIMANE

DESCRIPTION						Subcontractor company
REF	REGION	CODE	PRIORITY / UKEF	SECTION / COMMUNITIES	LENGTH (KM)	
67	DIOURBEL	D02306		Sadio - Guerle - Lr Louga	12.493	SINOHYDRO
68	DIOURBEL	D02306	u	Taif - Sadio	11.438	SINOHYDRO
69	THIES	PNC		Voirie de Saly	3.805	HENAN CHINE
70	KEDOUGOU	PNC		Kedougou - Fongolembi	28.521	EIFFAGE
71	ZIGUINCHOR	PNC		Ebinako - Djibidione	29.698	
72	KAOLACK	D5301		Nioro - Taiba Niassene - Keur Madiabel - Drame Escale - Sokone	48.946	EIFFAGE
73	THIES	D13200	u	Ndiagianao - Tassette - Guekhokh	38.933	JLS
74	THIES	D13100	u	Mbour - Joal	34.158	JLS
75	DAKAR	PNC	u	Kounoune - Dara Tioub - Jaxaay -Keur Massar	8.956	EIFFAGE
76	THIES	PNC		Dias N1 - Samkedji - Raffo	8.095	SINOHYDRO
77	DIOURBEL	PNC	u	Darou Khafor - Missira	31.802	SINOHYDRO
78	DIOURBEL	VU	u	Sortie Autoroute Ila Touba - Contournement Mbacké	6.918	SINOHYDRO
79	DIOURBEL	VU		Contournement (Darou Salam Mbacké - Touba)	5.04	
80	MATAM	PNC	u	RN2 - Boynadji	2.746	
81	MATAM	PNC		Sinthiou Mbal (N2) - Taiba et Pete Niebe Moba Tafsir Balla	9.531	
82	MATAM	PNC		Velingara Ferlo - Thiounouh	43.013	

DESCRIPTION						Subcontractor company
REF	REGION	CODE	PRIORITY / UKEF	SECTION / COMMUNITIES	LENGTH (KM)	
83	MATAM	PNC		Velingara - Mbem Mbem	37.844	
84	LOUGA	PNC		Darou Marnane - Darou Mousty Route de Bouchera	2.663	
85	KAFFRINE	R50		Kaffrine - Sinthiou Wanar - Nioro	51.779	
86	THIES	D13100		Ndangalma - Fissel	22.032	HENAN CHINE
87	Matam	R90	u	Route du Dandé Mayo SUD	130	CSE
88	Louga	RN2		Louga-Saint Louis	68	COLAS
89	Matam	PNC		Boke Dialloubé Karawendou - Gayekadar - Ndiayene Djolof - Loumbellana	110	
90	Kaffrine			Malem Hodar - Delbi - Darou Miname	88	I-CONS - EIFFAGE

3 Institutional Framework

3.1 National Regulations

3.1.1 Laws and Regulations Applicable to the Project

The regulatory texts governing environmental matters at the national level and applicable to the project are presented in the following table:

TABLE 3-1: Senegalese Regulations Applicable to the Project

Environment
<ul style="list-style-type: none"> • Law No. 2016-10 of 5 April 2016 revising the Constitution. • Law 2001-01 of 15 January 2001 on the Senegalese Environmental Code • Decree 2001-282 implementing the Environmental Code • Nomenclature of Classified Installations for the Protection of the Environment (ICPE) • Ministerial Order No. 9472 MJEHP-DEEC of 28 November 2001 containing the environmental impact assessment report. • Orders regulating environmental impact assessments: <ol style="list-style-type: none"> a. Order No. 009471 of 28 November 2001 containing the terms of reference for environmental impact studies. b. Order No. 009470 of 28 November 2001 on the conditions for issuing Approval for the exercise of activities relating to environmental impact studies. c. Order No. 009472 of 28 November 2001 containing the environmental impact study report. d. Order No. 009468 of 28 November 2001 regulating public participation in environmental impact assessment. e. Order No. 009469 of 28 November 2001 on the organization and functioning of the Technical Committee.
Water
<ul style="list-style-type: none"> • Act No. 81-13 of 4 March 1981 establishing the Legislative Code and its implementing decree No. 98-555 of 25 June 1998 • Law No. 2009-24 of 8 July 2009 on the Health Code • NS 05-061 of July 2001 wastewater: discharge standards
Biodiversity
<ul style="list-style-type: none"> • Law No. 2018-25 of 12 November 2018 on the Forest Code • Decree No. 2019-110 implementing the Forest Code • Decree of 2004 establishing marine protected areas
Cultural Heritage
<ul style="list-style-type: none"> • Law No. 75-110 authorizing the President of the Republic to ratify the Convention for the Protection of the Cultural and Natural Heritage; • Law No. 2005-14, authorizing the President of the Republic to ratify the Convention for the Safeguarding of the Intangible Cultural Heritage, signed in Paris on 17 October 2003;
Land
<ul style="list-style-type: none"> • Law No. 64 - 46 of 17 June 1964 relating to the national domain. • Decree No. 64-573 of 30 July 1964 setting the conditions for the application of Law No. 64-46 on the national currency.

- Decree No. 64-574 of 30 July 1964 implementing Article 3 of Law No. 64-46 of 17 June 1964, relating to the national domain authorizing, on a transitional basis, registration in the name of occupants who have carried out a permanent development.
- Decree No. 91-838 of 22 August 1991 amending Decree No. 64-573 of 30 July 1964 setting the conditions for the application of Law 64-46 of 17 June 1964 on the national domain.
- Law No. 76-66 of 2 July 1976 on the State Domain
- Law No. 76-67 of 2 July 1976 on expropriation in the public interest and other land operations of public utility
- Law No. 2011-07, Law on the Regime of Land Ownership
- Law No. 2013-10 of 28 December 2013 on the General Code of Local Authorities
- Decree No. 2022-1088 of 5 May 2022 on the location visa
- Law No. 2016-32 of 8 November 2016 on the Mining Code
- Law No. 2012-31 of 31 December 2012 on the General Tax Code

Land Acquisition

- Law 76-67 of 2 July 1976 on expropriation in the public interest and other land operations of public utility
- Law No. 85-02 of 3 January 1985 replacing the first paragraph of Article 31 of Law No. 76-67 of 2 July 1976
- Law n° 2005-20 of 05 August 2005 repealing and replacing article 4 of law n° 76-67 of 2 July 1976
- Law No. 2011-07, Law on the Land Property Regime

Labour and Social Security

- Act No. 97-17 of 1 December 1997 establishing the Labour Code
- Law No. 73-37 of 31 July 1973 on Social Security
- Law No. 75 - 50 of 3 July 1975 on social welfare institutions
- Decree No. 75-455 of 24 April 1975 making it compulsory for all employers and all workers to join a pension scheme, amended in Articles 11 and 21 by Decree 76-17 of 9 January 1976
- Decree No. 70-180 of 20 February 1970 laying down the special conditions of employment of daily and seasonal workers.
- Decree No. 2006-1249 of 15 November 2006 setting minimum safety and health requirements for temporary or mobile construction sites.
- Decree No. 2006-1251 of 15 November 2006 on work equipment
- Decree No. 2006-1258 of 15 November 2006 laying down the missions and rules for the organization and operation of the services of the medicine of the work.
- Decree 2006-1261 on general health and safety measures in establishments of all kinds
- General Order No. 5254 I.G.T.L.S. / A.O. F of 19 July 1954 on child and pregnant women's labour
- National Interprofessional Collective Agreement - 2019
- Collective Agreement for Building and Public Works - 2006
- National Collective Agreement for the Private Security Sector - 2019

Construction and Urban Planning

- Law No. 2009-23 of 8 July 2009 on the legislative part of the Construction Code.
- Decree No. 2010-99 of 27 January 2010 on the regulatory part of the Construction Code.
- Law No. 2008-43 of 20 August 2008 on the Town Planning Code.
- Decree No. 2009 - 1450 on the regulatory part of the urban planning code;

Waste management

- Law 2001-01 of 15 January 2001 on the Senegalese Environmental Code.
- Law No. 2009-24 of 8 July 2009 on the Health Code.

- Law No. 83-71 of 5 July 1983 on hygiene.
- Decree 2000-73 of 31 January 2000 regulating the consumption of substances depleting the ozone layer and Inter-ministerial Order No. 08874 of 8 November 2001 regulating the consumption of these substances.
- Inter-ministerial Order No. 1555 of 15 March 2002 setting the conditions for the application of standard NS 05-061 on wastewater discharges.
- Norme NS 05-062 relating to atmospheric discharges.
- Inter-ministerial Order No. 09311 of 5 October 2007 on the management of waste oils.

The required national permits/approvals which are potentially applicable to the project are presented within the Project Permitting Strategy attached in Annexe L.

3.1.2 Categorization of Environmental and Social Assessments

As provided for in Chapter V, Article 48, of Act No. 2001-01 of 12 April 2001 on the Senegalese Environmental Code, any development project or activity likely to harm the environment, as well as policies, plans, programmes, regional and sectoral studies, must be subject to an environmental assessment.

The objective of this approach is, on the one hand, to assess the potential impacts, both positive and negative, that a project or programme could generate on both the natural and socio-economic environment of its area of establishment, and on the other hand to ensure that the impacts identified are effectively taken into account in the design of the said project or programme.

Any Environmental and Social Assessment will be carried out in accordance with the ToR (Terms of Reference) validated by the Directorate for Environment and Classified Establishments (DEEC). The latter is a structure of the Ministry of Environment and Sustainable Development responsible for defining the type of evaluation to be carried out but also for their validation. No discussions were held with the Ministry of the Environment as part of the SEA.

The validation of the TOR of the environmental and social assessment, following a visit to the host sites of a project or program by the DEEC, will make it possible to define the type of environmental and social assessment to be carried out.

According to Article L9 of the Environmental Code, all projects presenting a danger to health, safety, public health, agriculture, nature and the environment in general, or disadvantages to the convenience of the neighbourhood, are first- or second-class installations and are therefore subject to the provisions of the Classified Installations Act.

The environmental and social assessment could be:

- An Environmental and Social Impact Assessment (ESIA) also known as a thorough Environmental Impact Assessment (EIA) in the case of projects likely to have significant environmental impacts. An assessment by the DEEC is required.
- An Initial Environmental Analysis (IEA) for projects with limited environmental impacts that can be mitigated by the application of measures or changes in their design. An assessment by the DEEC is required.
- A Strategic Environmental Assessment (SEA) in the case of site-specific programs. The SEA is a planning document that provides a framework for identifying, assessing and mitigating the negative environmental and socio-economic impacts that may be caused by planned activities. In the case of

the SEA, the DEEC proposes some guidelines for incorporating environmental and social dimensions in the planning and implementation of the various components of the programme.

Note: an SEA has already been produced for the PSD and this has been reviewed as part of development of this SEA.

These Environmental and Social Assessments will include:

- A complete description of the project: justification of the project and site, objectives and expected results, determination of the geographical boundaries of the project area, methods, facilities, products and other means used.
- An analysis of the initial state of the site and its environment: collection of basic data on climate, water, soil, geology, hydrogeology, flora, fauna, air, noise, physico-chemical, biological, socio-economic and cultural conditions.
- An outline of the legal framework of the study (brief reminder of the relevant legislation).
- A description and analysis of the project variants (location, technological or operational technical availability).
- An assessment of the impacts (positive or negative direct, indirect, cumulative in the short, medium or long term) that the project is likely to generate during its implementation (preparation, construction, operation phases).
- An analysis of the risks of technological accidents.
- An identification and description of preventive measures to control, eliminate, mitigate and compensate for negative impacts.
- An Environmental and Social Management Plan (ESMP).

3.1.3 Validation Process of Environmental and Social Assessments

The implementation of the project is conditioned by the validation of the Environmental and Social Assessment, submitted to the DEEC in order to obtain the **Environmental Clearance** issued by the Ministry of Environment and Sustainable Development.

The DEEC is, thus, the body responsible for monitoring the process of carrying out Environmental and Social Assessments until the issuance of the discharge by its supervising ministry.

The different stages of the environmental assessment are presented in the following table:

TABLE 3-2: Steps in the Environmental and Social Assessment Validation Process

#	Steps	Time
1	Transmission of the Project Notice and Terms of Reference (ToR) to the DEEC	D0
2	Site visits for validation of environmental and social assessment ToR	D0 + 15 days
3	Recruitment by the proponent of a consultant approved by the DEEC to produce the environmental and social assessment report, in accordance with the validated ToR	At the discretion of the customer (preferably J0)
4	Submission of the draft environmental and social assessment report for validation by the Technical Committee	D0 + 30 days

#	Steps	Time
5	Integration of Technical Committee comments and tabling of corrected version of draft environmental and social assessment report	D0 + 45 days
6	Organization and holding of a public hearing in the case of an ESIA for validation of the report by the population concerned	D0 + 75 days
7	Integration of public hearing comments (For ESIAs)	D0 + 90 days
8	Final Environmental and Social Assessment Report Table	D0 + 100 days
9	Obtaining the Environmental Clearance issued by the Ministry of Environment and Sustainable Development. The Environmental Clearance defines the modalities of implementation of the ESMP.	At the discretion of the DEEC
10	Monitoring the effective implementation of the GGP by the DEEC/DREEC	At the discretion of the DEEC

3.1.4 Environmental and Social Management Plan – ESMP-National Requirements

The level of precision and the elements to be taken into account in the Environmental and Social Management Plan depends on the environmental safeguard document required by the DEEC.

- For ESIA: The Environmental and Social Management Plan (ESMP) must be developed in such a way as to propose measures to mitigate negative impacts and enhance identified positive impacts, taking into account the concerns of the various stakeholders but also national legal and regulatory requirements.
- For the IEA: The Environmental and Social Management Plan (ESMP) must be developed in such a way as to propose measures to mitigate negative impacts and enhance identified positive impacts, taking into account the concerns of the various stakeholders but also national legal and regulatory requirements.
- For SEA: The Environmental and Social Management Framework Plan (ESMF) presents the major axes of institutional mechanisms, for environmental and social management, to be taken into account in the implementation of the program.

3.1.5 E&S Practices for Multi-Site Projects: The Case of Project Strada

The type of environmental assessment to be carried out as part of multi-site programmes such as the construction and rehabilitation project for the Strada-PSD roads is not specified by Senegalese regulations. The management of environmental and social aspects should, therefore, require the realization of several environmental and social assessments (IEA, ESIA, ESMP) for each project component, in accordance with Law No. 2001-01 of 15 January 2001 on the Environmental Code. However, the realization of an SEA (Strategic Environmental Assessment), upstream would be appropriate since it would allow an identification and an assessment of the impacts that could result from the Project, in a global way.

The conduct of an SEA is not governed by a specific legislative or regulatory text, it is carried out according to the recommendations of the DEEC, as the competent authority for environmental and social assessments at the national level, after exploitation of the Project Notice and the ToR filed by the project company. The realization of the EIA is however part of the Senegalese regulatory requirements.

The environmental and social assessment will be consistent with the International Finance Corporation's Performance Standards to "minimize the negative environmental and social impacts of the development projects it supports and maximize their benefits."

In the present case, the Strada-PSD project, being composed of several routes, located in different regions of Senegal, can be considered a programme because of its size.

Thus, following the completion of the SEA, DEEC will decide on the type of environmental assessment to be conducted for each sub-project. Indeed, the project may require the completion of several other more specific environmental assessments such as the development of an ESIA, an IEA or an ESMP only, for each sub-project, based on the opinion of the DEEC, after assessing the scope of the impacts identified.

In view of the mainly medium to high impacts that the implementation of this project will have at the national level, the realization of a Strategic Environmental Assessment (SEA) will surely prove necessary, as well as the realization of an environmental and social assessment (ESIA; IEA) for each sub-project.

Environmental and social assessments and ESMPs that will be included in the social and environmental assessment reports cited above will be submitted to DEEC for consideration.

The DEEC could also request the development of a Stakeholder Engagement Plan (SEP) that will address the concerns of the various interested parties and will include, in particular, a complaint or grievance management mechanism.

3.1.6 Land Acquisition Legislation-National Requirements

In Senegal the land tenure system distinguishes two (02) types of land:

1. Land belonging to the national domain under Law No. 64-46 of 17 June 1964, which includes four categories of land:
 - Urban areas within the lands of the national domain and are located in municipal territories, and urban planning groups provided for by legislation applicable in the area. Their conditions of administration are fixed by decree.
 - Classified areas which consist of forest areas or protected areas that have been classified under the conditions laid down in the special regulations applicable to them. They are administered in accordance with these regulations.
 - The land areas which correspond in principle (at the date of publication of this law,) to land that is regularly exploited for rural housing, cultivation or livestock. The lands of the terroir zone are allocated to members of the rural communities who ensure their development and exploitation under the control of the State in accordance with the applicable laws and regulations.
 - Frontier Areas that correspond to other lands that are developed under the conditions set by development plans and management programs.

NB: land and pioneer areas are lands of the national domain other than those located in urban and classified areas.

The conditions for registration on a transitional basis, of land belonging to the national domain, in the name of occupants who have carried out a permanent development on it are specified by Decree No. 64-574 of 30 July 1964 with implementing Article 3 of Law No. 64-46 of 17 June 1964, relating to the national domain.

2. Land belonging to the domain of the State, enshrined in the provisions of Law No. 76-66 of 2 July 1976 on the Code of the domain of the State. The domain of the State is composed of:
 - The public domain of the State which is composed of movable or immovable property which, by reason of its nature or purpose, is not susceptible to private appropriation. The public domain is either natural or artificial.
 - The private domain of the State which consists of the rest of the property of the State not falling within the scope of the Public Domain of the State.

In principle, the movement of persons or infrastructure occupying the public domain does not give rise to compensation (Art. 13). Another principle to be considered is that the granting of titles to individuals on the public domain is not permanent insofar as occupation authorizations by ordinary lease, emphyteutic lease, concession of the right of surface, road permit, operating authorizations, are granted on a precarious and revocable basis and give rise to the payment of royalties. However, such authorizations may be granted free of charge where they constitute a public utility or are of economic or social interest.

3.1.7 Senegalese Regulations Applicable to Land Acquisition

3.1.7.1 Land acquisition

The acquisition of land in the context of road infrastructure construction projects such as the Strada-PSD project is authorized by the Constitution, which determines, inter alia, the fundamental principles of the system of land ownership and real rights matters that are not legislative matters of a regulatory nature. In the event that the realization of the project would require an expropriation for reasons of public utility, this is to be done in accordance with Law No. 76-67 of 2 July 1976 on expropriation for public utility.

Article 2 of this law provides for the acquisition of land, immovable property and rights in immovable property of any kind necessary for the carrying out of projects relating, inter alia, to:

- All public works
- The application of the master plans, urban planning and subdivision, as well as the realization of the constructions and installations provided for in those plans
- The implementation of development plans and development programmes (operations of economic or social interest, establishment of industrial, commercial or agricultural installations, operations intended to ensure progressively, and according to overall plans, the development, equipment, construction and development of areas designated for housing, commerce, industry, cultivation, livestock or afforestation by approved projects).

Expropriation in the public interest is possible regardless of the status or protection of the property. The withdrawal of land from the national domain for reasons of public utility or general interest is comparable to expropriation and gives rise to payment to the evicted occupant a fair and prior compensation.

The provisions of Law No. 2013-10 of 28 December 2013 on the General Code of Local Authorities and Law No. 2011-07 on the Land Property Regime will also be taken into account as part of this process.

Expropriation for Public Utility

The process of expropriation for public interest includes several procedures that vary according to the nature of the land concerned. The process includes:

- The expropriation file preparatory phase which includes proposals from the project manager, a description of the project, the plan of the project location, the investment program and the financing plan.
- An administrative phase which involves public utility investigations, the publication of a declaration of public utility and transferability, and negotiation for an amicable agreement.
- A judicial phase which involves an expropriation judge, in the event of disagreements, between the State and the person subject to the expropriation proceedings.
- The indemnification agreement and the conclusion phase.

Thus, the process of recovering land belonging to the national domain will be composed of the following steps:

In urban areas:

- A declaratory act of public utility taken in accordance with the rules applicable to expropriation to designate the area necessary for the realization of the project.
- An estimation of the compensation to be paid by a commission taking into account exclusively the constructions, developments, plantations and crops existing in the affected area and carried out by the beneficiaries.
- Minutes of the operations drawn up by the Commission showing the necessary information and, where appropriate, highlighting any measures necessary for the resettlement of the displaced population.
- A decree issued in the light of the minutes, decommissioning the affected area, orders the payment of compensation and if necessary, establishes a resettlement programme for the area.

For land belonging to the domain of the State:

- A consultation of the Land registry and Urban Planning Services.
- The presentation of the file before the Commission for the Supervision of State Operations (CCOD) for an opinion on the timeliness, regularity and financial conditions of the acquisitions of the real estate buildings rights.
- The drafting of a deed exchanging the land requested against the land that has been expropriated.
- An acquisition of the property by the State or the legal person concerned after the compensation of the owner or holder of the real right in immovable property in cash.

For land in the domain of individuals

The commission set up to be competent in matters of expropriation will estimate the compensation to be paid to the occupants by referring to Decree No. 91-838 of 22 August 1991 amending Decree No. 64-573 of 30 July 1964 laying down the conditions for the application of Law No. 64-46 of 17 June 1964 relating to the national domain.

For land in the national domain constituting terroir zones:

The municipal council is the body empowered to decommission the land concerned when the general interest of the community is established. The assignee receives an equivalent plot of land as compensation. The procedure is applicable for compensation in kind.

3.1.7.2 Compensation measures

A. Compensation for loss of land in the event of an expropriation for Public Utility

For the national domain:

The expropriation procedure for reasons of public utility will require the withdrawal of the land subject to expropriation under the conditions set by Decree No. 64-573 of 30 July 1964 implementing Law 64-46 on the national domain, which establishes the terms of compensation for the occupants of the national domain concerned by the expropriation. The occupant of the reclaimed land, given the general interest inherent in the acquisition of this land, receives a plot of land equivalent to that which will be withdrawn from him/her.

NB: Regarding the lands of the national domain located in the area of terroirs, the competent bodies at the local level for the allocation and decommissioning of the land, are the municipal councils.

For the domain of the State:

Regarding the process of acquiring land belonging to the domain of the State, a difference is noted between the private domain and the public domain.

The procedure relating to the private domain differs according to the status of the land that can be affected or unaffected. The private domain can be the subject of several leases that allow beneficiaries to enjoy the land for a renewable period of up to 50 years.

Thus, Article 45 provides that "The partial or total repossession, on grounds of public utility of land which is the subject of an ordinary lease before its expiration shall take place in the forms determined in the field of expropriation against compensation, established based exclusively on the value of the existing buildings and developments carried out in accordance with the provisions of the contract concluded with the State and the Code of Urbanism."

As for the public domain of the State, the State has greater latitude in the procedure for acquiring land for reasons of public utility, since the withdrawal of land already belonging to the State does not entail any compensation as the occupation authorizations granted there are only precarious and revocable (Article 13 of Law 76-66 relating to the domain of the State).

Procedure Relating to Compensation in Kind

In the event that the compensation will be in kind (i.e., land for land), the procedure will include the following steps:

- A consultation of the Land registry and Urban Planning Services.
- The presentation of the file before the CCOD.

- The drafting of a deed exchanging the land requested against the one that has been expropriated, after a favourable opinion of the CCOD in at least six (06) copies, signed by the applicant and the administrative authority (Governor or Prefect) assisted by the Receiver of Domains territorially competent. The act must then be approved by the Minister in charge of Domains to be authentic.
- Taking possession of the immovable subject to payment or deposit of the provisional indemnity.

B. Compensation for loss of property

In urban areas, the provisions of Article 38 of Decree 64-673 may be applied taking into account the land scale set by Decree No. 2010-439 of 6 April 2010 repealing and replacing Decree No. 88-74 of 18 January 1988 which sets the price scale for rents for bare land and built-up land, This scale will also serve as a reference for calculating the compensation to the original occupants, the expropriation of their land in the public interest.

C. Compensation for loss of land for agricultural and pastoral use

This scale is often associated with another scale, enshrined in Decree No. 96-572 of 9 July 1996 fixing taxes and fees for forestry, amended by Decree No. 2001-217 of 13 March 2001, which deals with taxes and fees applicable to the loss of vegetation and other forest services. The Regional Water and Forest Inspectorate (IREF) will be involved in the process of defining taxes and fees.

As for land for pastoral use, the conditions of use of land initially used by pastoralists as livestock corridors or transhumance corridors, for the purpose of carrying out infrastructure projects, will be subject to the provisions of Decree No. 80-268 of 10 March 1980 on the organization of livestock runs and fixing the conditions for the use of pastures.

D. Compensation for loss of income

Compensation for loss of income in the context of expropriation in the public interest is not provided for in Senegalese legislation. However, for cases of crop losses following the expropriation of land for public utility, for which the Departmental Commission for Census and Evaluation of Expenses (CDREI) set up for the purposes of the project, will be responsible for assessing agricultural losses based on the speculative prices of the various agricultural products at the level of local markets and on national scales.

However, with regard to other income-generating activities, the project should be inspired by the rules of good practice applicable internationally, such as the International Finance Corporation's (IFC) Performance Standard No. 5 (PS-5).

3.1.7.3 Grievance Resolution

National laws provide for the right of appeal, particularly on issues related to land acquisition, compensation for losses and the process of consultation with communities through *commodo/incommodo* surveys (to assess views on the benefits and disbenefits of a project).

Public inquiries conducted as part of the impact assessment, and public hearings are all means for communities to present grievances to the competent authorities.

3.1.7.4 Involuntary Resettlement

Some concerns about the project are not addressed by Senegal's national legal framework and would require alignment with international good practice rules and IFC PS5, particularly for the development of Resettlement Action Plans (RAPs) or Livelihood Restoration Plans (LRPs). Thus, the implementation of IFC PS 5 is expected to be necessary for this project.

3.1.8 Regulatory Framework Applicable to the Protection of Biodiversity in Senegal

The preservation of biodiversity in Senegal is enshrined in the Constitution, which states that "The exploitation and management of natural resources must be carried out transparently and in such a way as to generate economic growth, promote the well-being of the population in general and be environmentally sustainable" and that "every citizen has the duty to preserve the natural resources and the environment of the country and to work for sustainable development for the benefit of the country. present and future generations. ». This principle set out in the Constitution is supported by a legal arsenal including:

- The 1994 United Nations Convention to Combat Desertification ratified by Senegal in 1995.
- The African Convention for the Conservation of Nature and Natural Resources signed in Algiers on 15 September 1968 and ratified by Senegal in 1972.
- The Convention on Wetlands of International Importance especially as Waterfowl Habitat, signed on 2 February 1971 and ratified by Senegal in 1977.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) signed on 3 March 1973 and ratified by Senegal in 1977.
- The Convention on Biological Diversity signed in Rio on 5 June 1992 ratified by Senegal in 1994.
- The International Plant Protection Convention (IPPC) signed in Rome in November 1951 and entered into force on 3 April 1952 and ratified by Senegal in 1975.
- Law No. 2001-01 on the Environmental Code and its Decree No. 2001-282.
- Law No. 2018-15 of 12 November 2018 on the Forest Code Decree No. 2019-110 on implementation.
- Law No. 81.13 of 4 March 1981 on the Water Code and its Decree No. 98-555 on its implementation.
- Decree No. 2004-1408 of 4 November 2004 establishing Marine Protected Areas.

These texts define the means to be put into practice and the actions to be adopted in order to minimize, as much as possible, the impacts of human activities on all components of natural environments, more particularly the protected areas of the first group (National Parks; Classified Forests; Marine protected areas; Nature, Biosphere and Special Reserves; Reforestation perimeters) and the second (Sacred Forests; community nature reserves; Community Aboriginal Heritage Areas).

The methodology of environmental and social assessments, as defined by environmental regulations, is also part of the process of protecting biodiversity by identifying and assessing the impacts of projects on the environment with a view to their support during the implementation of the ESMP.

3.1.9 Measures for the Protection of the National Cultural Heritage

The safeguarding of cultural heritage is taken care of at the national level, on the basis of the UNESCO Conventions on natural and intangible cultural heritage respectively following their ratification by the State

of Senegal by Laws No. 75-110 of 20 December 1975 and 2005-14 of 3 August 2005. Under these conventions, this safeguarding is ensured from a practical point of view through the identification, protection, conservation, presentation and transmission to future generations of certain natural (monuments, ensembles or sites) and cultural components (traditions, living expressions transmitted to descendants, oral traditions, performing arts, social practices, rituals and festive events, knowledge and practices relating to nature and the universe, knowledge and skills necessary for traditional crafts) and their inscription on the World Heritage List, and this , at the cost of all available resources and thanks to international cooperation.

This approach has enabled Senegal to submit 08 sites to the tentative list, six (06) of which are cultural and two (02) mixed. The following may also be cited, inter alia:

- Five (05) cultural properties inscribed on the UNESCO World Heritage List (Megalithic Circles of Senegambia, Saloum Delta, Gorée Island, Saint-Louis Island, Bassari Country: Bassari, Peul and Bédik cultural landscapes)
- Two (02) rituals of Senegal on the Representative List of the Intangible Cultural Heritage (ICH) of Humanity (Kankurang (2008) and Xooy (2013))

3.2 Senegalese Regulations on Public Participation in Environmental Assessments

In Senegal, the involvement of the population, as a constituent element of Environmental and Social Assessments, is enshrined in Ministerial Order No. 9468 MJEHP-DEEC of 28 November 2001 regulating public participation in environmental impact assessments.

Article 1 of this text lays down the procedure for involving the public in projects requiring a study to be carried out in accordance with Article L48 of the Environment Code, which is structured around the following stages:

- Announcement of the initiative by posting to the town hall or the governance and/or communicated through the press (written or spoken).
- Deposit of documents at the town hall or local authority concerned.
- Holding of an information meeting.
- Collection of written and oral comments.
- Negotiations when necessary.
- Preparation of the report.

The process of participation of the populations of the project host sites also requires the involvement of the administrative and territorial authorities concerned.

Ministerial Order No. 9468 MJEHP-DEEC also lays down the rules for the organization and conduct of the public study as well as the role of the Technical Committee in this stage of validation of environmental and social assessment reports.

3.3 IFC Requirements

IFC’s Sustainability Framework articulates the Corporation’s strategic commitment to sustainable development and is an integral part of IFC’s approach to risk management. The Sustainability Framework comprises IFC’s Policy and **Performance Standards (PS)** on Environmental and Social Sustainability, and IFC’s Access to Information Policy. The Policy on Environmental and Social Sustainability describes IFC’s commitments, roles, and responsibilities related to environmental and social sustainability.

The IFC **Performance Standards (PS)** and their applicability to the project is indicated in Table 3-3 below

TABLE 3-3: IFC Performance Standards and their Applicability to the Project

Performance Standards (PS)	Applicability
PS1 Assessment and Management of Environmental and Social Risks and Impacts sets out the Borrower’s responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the environmental and social standards.	Yes
PS2 Labour and Working Conditions recognises the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions.	Yes
PS3 Resource Efficiency and Pollution Prevention recognises that economic activity and urbanisation often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This standard sets out the requirements to address resource efficiency and pollution prevention and management throughout the project lifecycle.	Yes
PS4: Community Health, Safety and Security addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimise such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.	Yes
PS5: Land Acquisition and Involuntary Resettlement - involuntary resettlement should be avoided. Where involuntary resettlement is unavoidable, it will be minimised and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented.	Yes
PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources recognises that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognises the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. PS6 also addresses sustainable management of primary production and harvesting of living natural resources and recognises the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a project.	Yes
PS7: Indigenous Peoples ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities. PS7 is also meant to avoid	No ¹

¹ Based on secondary information, there is no apparent evidence of indigenous peoples having been reported in Senegal. The PSD may potentially affect nomadic and pastoralist groups, not defined as indigenous peoples, however who will require an adapted stakeholder engagement approach to be engaged with to assess any potential impacts or mitigation measures required. Of the potential minority groups reported in Senegal, it is noted that the Diola (Jola) ethnic group located in the southern Senegalese region of Casamance may potentially be impacted. Historic conflicts in the area have resulted in forced displacement of Diola peoples negatively impacting families’ economic and social prospects. Stakeholder engagement is to be undertaken to ascertain their presence/absence in the affected area, and any define potential impacts or mitigation measures required.

Performance Standards (PS)	Applicability
adverse impacts of projects on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimise, mitigate and/or compensate for such impacts.	
PS8: Cultural Heritage recognises that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. PS8 sets out measures designed to protect cultural heritage throughout the project lifecycle.	Yes

3.4 Gap Analysis between the IFC Performance Standards (PS) and National Regulations

The table below is an initial high-level analysis of the gaps between the International Finance Corporation's Performance Standards and national laws and regulations. Actions have been proposed in the ESAPs for the different risk categorisation categories to address these gaps.

TABLE 3-4: Gaps between the IFC Performance Standards and National Laws and Regulations

PS	PS Requirements	Senegalese legislation	Deviations	Actions
PS 1: Risk and Impact Assessment and Management Environmental and social	The project company, in collaboration with other responsible government agencies and appropriate third parties, will conduct an environmental and social assessment process and will establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with environmental and social risks and impacts.	An environmental and social assessment will be carried out in accordance with the provisions of Law 2001-01 of 15 January 2001 on the Senegalese Environmental Code. Decree 2001-282 implementing the Environmental Code to orders relating to ESIA and the Nomenclature of Classified Installations for the Protection of the Environment (ICPE) will be effective.	The requirements of PS 1 enshrine the establishment of an Environmental and Social Management System (ESMS) by the project promoter, while national regulations are limited to the development of an ESMP.	Carry out an environmental and social assessment in accordance with Senegal's legal and regulatory provisions while drawing inspiration from the contributions of PS 1 of the IFC, particularly with regard to the establishment and monitoring of an ESMS.
PS 2: Labour and Working Conditions	The project company will adopt human resources policies and procedures, appropriate to the size of its organization and workforce, that will describe its approach to managing workers. These policies and procedures shall comply with the	Taking into account the provisions of Act No. 97-17 of 1 December 1997 on the Labour Code, the provisions of the Conventions, the 2006 Decrees on Working Conditions and OSH, and ILO Conventions Nos. 155, 161 and 187 ratified by Senegal.	PS 2 does not differ significantly from national labour regulations in that it recommends compliance with them. However, it remains more comprehensive.	Take into account the legal and regulatory requirements in force at national level but also additional requirements in terms of training, labour-intensive work, local recruitment, equal

PS	PS Requirements	Senegalese legislation	Deviations	Actions
	requirements of this Performance Standard and applicable national laws.			opportunities as defined by PS 2.
PS 3: Resource efficiency and pollution prevention	During the life of the project, the project company shall take account of environmental conditions and shall apply the most appropriate principles and technologies of resource efficiency and pollution prevention at the technical and financial level to avoid or, where this is not possible, to limit adverse impacts on human health and the environment.	Taking into account the provisions of the Constitution of Senegal on natural resources, the Environmental Code, the Hygiene Code and the Senegalese Norms – NS relating to atmospheric discharges and wastewater for pollution prevention.	Matters relating to natural resources are taken into account in national regulations. Similarly, some NS standards govern pollution levels. However, there is no compliance on limit values and monitoring frequencies between national regulations and international best practices.	Combine national regulations with the requirements of Ps 3 for greater comprehensiveness, resource efficiency and pollution prevention measures.
PS 4: Community Health, Safety and Security	During the project lifecycle, the project company will assess the risks and health and safety impacts to which affected communities are exposed and take prevention and control measures in accordance with International Good Industrial Practices (GIIP), as described in the Environmental Directives, health and safety from the World Bank Group or from other internationally approved sources.	The right to a healthy environment enshrined in the Senegalese Constitution and the provisions of the Environmental Code relating to the control of sources of pollution and nuisances that may impact communities will be taken into account.	The management of communities affected by projects is better defined and more precise in PS 4 than in national regulations, which remain very basic.	Strengthen the regulatory provisions in force at the national level by the requirements of the PS4 which includes more details on the preservation of the health and safety of communities in the context of projects.
PS 5: Land Acquisition and Involuntary Resettlement	The project company will explore all possible design alternatives for the project to avoid or limit physical and/or economic displacement, while	The provisions of Law No. 76-67 of 2 July 1976 on expropriation in the public interest will be taken into account.	PS 5 is much more stringent and demanding on resettlement, including loss categories, identification of	Prioritizes, in the process of land acquisition in case of involuntary resettlement, the

PS	PS Requirements	Senegalese legislation	Deviations	Actions
	balancing environmental, social and financial costs and benefits, with particular attention to impacts on the poor and vulnerable groups.		PAPs, eligibility deadline, compensation amounts and livelihood restoration measures.	PS5 which is more complete, to the national regulations.
PS 6: Conservation of biodiversity and sustainable management of living natural resources	The project company should give priority to avoiding impacts on biodiversity and ecosystem services. When impacts cannot be avoided, it must put in place measures to limit impacts and restore biodiversity and ecosystem services.	The provisions of the Forest Code, the Constitution, which enshrines the obligation to protect natural resources, and the Environmental Code, which provides for the establishment of ESMPs after environmental assessments have been carried out.	Biodiversity conservation measures under PN 6 are more beneficial and have more benefits.	Favor the conservation conditions of biodiversity and natural resources proposed by PS 6, especially during the development of the ESMP and the monitoring of the ESMS.
PS 7: Indigenous Peoples	The project company will identify, through a process of identifying environmental and social risks and impacts, all Indigenous Peoples' communities likely to be affected by the project, as well as the nature and extent of the expected direct and indirect economic, social, cultural (including cultural heritage) and environmental impacts on these communities.	No special provisions adapted.	Senegalese legislation does not contain provisions governing impacts on indigenous peoples.	Not applicable
PS 8: Cultural heritage	In addition to complying with relevant national legislation on the protection of cultural heritage, including that relating to the implementation of the host country's obligations under the Convention for the Protection of the	The Convention for the Safeguarding of the Intangible Cultural Heritage, signed in Paris on 17 October 2003 and ratified by Law No. 2005-14, will be taken into account.	The requirements of PN 8 are strongly influenced by the provisions of the Conventions for the Safeguarding of the	Apply PS8 in the framework of the project as it has a better applicability in a practical sense than the Convention for the Safeguarding of the Intangible Cultural Heritage.

PS	PS Requirements	Senegalese legislation	Deviations	Actions
	World Cultural and Natural Heritage, the project company will identify and protect cultural heritage by ensuring the application of internationally recognized practices of protecting cultural heritage, to study it in the field and to support it with documents.		Intangible Cultural Heritage, while being more applicable	

4 Project and Main Sub-projects

4.1 Overview

This project involves the following main subprojects:

- The National Development Plan (PSD) Roads
- The Voirie Diamniadio (VD) Roads
- The Dande Mayo Road

Work done by SLR focuses only on the PSD and VD sub-projects (and their inter-dependencies with the Dande Mayo Road). The PSD and VD roads will improve rural accessibility throughout the country by building or rehabilitating around 2,407.9 km of road networks and improve traffic in the new Diamniadio district in Dakar. The project components in the national PSD road programme have not yet undergone any Environment and Social (E&S) Assessments to Lender standards although some sections have national EIAs approved, and they were also included in the SEA of the PSD carried out in 2021.

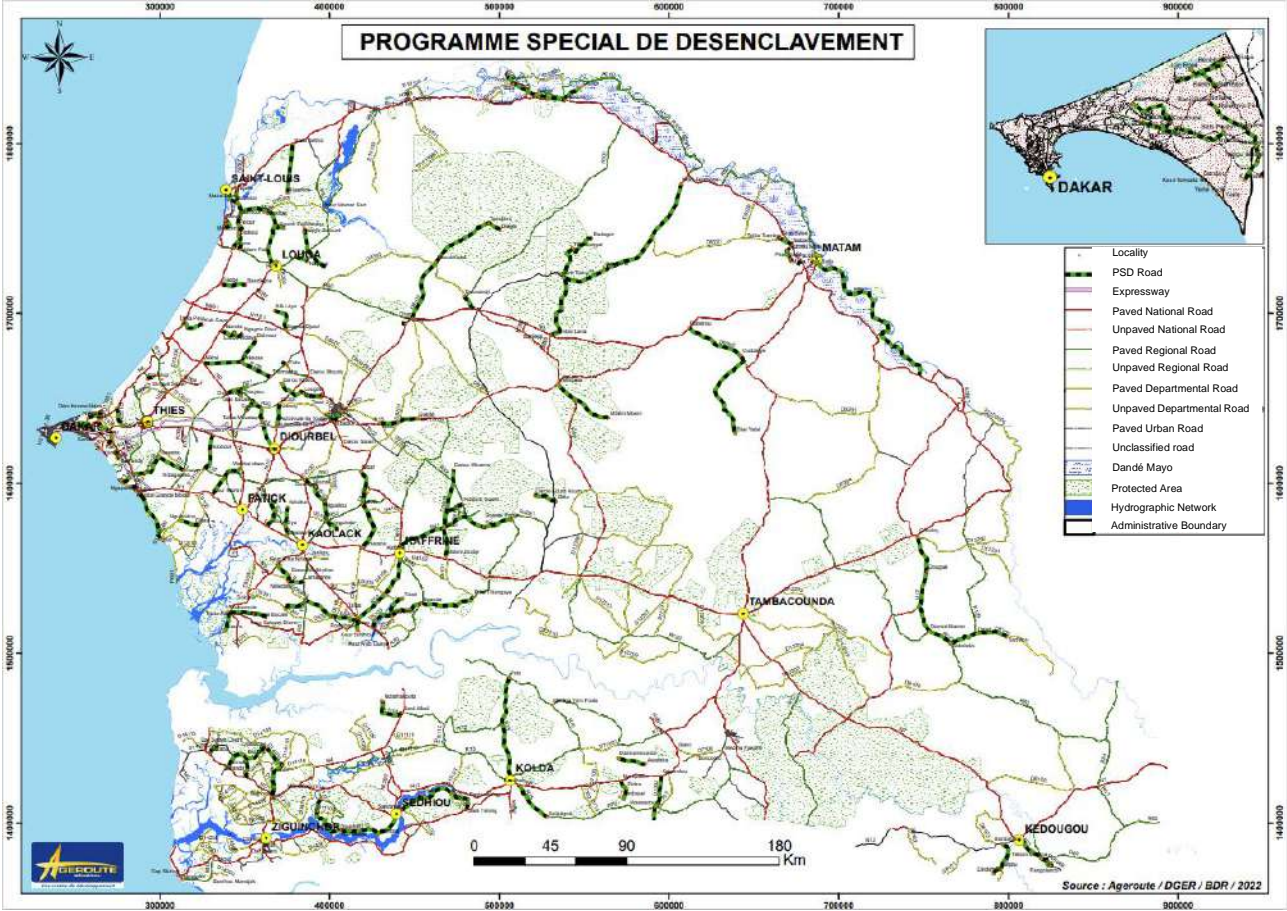
At the present time no detailed information on the VD roads is available.

In terms of project components and supply chain details, these are relatively limited at present (see Annexe H) and no detailed only high-level design documents, or design specifications have been received. While this is not critical for the SEA assumptions, the following will be used to inform it and to guide the ESAP. The following aspects of each road/work package will be considered as a minimum:

- Construction method(s)
- Locations of quarries
- Locations of borrow pits
- Locations of construction sand mines
- Locations of Worker's camps
- Locations of Project offices
- Locations of Project work sites and laydown areas
- Locations of Project asphalt plants
- Locations of bridges and crossing points.

Figure 4-1 shows the locations of each project components to be upgraded and assessed by this Project (indicated in green and black). Note-map is being upgraded and translated as part of this project.

FIGURE 4-1: Map Showing PSD Road Project Components Developed by AGEROUTE



Due to the geographical spread of Project Components, sharing of resources is not likely going to be a common practice. Each contractor will look to utilise resources that are closest to the project site to limit transport distances. This process will be monitored by ASGC as part of its management system and via the CESMP.

The two main aspects of the delivery of the PSD where sharing of resources may occur relate to Quarries/Borrow areas and Water Resources (surface and ground). SLR understands that there will be some shared associated facilities such as quarries (licensed) for crushed stone and laterite and that for borrow pits, water supply, batching plants, site workshops, etc., each subcontractor will be using their own sources and some of these facilities will be used for several project components (depending on their location). Meaning that one subcontractor may be using the same borrow pit for various project components provided that the project components are in the same geographical area.

For each project component, contractors will be required to identify the source of materials / resources. Where contractors are required to obtain permits/licences (i.e., for quarry/borrow areas as well as water abstraction from surface resources or establishment of new boreholes for groundwater) such permits shall be in place prior to use of the resource. In each instance where sharing of the resource (i.e, utilised by more than one contractor) is identified (either due to lack of other sources in the area, or to limit environmental/social impacts) the licensed contractor shall be responsible for management and monitoring of the resource (i.e., supply material to other contractors). All contractors are required to monitor and report on sources and volumes utilised.

This scenario may arise in

- Quarries/borrow areas (Laterite & sand), whereby more than one contractor may utilise an already existing quarry/borrow area operated by the relevant government department / licensed entity (i.e. contractor purchase materials); or where a Project contractor has obtained a license for a new quarry/borrow area and supplies material to other Project contractors
- Groundwater abstraction (Boreholes),
 - o whereby more than one contractor may utilise an already existing borehole. Should existing boreholes also be utilised by communities, the communities shall be engaged prior to any use thereof and a cooperative approach defined. This shall include the contractors make provisions to ensure continued access by the communities to the water resource.
 - o where a contractor has obtained a license for establishment and use of a new borehole and supplies water to other contractors. The licensed contractor shall be responsible for management and monitoring of the resource.
 - o In both scenarios relevant water balance studies are required to ensure sustainable use of the resource, and monitoring of volumes and quality are required
- Surface water abstraction (rivers)
 - o Surface water abstraction will likely only be feasible for certain project components located in close proximity to large rivers (limited). Where abstraction is feasible, each contractor would be required to undertake the relevant application / notification process in line with legislation to permit abstraction, they will be required to monitor volumes abstracted and make relevant financial allowances for any payments required in terms of national legislation / transboundary watershed management plans (where relevant).

In all scenarios, proactive engagement with communities shall be undertaken to inform them of the various scenarios, as well as the grievance mechanism, should they be affected by the contractors activities.

Grievances between contractors shall be managed in line with contractual aspects and managed and resolved by ASGC.

Identification and assessment of interdependencies relating to resources shall be further assessed for Medium/High risk projects in the E&S assessment process.

The following table provides an indicative identification of potential shared facilities for the PSD at the current stage of the project.

TABLE 4-1: Shared Facilities

Quarries	Subcontractors
Diack (basalt & crushed stones)	EBG COLAS CRBC JEAN LEFEVBRE SOTRACOMSYNOHYDRO
Sindia (laterite)	EBG JEAN LEFEVBRE
Keur Samba Kane (laterite)	SOTRACOM SYNOHYDRO
Dianké Makha	SAFIEDINE

Regarding sub-project inter-dependencies, ASGC has indicated that as of now no document has been created to set out a methodology or approach for inter-dependencies between sub-projects. As at this point, SLR has not received enough project information to fully understand what the extent of these inter-dependencies will be.

4.2 Schedule

The schedule developed for the project which was produced in April 2023 can be found in Annexe A.

4.3 Sub-Projects' Activities

While detailed specifications have not yet been developed, based on knowledge of similar projects in West Africa, we would expect the following activities to form some of the key activities required for these categories of projects:

TABLE 4-2: Key Activities for Sub-Projects

Key Activities
Initial Preparation
1. clearing and grubbing operations to remove vegetation (if any) from the roadway footprint.
2. shaping of the land where necessary (mainly where the road will be widened), prior to the execution of the general works give a regular appearance without cavities or irregularities.
3. Topsoil Stripping
4. Sourcing of construction materials including rock/laterite/gravel/sand
5. Creation of roadbed
6. Installation of drainage and hydraulic works including gutters ditches etc-type of approach likely to differ between urban/settlements and rural areas
7. Construction of drainages (gutters and ditches)
8. Development of concrete batching plants and bitumen/asphalt plants(temporary)
9. Creation of two temporary batching plant/office installations
10. Relocation of public services (i.e., power, telecommunications and water) and subsequent reinstallation
11. Diversions of public roads (temporary)
12. Creation/replacement of pavements/walkways-in urban areas/settlements

4.4 E&S Baseline

4.4.1 Environmental Baseline

Senegal is located in West Africa with a total surface area of 196,722 km². It is limited:

- to the north by Mauritania
- to the south by Guinea and Guinea Bissau
- to the east by Mali
- to the west by The Gambia and the Atlantic Ocean.

Senegal is an overall flat country with altitudes below 50 m on almost all of its territory except for its south-eastern end, on the foothills of Fouta-Djalou where Mount Bassari rises to 581 m.

Due to its advanced position in the Atlantic Ocean (far west of the African continent) and its coastline - more than 700 km long, Senegal has different climates between the coastal zone (mild) and the inland regions (harsh).

4.4.1.1 Geology

The geological formations of Senegal consist essentially of the Senegalese-Mauritanian sedimentary basin (Quaternary-Cretaceous) which covers almost the entire national territory with the exception of the southeastern end of the country (Kedougou Region), which consists of the Precambrian basement. However, some volcanic formations are located in the regions of Dakar, Thiès and Kédougou.

4.4.1.2 Hydrogeology

Senegal's groundwater resources are important and characterized by three types of aquifers:

- The superficial, unconsolidated aquifer system covering the entire sedimentary basin of Quaternary and Tertiary Senegal. These intergranular aquifers have high to very high productivity, especially in sand layers.
- The consolidated intermediate aquifer system which comprises the Eocene and Paleocene formations. It is mainly calcareous (most often Karst) and is located in the central and western part of the country. These aquifers are one of Dakar's main sources of drinking water.
- The deep aquifer system of sedimentary and consolidated nature belongs to the Maastrichtian (Cretaceous). It extends over the entire Senegalese-Mauritanian basin and generally consists of sand, sandy clay and calcareous sandstone. It is the main source of groundwater in Senegal.

4.4.1.3 Hydrographic network

The tropical regime river system is marked by significant differences in flow between the rainy and dry seasons that can sometimes lead to the drying up of rivers. The main river basins of Senegal are those of the Senegal and Gambia rivers, most of whose waters come from the Fouta-Djalou mountains. There are also smaller streams characterized by intermittent flows. These are the Casamance, the Kayanga with its main tributary the Anambé, the Sine, the Saloum and the coastal backwaters.

A number of lakes and ponds complete this hydrographic network; the most important being: Lake Guiers, Lake Tanma, the Bolongs (Channels) of the estuary areas, etc.

4.4.1.4 Pedology

In Senegal, several types of soils with unequal abilities (dry and sandy soils from the Sahel in the north to lateritic soils in the Sudanian Region in the south) are identified; with varied bioclimatic conditions and a diversified geological substratum. In general, soils are not very fertile and often susceptible to wind and water erosion. The general characteristics of the different soil types and the physical morphology of the fourteen (14) regions of Senegal are presented in the following table:

TABLE 4-3: General Characteristics of the Different Soil Types and the Physical Morphology of the Fourteen (14) Regions of Senegal

Regions	Soil type	Physical morphology
Dakar	<ul style="list-style-type: none"> • Hydromorphic soils: They are characterized by a high clay content, very fine, hard sands, on the surface horizon. • Vertic soils: These are very clayey soils, consisting of swelling clays (montmorillonite). • Tropical ferruginous soils. • Lithosols. • Soils with little evolution. 	<p>Geomorphologically, the Dakar region can be divided into three (03) large parts from West to East:</p> <ul style="list-style-type: none"> • The western extremity which divides itself into three (03) zones: <ul style="list-style-type: none"> • The south-eastern zone, of altitude between 15 and 40 m, is formed by volcanic flows and outcrops of the substratum (silt, marl and limestone) covered in the center by a lateritic cuirass. • The central area that has an altitude of less than 10 m. It consists of sands resting on a clay-limestone substratum with some outcrops. • The northwestern part which corresponds to the second massif of volcanic origin whose average altitude is the highest in the region (more than 60 m). • The second large part of the Cape Verde peninsula: It includes a set of dune ridges resting on a marl bedrock. Between these dunes, a series of dry lakes and very fertile shallows called "Niayes" were established. This is the field of vegetable cultivation and floriculture. The aquifers that are under the superficial sands are home to the infra-basaltic aquifer and the Thiaroye aquifer. • The eastern part of the region: It includes a set of hills and plateaus of altitudes below 50m. Its geological cover includes an alternation of marl and limestone, the most permeable of which are the Paleocene limestones of Sébikhotane, the sands and sandstones of the Mæstrichien, contain important aquifers. There is the extension of fertile lowlands and soils suitable for market gardening and arboriculture, particularly in rural areas.
Thiès	<ul style="list-style-type: none"> • Leached tropical ferruginous soils with a sandy texture. • Tropical ferruginous soils with a clay-sandy texture. • Leached tropical ferruginous soils with a clay-humiferous texture. 	<p>The Thiès Region is characterized by a relatively flat relief except for the Thiès plateau which culminates at 105 m above sea level, the Diass massif</p>

Regions	Soil type	Physical morphology
	<ul style="list-style-type: none"> Hydromorphic soils with a humiferous texture called lowland soils. Halomorphic soils. Hydromorphic soils. 	at 90 m above sea level and the Thiès basin which extends over an area of 65 km ² and measures 128 m above sea level.
Fatick	<ul style="list-style-type: none"> Tropical ferruginous soils. Ferralitic soils. The hydromorphic soils of the valleys. Halomorphic soils. Mangrove soils observed in islands and estuaries. 	The Fatick Region is covered by a large plain whose monotony is broken in its northern part by the two (02) valleys of Sine and Car-Car, and in the south by the valley of Djikoye. To the west, the Thiakor valley extends upstream of Faoye.
Kaolack	<ul style="list-style-type: none"> Hydromorphic soils. Lithosols. Ferralitic soils. Soils with little evolution. 	The region consists entirely of a vast plain that slopes gently to the west. This full is weakly notched by several shallow valleys with gentle slopes, the most important of which are those of Saalum, Bao-bolong, Nianijabolong, Koutango and Koular (SES, 2014).
Diourbel	<ul style="list-style-type: none"> Tropical ferruginous Only hydromorphes 	The relief of the central groundnut basin (Diourbel Region) is flat with altitudes of about 50m and elevations rarely reaching 2%
Kaffrine	<ul style="list-style-type: none"> Tropical ferruginous soils exploited for the cultivation of groundnuts and millet. Hydromorphic soils characterizing shallows and streams, with a generally clayey texture, called "deck" with "deck-dior" variants. Lithosols. Hydromorphic soils with halomorphic soils, characteristic of salty or tanne environments, encountered especially in the department of birkélane. 	<p>The relief of the eastern groundnut basin (Kaffrine Region) is flat as a whole and has a slight slope from north to south.</p> <p>Numerous small valleys and several outcrops directly or indirectly linked to shreds of plateaus or lowlands are present (National Institute of Pedology, 1998).</p>
Louga	<ul style="list-style-type: none"> Sandy soils They are very vulnerable to wind and water erosion that tear away their potential in nutrients. Clay-sandy soils, which are more fertile soils than Diors soils, with a humus bed from organic matter transported by water erosion. These soil types are permeable and rich in organic matter. Clay-loamy soils. 	The relief of the Louga Region is relatively flat, except in the western part, close to the Atlantic Ocean which has elevations characterized by alternating dunes and basins (Niayes area).

Regions	Soil type	Physical morphology
Saint-Louis	<ul style="list-style-type: none"> • Raw mineral soils or poorly developed soils of inputs: Characteristic of living coastal dunes, these soils generally have a coarse sandy surface horizon, a low content of organic matter in humiferous horizons and an often-acidic pH on the surface. • Subarid, red-brown soils: These falo-type soils on the banks of the river or backwaters consist of current deposits, with a low but homogeneous organic matter content over a large part of the profile. They are very sensitive to wind erosion when stripped. • Hydromorphic soils with halomorphic soils: These soils have the characteristics of a mangrove soil that has evolved as a result of their exundations. 	<p>The Saint-Louis region has a relatively flat relief marked by the presence of low-pressure areas. The region is marked by a dune alignment oriented from northeast to southwest on the mainland and to the west by a coastal cordon that constitutes the Langue de Barbarie.</p>
Matam	<p>The main types of soils identified in the Matam Region are soils:</p> <ul style="list-style-type: none"> • The soils of the banks of the river and the backwaters, they consist of current deposits, of sandy texture to sandy-clayey. • The soils of the so-called fluvio-deltaic embankments which develop on fluvial or low glacia terraces and are influenced by fluctuations in the alluvial water table; they have a clayey-sandy texture. • The heavy soils of the settling basins called "hollaldé" which are the soils of the settling basins in the different valleys; they are very clayey, poor in organic matter and have a low percolation rate. • Dune soils (dieeri and ferlo sandy) of essentially sandy texture (dior) with a low clay content of about 5% (service régional de la prévision et de la statistique de matam, 2004). 	<p>The relief is relatively flat compared to the rest of the country. It is marked by a vast plain incised with valleys. The high lifts are the main feature of the relief. Their heights decrease from upstream to downstream and they reach 13 m in Matam.</p>
Tambacounda	<ul style="list-style-type: none"> • Lithosols, • Tropical ferruginous soils • Regosols • Poorly developed soils that consist of erosion soils, • Hydromorphic soils with some variants such as those formed on alluvial materials, those from sandy materials, and those on gravel materials. • Halomorphic soils 	<p>The relief of the region is characterized by a relief, generally flat, notched by a network of fossil valleys (Sandougou backwaters, Mayel Diby ...) but also by the presence of some hills and mounds in the Bakel area</p>

Regions	Soil type	Physical morphology
	<ul style="list-style-type: none"> Vertical soils. 	
Kedougou	<ul style="list-style-type: none"> Tropical ferruginous soils raw mineral soils from erosion (lithosols) poorly developed soils of gravel erosion, vertisols, hydromorphic soils halomorphic soils 	Kedougou is located in a hilly region. The relief of the region is the most rugged in Senegal, with a highest point at 581 m in Sambangallou in the south of the region. The relief is interspersed by plateaus and valleys that constitute the main areas of cultivation of the region.
Sédhiou and Kolda	<ul style="list-style-type: none"> poorly developed soils which can be divided into 2 categories: <ul style="list-style-type: none"> soils not very hydromorphic on clay vessels: these hydromorphic salines (grassy tannes) and hydromorphic humic soils with salty Gley are generally little used. poorly developed soils of colluvionary input which are located on the beds of the backwaters, on certain edges of streams and on valleys of backwaters. leached tropical ferruginous soils (beige soils) which are characterized by the presence of concretions and ferruginous cuirasses frequently outcropping. weakly ferralitic soils which are so-called "bar soils" or even undegraded red soils located at the level of plateaus and terraces. the hydromorphic soils to salt Gley are located in the alluvial fluviomarin contact zones and border the Casamance River. 	The relief of this area (Kolda and Sédhiou regions) at altitudes up to 55 m in places and it is mainly composed of plateaus, valleys and shallows. The highest altitudes are recorded at the level of the plateaus, while the lowest altitudes are observed in the shallows.
Ziguinchor	<ul style="list-style-type: none"> Ferralitic soils that cover most of the region. Hydromorphic soils or grey soils, at the bottom of slopes. The hydromorphic soils with salt gley are from the alluvial fluviomarin contact and border the Casamance rivers. Halomorphic soils are acidified by the high salt content which makes them unusable. They are home to a vast beach of naked tannes sometimes colonized by halophytes. 	The regional territory has a generally flat relief. Along the Casamance River, the altitude level is substantially that of the sea. A small coastal portion is lowland and is less than one metre above sea level, facilitating marine intrusion.

4.4.1.5 Climate

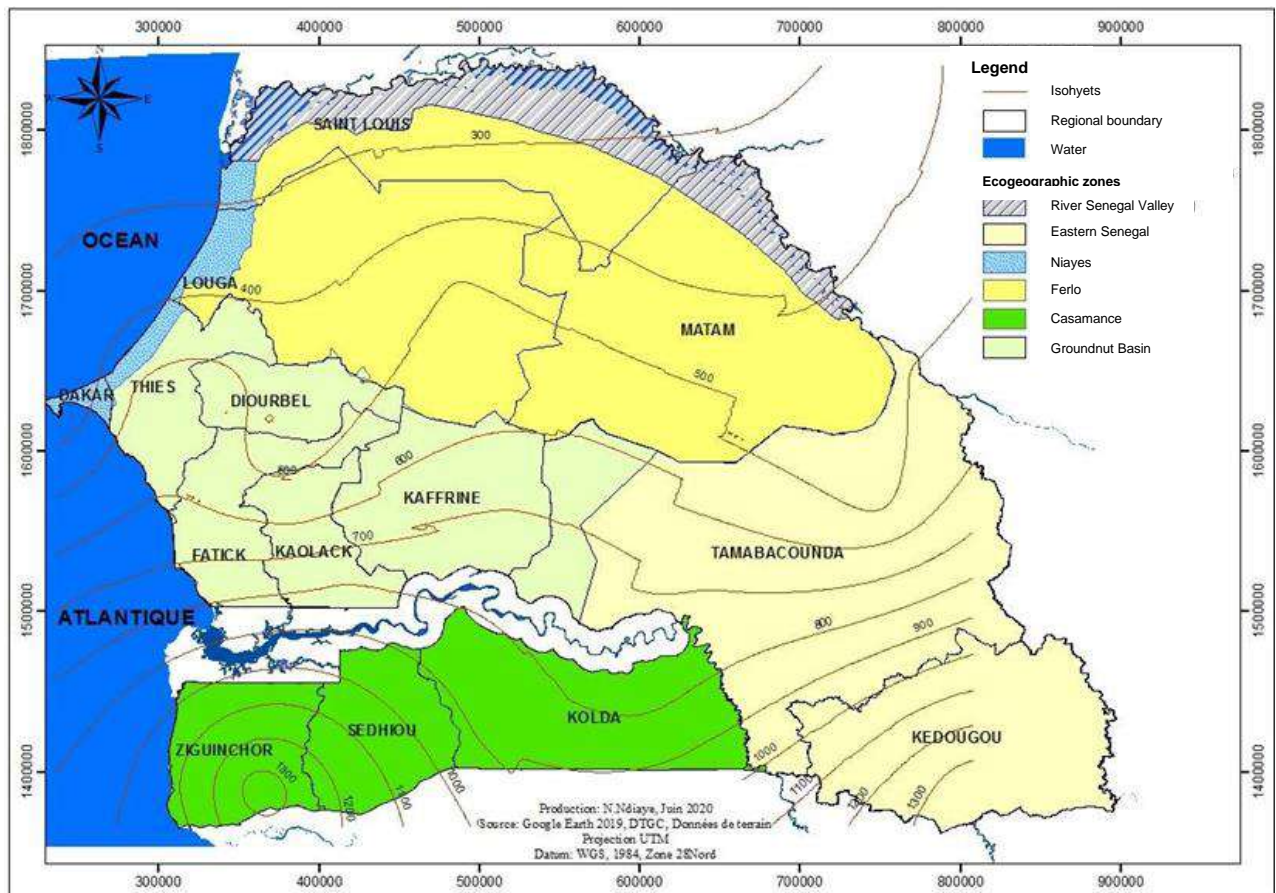
The climatic difference between the coastal zone (soft) and the inland regions (harsh) in Senegal, is explained by its advanced position in the Atlantic Ocean (extreme west of the African continent) and its coastline - more than 700 km long. The softness of the relief promotes atmospheric circulation. The latter gradually subjected the territory to the influence of the maritime trade wind, the harmattan and the monsoon. These flows determine a Sudano-Sahelian climate with two seasons:

- A rainy season (June to October) characterized by the monsoon - hot and humid wind from the St. Helena anti-cyclone.
- A dry season (from November to May) characterized by the predominance of the northern trade winds (maritime trade wind from the Azores anticyclone and harmattan from the Libyan anticyclone).

Rainfall varies over time and space. There is also a great hydro-climatic disparity between the humid south (with an annual rainfall greater than 1000 mm) and the dry north (receiving less than 500 mm of rain per year).

The rainfall situation at the national level is shown on the map below:

Figure 4-2: Map Showing the Isohyets and the Six Eco-Geographical Zones



The six eco-geographical zones of the country are as follows:

- The Senegal River Valley (Saint-Louis, Matam)

- The Silvo-pastoral zone of Ferlo (Saint-Louis, Louga and Matam)
- The Niayes area (Dakar Region)
- The Groundnut basin (Thiès, Fatick, Kaolack and Kaffrine)
- Casamance (Ziguinchor, Kolda and Sédhiou)
- Eastern Senegal (Tambacounda and Kédougou)

4.4.1.6 Biological Environment

Plant resources

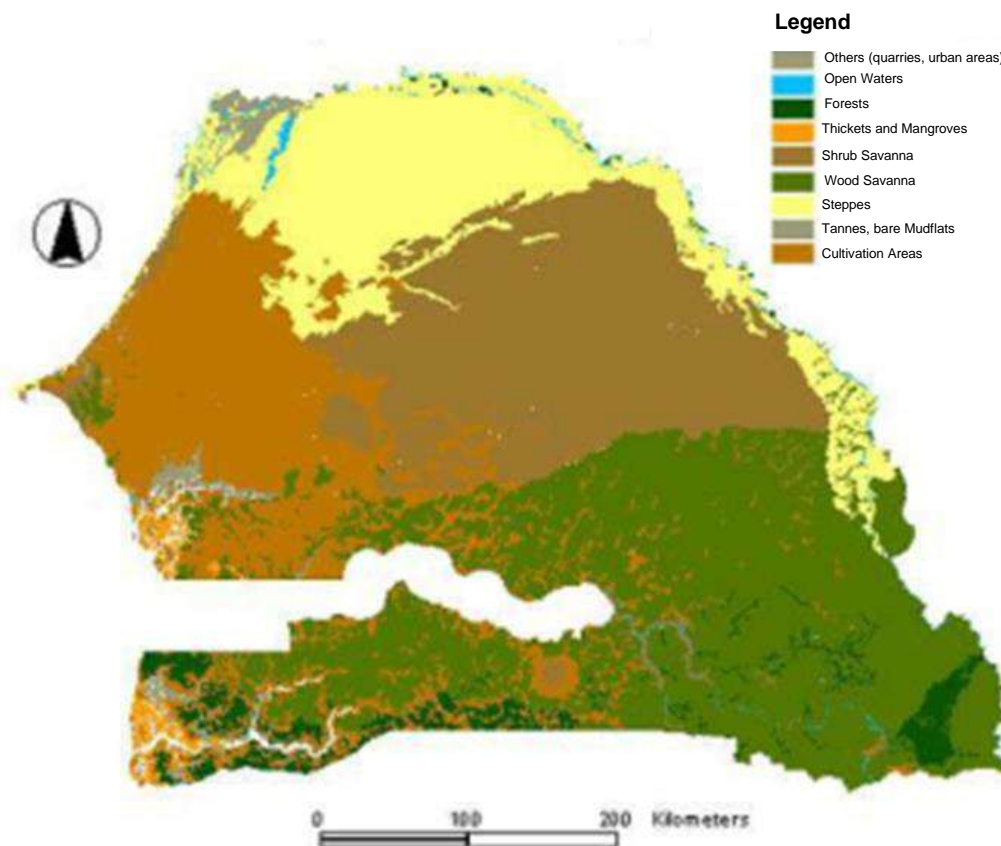
The distribution of vegetation is essentially linked to that of rainfall and modelling. Five major zones of tropical climate variation are distinguished from North to South:

- The Sahelian zone: (between Rosso and Matam / Louga) is marked by increasing desertification. The vegetation is dominated by thorny species of the genus acacia, there are also some baobabs and shrubs.
- The Sahelo-Sudanian zone: (from Matam / Louga to Fatick) is an area of dry savannah, with the presence of Acacias, cheese trees, baobabs, etc.
- The Sudanian zone: (from Fatick to Haute-Casamance) is marked by a denser savannah. Sparse forests of baobabs, cheese trees (Ceiba Pentandra), acacias (genus Acacia), palm trees are encountered.
- The Sudano-Guinean zone: (from Haute-Casamance to Kolda) contains savannahs and very dense forests with cheese trees (Ceiba Pentandra),, baobabs, palm trees, pine trees, roniers, etc.
- The Guinean zone: (south of Casamance) is characteristic of tropical rainforests.

In addition, forests, galleries are encountered along rivers and in the Guinean domain, mangroves on the banks of rivers and estuaries, and the Niayes.

Senegal offers a mosaic of ecosystems illustrated through the map below.

Figure 4-3: Map Showing the Vegetation Distribution in Senegal



Source : PNAT/EROS/CSE

The steppes cover a good part of the northern area of the country, and they are constituted by the presence of a herbaceous carpet dominated by *Borreria verticillata*, *Indigofera oblongifolia*, *Chloris prieurii*, *Schoenofeldia gracilis* etc., dotted with thorny woody species such as *Acacia raddiana*, *Acacia senegal*, *Acacia seyal* and *Balanites aegyptiaca*.

Savannahs cover the central third of Senegal's territory.

- Wooded to shrubby savannahs cover the areas of the Centre. They are characterized by woody species such as *Cordyla pinnata*, *Ficus sycomorus*, *Diospyros mespiliformis*, *Dichrostachys cinerea*, *Acacia macrostachya*, *Combretum spp*, *Ziziphus mauritiana*, *Sclerocarya birrea*, *Neocarya macrophylla*.
- The woodlands are dominated by species such as *Sterculia setigera*, *Lannea acida*, *Sclerocarya birrea*, *Pterocarpus erinaceus*, *Parkia biglobosa*, *Terminalia macroptera* and *Daniellia oliveri*. In these plant formations, the herbaceous layer is marked by species of the genus *Andropogon*, *Hyparrhenia*, *Digitaria*.
- In the southern zone of the country there are open forests, dense dry forests and gallery forests.
- The open forests are located in Upper and Middle Casamance and are characterized by the predominance of species such as *Pterocarpus erinaceus*, *Khaya senegalensis*, *Daniellia oliveri*, *Ceiba pentandra*, *Terminalia macroptera*.

- The dense dry forests are located in Lower Casamance and are dominated by *Erythrophleum guineense*, *Detarium senegalense*, *Malacantha alnifolia*, *Parinari excelsa*, *Pentaclethra macrophylla*, *Raphia sudanica*, *Carapa procera*.
- Gallery forests occupy the valleys. There are species such as *Elaeis guineensis*, *Erythrophleum guineense*, *Khaya senegalensis*, *Carapa procera*, *Alchornea cordifolia*.

The deltaic and estuarine areas (Saloum and Casamance) are characterized by the presence of mangroves, consisting mainly of the following species: *Rhizophora racemosa*, *Rhizophora harissonii*, *Rhizophora mangle*, *Avicennia africana*, *Laguncularia racemosa* and *Conocarpus erectus*.

The Niayes located on the northern coast constitute a coastal wetland rich in flora of Guinean affinity. They are dotted with depressions in which takes refuge a vegetation typical of the Guinean domain. These stands are dominated by species such as *Acacia nilotica*, *Acacia tortilis*, *Acacia seyal*, *Balanites aegyptiaca*, *Tamarix senegalensis*, *Vetiveria nigritana*, *Salvadora persica*, *Schoenefeldia gracilis*.

Wildlife Resources

The diversity of habitats explains the variations in faunal composition. The environment offers favorable conditions for the presence of a more or less rich and varied fauna in certain regions. On the other hand, in other regions, wildlife resources are affected by the degradation of vegetation cover, due to high urbanization that has considerably reduced their habitats, overexploitation or harsh climate conditions. Wildlife is almost mainly located in/or around protected areas (parks, classified forests, reserves,). On the other hand, it is found everywhere the presence of furry fauna, composed mainly of hares, palm rats, warthogs, jackals, civets, patas, green monkeys.

The avifauna is composed of terrestrial and aquatic species including guinea fowl, francolin, turtle doves, quail, bustards, gangas, Gambian geese, hornbills, and red throats. Migratory birds are also highly represented in important wetlands.

Protected Areas

Several areas with special status and protected areas are present in the country.

Protected domain consists of all areas of uncultivated terroir covered or not by unclassified wooded formations.

Classified domain constitutes all the classified areas that are:

- Classified Forests (CF) which are constituted with a view to their conservation, enrichment and soil regeneration, by any means of management and protection.
- Sylvopastoral reserves (RSP) which are natural formations with restrictions on industrial crops to allow the exploitation of biomass.
- National parks (NPs), which are areas where there are no exploitation of wildlife, flora and soil resources for nature conservation.
- Marine protected areas (MPAs), which are areas delineated and monitored to protect marine resources.
- the Zone of Hunting Interest (ZIC) which are a part of the territory where game and hunting are of economic and scientific interest.

- Biosphere reserves are areas of ecosystems that aim to promote solutions to reconcile biodiversity conservation with its sustainable use. They are internationally recognized.
- Forest areas are forests of community interest, managed by communities.

4.4.2 Socio-Economic Baseline

This section of the SEA Report provides an initial high-level summary of the main aspects of the social baseline in Senegal.

4.4.3 Demography

In 2022, the population of Senegal was estimated at seventeen million seven hundred and thirty-eight thousand seven hundred and ninety-five (17,738,795) inhabitants. There are 8,913,568 women and 8,825,227 men, or 50.24% and 49.76% of the population respectively. This population is characterized by its youth, of which the under-20s represent 55% of the population. The annual growth rate is 3.8% (ANSI_SES_2019 and population projections 2015-2025).

Senegal's natural demographic dynamics are marked by a still high birth rate (crude birth rate of 37.1 per thousand in 2017 and 36.8 per thousand in 2018) and a constantly decreasing mortality rate (crude death rate of 7.3 per thousand in 2017 and 7.1 per thousand in 2018). In addition, the Total Fertility Rate (TFR) has shown a slight downward trend over the past two years. Thus, it went from 4.6 in 2017 to 4.4 in 2018.

More than half of the country's population (54.72%) is of working age. By gender, the percentage of working-age men is 53.85% compared to 55.59% of women. Just over half of people living in Senegal live in rural areas (53.5%) compared to 46.5% of urban dwellers. The urbanization rate is estimated at 46.93%. There are large disparities in the distribution of the population between regional administrative entities. The Dakar Region is home to more than 23% of Senegal's population. It is followed by the regions of Thiès and Diourbel where 13% and 11% of the population live respectively. The Kedougou Region is the most sparsely populated with a proportion of the Senegalese population that barely exceeds 1%.

The rural exodus is significant in Senegal. The population of cities with more than one million inhabitants is growing rapidly. Now, one (01) Senegalese in four (04) lives in the peninsula of Cape Verde, around the capital, Dakar.

In Senegal, the income poverty rate is estimated at 37.8% in 2018/2019. However, there are large disparities between places of residence and between regions of the country. Indeed, poverty affects the rural population more, where more than half (53.6%) live below the poverty line, while in urban areas it affects only two people out of ten (19.8%). In addition, 75.4 per cent of the poor live in rural areas compared to 24.6 per cent in urban areas.

Senegal is socially characterized by its linguistic and religious diversity. There are 22 main ethnic communities in Senegal. But within each ethnicity, there are often subgroups that speak languages that are sometimes very different from other subgroups of the same ethnicity. These "patois" are quite often regional. One could speak of the Serers of Thiès who do not speak exactly the same Serer as the Fadiouths. The Diolas Fognys, Diolas Essils, Diolas Floup, Diolas Karolinkas, Diolas Bayot, and other groups who each speak a language quite different from the others. It is with these differences that we see the complexity of the social landscape of ethnic groups and especially its richness.

The Wolofs represent 43,3%(SSI, 2014) of the total population, are dominant and are more concentrated in central Senegal, followed by the Pulaar (23,8%) who are more present in the north and a little in the south of the country in the regions of Saint-Louis, Matam and Kolda, then the Serers (14,7%)who are more present in the regions of Thiès, Diourbel and Fatick, then the Diolas (3,7%) who are more present in the south of the country, the Lebous (7%) are concentrated in the coastal zone, and the Mandingo (3%) are present in the triangle of OMVS and in Haute Casamance, among others. The strong relationships between these different ethnic groups contributes to the maintenance of social cohesion. Foreign ethnic groups reinforce this mixing.

4.4.4 Gender and social inclusion

Senegal has adopted since 2005, the National Strategy for Gender Equity and Equality (SNEEG) which is the document and the global reference framework that clarifies the country's vision on gender and defines actions to gradually and effectively integrate gender issues into development priorities.

Based on the conclusions of the mid-term review of the SNEEG 2005-2015 and the orientations and priorities for action of the Senegal Emergence Plan (PSE), the second phase of the SNEEG (2016-2026) was formulated according to a human rights-based and results-oriented approach.

The enrolment rate for girls has reached 95% compared to 89% for boys in Senegal, this rate varies according to the region. Thus, it is 56% in Diourbel and Touba (in the center of the country) while other regions such as Kaolack (central west), Matam (north) and Louga (northwest), this rate varies between 50 and 76%.

In Senegal, despite their central role in economic and social development, women still have limited access to productive resources such as land and credit. Constraints related to access to basic social services also undermine their potential for economic initiatives and therefore weaken their decision-making power.

In Senegal, like most countries, the problem of gender-based violence (GBV) has been confined to the domestic sphere, where the state and the authorities intervene only if there is a "disturbance of public order". A positive development should be noted, however, insofar as GBV has now been posed and considered as a societal problem since 2012.

However, despite these efforts made in recent years in terms of the fight to eradicate GBV, women still suffer acts of violence of various kinds and forms and in systematic and recurrent ways.

GBV mainly concerns women and results from the asymmetry of power relations according to gender, class belonging, urban or rural residence. Therefore, any fight against GBV must be based on a preventive approach using the media and information and communication technologies (ICTs) to make them public, with the establishment of a system of monitoring, warning and monitoring by ICTs with a view to accountability of the public authorities.

4.5 Basic social services

4.5.1 Education

Overall, at the elementary level, access indicators have reached a high level with gross enrolment rates (GER) and IC admission rates above 100%.

On average, CM2-6th transition rates increased between 2015-2016 and 2018-2019. However, it is clear that the gross enrolment rate (GER) is still low in the middle and general secondary cycles. In addition, quality

indicators such as transition or success still need to be improved by taking steps to raise their level. Indeed, the transition rate from the elementary cycle to the general middle cycle, even if it increased in 2015-2016 and (2018-2019) still does not reach 80%. Moreover, it is higher for boys than for girls and remains lower in the regions of Diourbel and Tambacounda. (ANSD_SES_2019).

The Senegalese education system comprises several levels ranging from preschool to higher education, including elementary, middle, secondary and vocational and technical training. Here again, urban areas concentrate most of the infrastructure and staff. At the preschool level, 56.9% of infrastructure is concentrated in urban areas (31.6%) and, to a lesser extent, in the regions of Thiès (12.0%), Ziguinchor (9.6%) and Louga (8.9%).

National data on the education system provide the following data. Regarding elementary school, in terms of reception facilities, there are 9827 establishments in 2016 against 9549 in 2015 and the share of the public represents 84.7% of schools. At the average level, there are nearly 2,000 schools for 747,000 students. 61% of the infrastructure is made up of public institutions, which predominate in all regions except Dakar.

Secondary education, consisting of two (02) components (general education and vocational and technical training) is provided in general education high schools, technical high schools and vocational training centers with several streams. This secondary education is provided in 827 structures. Some schools also welcome middle school students, they also represent 81% of the infrastructure.

Private institutions account for 61.7% of the overall offer. Rural areas account for 26.4% of secondary schools.

In 2016, there were 384 structures dedicated to vocational and technical training, including 11 technical high schools. Nearly 75% of these structures are private and Dakar concentrates 52.3% of vocational and technical education institutions. Thiès and Ziguinchor follow with 13.0% and 8.6% respectively.

Higher education has seen a lot of progress in terms of reception of facilities in recent decades. Today, eight (08) public universities are listed on the national territory: Cheikh Anta Diop University of Dakar (UCAD), Amadou Mokhtar Mbow University of Dakar in Diamniadio (UAMM), Gaston Berger University of Saint Louis (UGB), University of Thiès (UT), Alioune Diop University of Bambey (UADB), Assane Seck University of Ziguinchor (UASZ), University of Sine-Saloum and Virtual University of Senegal (UVS).

With regard to literacy, the proportion of people over 15 years of age who could read and/or write was 51.9% with a low representation of women (39.8% for women against 60.2% for men).

4.5.2 Health

Health facilities are concentrated in urban areas and in major regional capitals. Most of the staff are in large cities and Dakar accounts for 39% of health professionals, followed by Thiès (10%) and Kaolack (7%). Moreover, these figures hide disparities according to the type of staff. Indeed, 65% of the country's doctors and 77% of pharmacists are in Dakar compared to 1% or less in Kédougou. Similarly, 65% of paediatricians are in Dakar, unlike in Kédougou, where there is no paediatrician. This situation is attributable on the one hand to the high demographic concentration in Dakar and on the other hand, to the strategic position enjoyed by this region constituting a lucrative pole in the health budget (ANSD_SES/2019).

The distribution of health structures follows the same logic, with the exception of Health Cases and Level 2 Public Health Establishments (EPS), Dakar is the region best endowed with health infrastructure. Senegal has 11 EPS level 03, 10 of which are in the Dakar Region and one in the Diourbel Region (Touba Commune).

The regions of Kolda and Sédhiou are the least endowed with health infrastructures. Indeed, they have respectively 03 and 05 health centers out of a total of 99.

In addition, there are 50 health posts for the Sédhiou region and 59 for the Kolda region out of a total of 1456 at the national level. On the other hand, the Kolda Region has the highest number of health huts, at 111 out of 708.

4.5.3 Water and sanitation

4.5.3.1 Drinking water supply

In Senegal, the majority of households have access to drinking water from an improved source. Indeed, more than four out of five households (86.2%) obtain drinking water from an improved water source.

Despite a considerable gap compared to the urban area, the rural area has a significant proportion of its households using an improved water point to collect drinking water (76.5%). In urban areas, more than 9 out of 10 households use an improved source. In addition, just over one-third of households in the poorest quintile 18 (36.7%) do not have access to an improved water source where almost all of the rich (97.7%) or richer (98.6%) use an improved water source. It should be noted that the higher the standard of living, the higher the likelihood of having access to an improved water supply point.

As far as water points are concerned, the unprotected well is the main type of unimproved water point (99.5%). While on the side of improved sources, the tap, mainly domestic, is used by nearly 8 out of 10 households. This type of improved water point is used by the majority of rural households using an improved water point (54.4%) and more than a fifth is supplied from a public tap (20.8%).

It should be noted that bottled water appears as the third source of improved water at the national level (6.4%) and the second source in urban areas (10.8%) while in rural areas, 9.8% of households use water from the tanker truck for drinking, making this source the third most important type of water point for the area.

The tap (domestic and public) is thus the main drinking water collection point for at least seven out of ten households using an improved source, the second type of water source being, depending on the area, either a tanker truck in the center (20.6%) or a well in the north (12.7% for pump/borehole) and in the south (well or a protected source 10.9%, pump well or borehole 13.3%) or bottled water in the west (12.1%).

4.5.3.2 Sanitation and waste management

In Senegal, just over a quarter of households do not have improved toilets (29.9%), of which about 12.5% practice open defecation. Most households use improved toilets. These are generally toilets with a flush or manual flush connected to a septic tank (43.7%).

The sewage system is poorly developed. Toilets connected to a sewage system are used by only about 9.0% of households.

Regardless of the setting of residence, the majority of households use improved toilets. However, in rural areas, more than 4 out of 10 households use unimproved toilets, of which almost a quarter do not have toilets and use nature as a place of ease (23.8%) and 15.5% use slabless latrines.

In urban areas, households generally use improved toilets, mostly toilets equipped with a mechanical or manual flush connected to a septic tank (60.0%) or a sewer system (17.6%) (ANSD_SES/2019).

With regard to household solid waste, Senegal has a national strategy for integrated solid waste management that aims to improve its management at the local and national levels.

However, in rural areas, people still practice littering or burying waste.

4.5.4 Road transport

The construction of road infrastructure occupies an important place in the Priority Action Plan of the Senegal Emergence Plan (PSE), particularly in axis 1 corresponding to the structural transformation of the economy. Improving the quality of the road network is a priority for the State of Senegal.

In 2019, transport services are used mainly as intermediate consumption by enterprises (67.8%) and final consumption (21.6%) by households, the State and Non-Profit Institutes serving Households (NPISH).

The wealth created by transport services contributed 2.1% of Gross Domestic Product (GDP) in 2019. Compared with 2018, this share of wealth produced by transportation activities fell by 0.1 percentage points.

By mode of transportation, the warehousing and auxiliaries subsector occupies the largest share and accounts for 46.2% of transportation services output in 2019. Over the last five years, the share of this subsector has exceeded 45% on average. It is followed by road transport with 45.7%. These two transport subsectors thus contribute to more than 90% of the sector's output.

In the road transport subsector, several achievements have been made throughout the territory. In 2019, in addition to the maintenance and construction of the production tracks that were implemented, the following roads were completed:

- Dialacoto – Mako (63 km)
- Lompoul-Leona (33km)
- Sédhiou – Kamoya-Marsasoum (54km)
- Sédhiou-Bambali-Djibabouya-Marsassoum (81 km)
- Oourossogui-Hamady Ounaré (52 km)

In 2018, the following infrastructure was completed:

- Ila-Touba highway
- AIBD-Thiès motorway
- AIBD-Malicounda
- Rehabilitation of the national road 2 between Ndioum-Oourossogui-Bakel.

The length of Senegal's road network is 16,495 km in 2019. Indeed, the State's infrastructure policy is oriented towards improving the quality of the existing network rather than increasing its length.

The State's achievements on infrastructure are essentially aimed at improving the quality of the existing network. The proportion of paved road network in good condition improved by 3 points from 79.7% in 2018 to 82.3% in 2019 (ANSD_SES/2019).

The State of Senegal has embarked on major projects that will improve mobility and change the modal structure of road transport. These projects are essentially the Bus Rapid Transit (BRT), the Mbour Fatick Kaolack highway and the construction of the Niayes road.

4.6 Cultural heritage

Senegal has seven (07) properties inscribed on the UNESCO World Heritage List, including five (05) cultural properties (Megalithic Circles of Senegambia, Saloum Delta, Gorée Island, Saint-Louis Island, Bassari Country: Bassari, Peul and Bédik cultural landscapes) and two (02) natural (Djoudj National Bird Park, Niokolo-Koba National Park). The country has also submitted 8 sites to the tentative list, of which six (06) are cultural and two (02) mixed.

UNESCO has inscribed two (02) rituals of Senegal on the Representative List of ICH of humanity: the Kankurang (2008) which is an initiatory rite and the Xooy (2013), a divinatory ceremony. These two (02) rituals are part of fifty-nine (59) other elements listed in the national inventory of ICH elements.

Sites and traditions important to local populations exist throughout the country and contribute significantly to the conservation of natural resources. These SNS include forests, trees, islands, etc.

Other elements such as tales, sculpture, the Signares (group of women with high social rank during the colonial period) or the Simb (dance imitating lions) can also be retained in the rich cultural heritage of Senegal.

4.6.1 Land tenure

Prior to colonization, land tenure was governed by customs. This system was characterized by an overlapping of rights and the absence of individual land ownership: land was owned by the lineage family managed by the head of the family; it was inalienable, and daughters were excluded from their father's estate. Therefore, with colonization, the colonizer tried to introduce the Western concept of individual property rights by different decrees, the most important of which are:

- The decree of 20 July 1900 which introduced the technique of registration of real estate.
- The decrees of 1925, then 1955 which attempt to establish and transform customary rights into property rights.

This attempt to transform traditional rights into property rights was not successful for several reasons such as, lack of information, lack of interest, because Africans already had undisputed customary rights, refusal as opposed to colonizer.

After Senegal's independence in 1960, the law on the national domain was passed on 17 June 1964 and amended in 1972 on the occasion of the establishment of rural communities.

Prior to the National Domain Law, village chiefs were the main assignees of land in their territory, thus remaining the holders of land power. However, with the entry into force of the law on the national domain, local authorities remain the managers of the land.

The land, usually acquired by fire, axe and hoof rights, was entrusted to the management of a land chief, usually the first occupant (village chief or head of family) sole holder of land rights. It is therefore this chief who allocates the land and distributes it among family communities responsible for exploiting it. Thus, the fundamental reason for the institution of the law on the national domain was to democratize access to land and at the same time promote its development.

Governed by Articles 5, 6 and 7 of Decree 72-1288 of 27 October 1972, inheritance can be qualified as a transversal mode of access insofar as hereditary transmission takes place both on customary lands and on those affected by the Cr. The law stipulates that "The assignment ends, ipso jure, on the death of the natural person or on the dissolution of the association or cooperative assignee" (Article 5). 'In the event of the death of the assignee, his heirs shall obtain the allocation for their benefit of all or part of the land assigned to the deceased, within the limits of their capacity to exploit and provided that this allocation does not result in the constitution of plots too small for a profitable exploitation. In this case, the allocation may be made to certain heirs only on the basis of their capacity to operate".

Nowadays, two land regimes coexist in Senegal to administer the right of property: the registration regime and that of the national domain. All lands in the national territory are subject respectively to these two regimes as regards their management and mode of administration.

- The registration regime covers all land, located in both urban and rural areas, which has been registered in the name of individuals, natural or legal persons, which guarantees their final and unassailable right of ownership over demarcated portions of land. In real estate, this is a manifestation of the pledge of private property guaranteed by article 15 of the Constitution.
- As for the national domain regime, it applies to all lands, both urban and rural, which are not registered, and which were previously covered by customary law. This regime is the result of the land reform carried out in 1964 following the conclusions of the study on the customary regime.

4.7 Socio-economic situation

4.7.1 Employment

In 2020, the employment rate was estimated at 43.3% for the working-age population (aged 15 or over), (ANSD, 2021) with 47.7% in urban areas, compared to 37.9% in rural areas. More pronounced differences were observed between men and women. The employment rate for men was 56.2% compared with 31.1% for women.

The unemployment level was estimated at 16.7% in 2020, which was a slight decrease compared to previous years.

The breakdown of the employment rate by sector is as follows:

- For the primary sector "Agriculture, forestry, fisheries" (15.1%)
- For the secondary sector "Manufacturing activities" (13.5%); "Construction" (9.8%)
- For the tertiary sector "Education" (11.4%), "Transport and warehousing" (9.44%), "Special household activities" (9.0%) and "Trade and repair " (8.6%)

4.7.2 Agriculture

Agriculture is the main economic activity practiced in Senegal. It mobilizes nearly 70% of the population and occupies an area of 3.2 million ha (FAO, 2020). Senegalese agriculture is mainly rainfed and seasonal. The main speculations are:

- cereal crops: millet, rice, maize, sorghum
- cash crops: groundnuts, cotton
- food crops: cowpea

- vegetable crops: onions, tomatoes, salad, potatoes; and
- fruit crops.

Agricultural production accounts for 3-4% of the country's overall exports (WTO, 2015). The main exports are fruits and vegetables (watermelons, mangoes, but sweet, green beans), cotton and peanuts.

Livestock and fishing also occupy an important place in the economy. Livestock consists mainly of sheep and cattle. Poultry production was estimated at 114 200 tonnes in 2019 (FAO, 2019). Senegal does, however, import a large proportion of its meat consumption from countries such as Mali, Mauritania and Chad.

Fishermen in Senegal are mainly found in the regions of Thiès (40%), Saint-Louis (22%) and Dakar (15%), In 2016, 397,871 tons of fish, compared to 89,564 for industrial fishing were landed (ANSD, 2016). The products from fishing, are in particular crustaceans (lobster, shrimp, crab) and most of the so-called noble fish of Senegal (captain grouper, red mullet, sea bream, sole.)

5 Environmental and Social Work Programme for Project Strada

This SEA is to be used to develop the work packages into which Project Strada will be divided and structured. It is acknowledged that the E&S workstream will drive the implementation of Project Strada. The project components into which Project Strada will be sub-divided will be related to the risk categorisations but may well contain more than one categorisation in terms of the sub-components(sections) it is comprised of.

Implementation will be led by ASGC along with the supervision of an IESC appointed by ASGC on behalf of the Lenders. ASGC has already been working with the contractors to raise awareness of all the loan requirements including but not limited to E&S, procurement, anti-bribery and corruption. All the contractors engaged on the project have been acknowledged and signed ASGC's set of policies that will oblige them to comply with the Applicable Standards. ASGC is developing site specific CESMPs complying with the Lender's requirements in collaboration with the contractors.

All E&S documentation will be subject to the IESC's approval on behalf of the Lenders prior to the start of any works on site.

6 Management Programme

6.1 Environmental & Social Risk Screening and Categorisation

To inform the categorization and the assessment of the PSD roads, several assumptions have been made. These are as follows:

- All roads categorized as being either High or Medium E&S risk will require an International ESIA to Lender Standards that considers national requirements and a CESMP to Lender requirements. The ESIA may be based on an existing national EIA where it exists but will need to be fully in compliance with Lender Standards. This may include additional primary data collection.
- Roads categorized as being Low E&S risk will require a national environmental approval and a CESMP to lender standards.
- Roads categorized as being either High or Medium risk will require primary data collection in particular in relation to biodiversity and social impacts. This should be designed on a case-by-case basis.
- Roads categorized as Low Risk will require only secondary data collection.
- All roads involving physical or economic resettlement will require a Resettlement Action Plan/Livelihood Restoration Plan (RAP/LRP) in line with Lender requirements and national regulations. This will follow the process outlined for Project Strada as a whole in its Resettlement Policy Framework (RPF).
- All project components will have Stakeholder Engagement Plan (SEPs_) within their CESMPs.
- All project components will have Community Grievance Mechanisms within their CESMPs.
- If a “work package” contains road of different risk categories, then the highest category will apply to all roads within the package in terms of the ESIA and other requirements.

The above assumptions may change as the Project progresses.

The categorization draws on the IFC’s project categorization and other applicable Lender requirements including Equator Principles IV and the OECD’s categorisation requirements for road construction.

TABLE 6-1: Key E&S Risk Categorisation Criteria

Criteria	Major Upgrades (new roads or change from gravel to surfaced)	Moderate Upgrades (resurfacing or upgrade)	Minor Upgrade (existing roads repairs)	OECD categorisation (for road construction)
In or close* to a protected area	H	H	M	H
Crossing a wetland	H	H/M	M	H
Other biodiversity interest	H	M	L	H
Modified habitat	M	M	L	M
Urban areas	L	L	L	M
Physical/economic resettlement	H	H	M	H

*Within 1km – an approximation based on analysis of imagery and observations during field work

6.1.1 Risk Categorisation for High-Risk category PSD Project Components

Table 6-2 presents the environmental and social issues of greatest relevance to High-Risk projects. These fall within the scope of the SEA of Project Strada and will be used to assess and to categorize the individual roads and road packages within the PSD programme that fall under the management of ASGC.

The results of the categorization and the application of the E&S risk assessment criteria will be used to develop the ESAP.

TABLE 6-2: E&S High-Risk Categorisation

E&S Risk Criteria for High-Risk Category Roads		
E&S Category	Description of Risk	Comments
ENVIRONMENTAL		
Biodiversity (please also refer to detailed section on protected areas (IFC and other standards etc in the SEA Report)	Roads developed within or adjacent (within 1 kilometre of its boundary) to the following types of areas: <ul style="list-style-type: none"> Protected Areas (international, national, regional) Areas of Critical Habitat as defined in IFC PS6 Areas of Natural Habitat as defined in IFC PS6 	Requirements will include (in addition to an ESIA) a CHA and a Biodiversity Action Plan (BAP) and potentially also offset/compensation measures. Engagement with international experts and organisations may be required.
GHGs	Project is likely to produce levels of GHG emissions above the IFC threshold	Detailed inventory of GHG emissions required and mitigation strategy/measures developed will be necessary
Air Pollution	Emissions during construction likely to exceed international and national standards with effects on the environment and human health	Detailed inventory of emissions required, and mitigation strategy/measures developed will be necessary
Noise and Vibration	Significant noise levels and or levels of vibration predicted exceeding international and national standards with effects on human health and physical structures (exceeding World Bank EHS Guidelines and other applicable standards)	Mitigation measures will be required to monitor and reduce noise and vibration levels. Compensation measures will be required to address potential damage and disturbance
Waste Management	Significant levels of toxic and hazardous waste arisings predicted requiring specialised treatment facilities and disposal sites operating to international standards.	Waste inventory required. Waste management Plan required including minimisation measures. Inventory of waste treatment and disposal facilities required with all facilities audited to ensure international standards can be met and capacity to meet project demands. Any requirement for shipments of waste to other countries clearly identified
Hazardous Materials	Significant levels of hazardous materials required with corresponding requirements in terms of storage, handling and disposal including staff training.	Materials inventory in accordance with international classifications and requirements. Identification of treatment and disposal sites and development of a Detailed Hazardous Materials Management Plan.

E&S Risk Criteria for High-Risk Category Roads		
E&S Category	Description of Risk	Comments
Water Resources	Water resources for construction and workforce needs likely to need significant use of existing infrastructure (including community wells) or development of new infrastructure or abstraction points for surface water resources with potential impacts on other water users and the environment.	Project water balance required with details of assumptions concerning the sourcing of water and impacts on other users and the environment and the need for additional boreholes and abstraction points.
Climate Change Risk	Locations in areas of high or moderate potential climate risk as identified in a CCRA or similar	PSD level CCRA required along with project level risk assessment and adaptation measures.
SOCIAL		
Human Rights	Locations in areas with existing human rights concerns or where a major project may give rise to such concerns-as identified in a HRIS	PSD level HRIS required along with project level assessment and mitigation measures. Locations in areas with existing human rights concerns or where a major project may give rise to such concerns-as identified in a HRIS
Physical Resettlement	Permanent and/or temporary physical resettlement required	RAP required
Economic Resettlement	Permanent and/or temporary economic resettlement required	LRP required (within a RAP if there is also physical resettlement)
Indigenous Peoples / minority ethnic groups	Locations in areas with indigenous communities of people as defined within IFC PS7 or equivalent national legislation, or which affect vulnerable minority ethnic groups.	Process of FPIC required should indigenous peoples be defined. N.B. While no groups meeting the IFC PS 7 definition have currently been identified, it is noted that the Diola (Jola) ethnic group, and other nomadic groups do appear to exist in areas affected by the PSD and these groups will require specific engagement processes etc. The ESIA's and RAP/LRPS developed by the Project will engage with these groups to assess any potential impacts on livelihoods, access to natural resources, cultural traditions or other issues
Vulnerable Groups	Locations with large populations of vulnerable people	Developments of measures to reduce vulnerability required.
Utilities and Infrastructure	Locations where significant impacts on existing utilities and infrastructure are likely to occur, including transport deviations, with consequences for affected communities and businesses	Plan for alternative utility and transport solutions required.
Cultural Heritage (Tangible and Intangible)	Locations in areas affecting the following: <ul style="list-style-type: none"> • Internationally or nationally designated sites, buildings and monuments • Sites of significance to communities and belief groups • Areas with landscapes and land uses of cultural significance 	Cultural Heritage Management Plan required. Engagement with international organisations and experts may be required.

E&S Risk Criteria for High-Risk Category Roads		
E&S Category	Description of Risk	Comments
Ecosystem Services	Significant predicted impacts on ecosystem services with potential livelihood and community impacts	Detailed engagement with ecosystem service users/beneficiaries required along with development of detailed mitigation measures
Health and Safety	Locations with significant potential for health and safety impacts on communities	Community health and safety plans required for each community.

6.1.2 Risk Categorisation for Medium Risk Category PSD Project Components

Table 6-3 presents the environmental and social issues of greatest relevance to Medium-Risk projects. These fall within the scope of the SEA of Project Strada and will be used to assess and to categorise the individual roads and road packages within the PSD programme that fall under the management of ASGC.

The results of the categorisation and the application of the E&S risk assessment criteria will be used to develop the ESAP.

TABLE 6-3: E&S Medium-Risk Categorisation

E&S Risk Criteria for Medium-Risk Category Roads		
E&S Category	Description of Risk	Comments/Requirements
ENVIRONMENTAL		
Biodiversity	Roads are developed in the vicinity (<2.5 kilometres) the following types of areas: I. Protected Areas (international, national, regional) II. Areas of Critical Habitat as defined in IFC PS6 Roads are developed in areas of Natural Habitat and Modified Habitat as defined in IFC PS6	Requirements will include (in addition to an ESIA) a BAP and potentially also offset/compensation measures. Engagement with international experts and organisations may be required.
GHGs	Project is not likely to produce levels of GHG emissions above the IFC threshold	Detailed inventory of GHG emissions required and mitigation strategy/measures will be necessary to accommodate any planned reductions
Air Pollution	Emissions do not exceed international standards but still exceed some national standards	Detailed inventory of emissions required, and mitigation strategy/measures developed will be necessary
Noise and Vibration	Noise levels and or levels of vibration predicted do not exceed international standards but are above national standards with effects on human health and physical structures. No severe structural damage is predicted.	Mitigation measures will be required to monitor and reduce noise and vibration levels. Compensation measures will be required to address potential damage and disturbance
Waste Management	Moderate levels of toxic and hazardous waste arisings predicted requiring specialised treatment	Waste inventory required. Waste management Plan required including minimisation measures. Inventory of waste treatment and disposal facilities required with all facilities audited to

E&S Risk Criteria for Medium-Risk Category Roads		
E&S Category	Description of Risk	Comments/Requirements
	facilities and disposal sites operating to international standards.	ensure international standards can be met and capacity to meet project demands. Any requirement for shipments of waste to other countries clearly identified
Hazardous Materials	Moderate levels of hazardous materials required with corresponding requirements in terms of storage, handling and disposal including staff training.	Materials inventory in accordance with international classifications and requirements. Identification of treatment and disposal sites and development of a Detailed Hazardous Materials Management Plan.
Water Resources	Water resources for construction and workforce needs likely to need use of existing infrastructure (including community wells) or development of new infrastructure or use of existing abstraction points from surface water resources.	Project water balance required with details of assumptions concerning the sourcing of water and impacts on other users and the environment and the sustainability of the proposed levels of resource use.
Climate Change Risk	Locations in areas of moderate or low potential climate risk as identified in a CCRA	PSD level CCRA required along with project level risk assessment and adaptation measures.
SOCIAL		
Human Rights	Locations in areas with existing human rights concerns or where a major project may give rise to such concerns-as identified in a HRIS	PSD level HRIS required along with project level assessment and measures.
Physical Resettlement	No permanent physical resettlement required. However, the need for temporary resettlement needs to be assessed.	RAP required if there is temporary resettlement.
Economic Resettlement	No permanent economic resettlement required. However, the need for temporary resettlement needs to be assessed.	LRP required if there is temporary resettlement.
Indigenous Peoples / minority ethnic groups	Road locations do not coincide with areas with resident minority ethnic groups or nomadic groups. Nor do they conflict with land used by pastoralist or nomadic groups.	Evidence of no significant impact N.B: No groups meeting the IFC PS 7 definition, or equivalent national legislation, have currently been identified.
Vulnerable Groups	Locations with moderate populations of vulnerable people	Developments of measures to reduce vulnerability required
Utilities and Infrastructure	Locations where moderate impacts on existing utilities and infrastructure are likely to occur, including short-term transport deviations, with consequences for affected communities and businesses	Plan to manage impacts on utilities and infrastructure required. Impacts already clearly defined and located in national EIA.
Cultural Heritage (Tangible and Intangible)	No significant predicted impacts on Internationally or nationally designated sites, buildings and monuments. No significant impacts on sites of significance to communities and belief	Cultural Heritage impacts and mitigations clearly set out in national EIA or cultural heritage management plan in place addressing mitigations required.

E&S Risk Criteria for Medium-Risk Category Roads		
E&S Category	Description of Risk	Comments/Requirements
	groups or areas with landscapes and land uses of cultural significance.	
Ecosystem Services	Moderate predicted impacts on ecosystem services with potential livelihood and community impacts	Detailed engagement with ecosystem service users/beneficiaries required along with development of detailed mitigation measures
Health and Safety	Locations with moderate potential for health and safety impacts on communities	Locations with significant potential for health and safety impacts on communities

6.1.3 Risk Categorisation for Low-Risk Category PSD Project Components

Table 6-4 presents the environmental and social issues of greatest relevance to Low-Risk projects. These fall within the scope of the SEA of Project Strada and will be used to assess and to categorise the individual roads and road packages within the PSD programme that fall under the management of ASGC.

The results of the categorisation and the application of the E&S risk assessment criteria will be used to develop the ESAP.

TABLE 6-4: E&S Low-Risk Categorisation

E&S Risk Criteria for Low-Risk Category Roads		
E&S Category	Description of Risk	Comments/Requirements
ENVIRONMENTAL		
Biodiversity	Road does not affect protected or designated areas (international or national) and is located in modified habitat.	BAP for management of any features of biodiversity interest and survey prior to construction and monitoring during construction.
GHGs	Project predicted emission levels are beneath the IFC threshold and within international and national levels for all critical GHGs.	Evidence of modelling results to confirm levels of GHG emissions.
Air Pollution	Predicted emissions do not exceed either international or national standards.	Air quality baseline monitoring in place prior to construction and monitoring during construction.
Noise and Vibration	Predicted levels of noise and vibration do not exceed international or national standards.	Baseline monitoring in place prior to construction and monitoring during construction.
Waste Management	No toxic and hazardous waste predicated to be produced.	Waste inventory and waste modelling in place during construction.
Hazardous Materials	Low levels of hazardous materials required with corresponding requirements in terms of storage, handling and disposal including staff training.	Materials inventory in accordance with international classifications and requirements. Identification of treatment and disposal sites and development of a Hazardous Materials Management Plan.
Water Resources	Water resources for construction and workforce likely to need use of existing	Project water balance required with details of assumptions concerning the

E&S Risk Criteria for Low-Risk Category Roads		
E&S Category	Description of Risk	Comments/Requirements
	infrastructure (excluding community wells) or development of new infrastructure or use of existing abstraction points from surface water resources.	sourcing of water and impacts on other users and the environment and the sustainability of the proposed levels of resource use.
Climate Change Risk	Locations in areas of low potential climate risk as identified in a CCRA	PSD level CCRA required along with project level risk assessment and adaptation measures.
SOCIAL		
Human Rights	No existing human rights concerns identified in a HRIS	PSD level HRIS required along with project level assessment and measures.
Physical Resettlement	No permanent or temporary physical resettlement required.	Community Grievance Mechanism for each project to address potential physical resettlement during project construction.
Economic Resettlement	No permanent or temporary economic resettlement required.	Community Grievance Mechanism for each project to address potential economic resettlement and effects on livelihoods during project construction
Indigenous Peoples / minority ethnic groups	No resident minority ethnic groups or nomadic groups.	Community Grievance Mechanism for each project to address potential effects on minority ethnic groups and nomadic and pastoralist groups during project construction, including engagement with potentially affected groups. N.B: No groups meeting the IFC PS 7 definition, or equivalent national legislation, have currently been identified.
Vulnerable Groups	Locations with low populations of vulnerable people	Developments of measures to reduce vulnerability required
Utilities and Infrastructure	Locations where low impacts on existing utilities and infrastructure are likely to occur, including short-term transport deviations, with consequences for affected communities and businesses	Plan to manage impacts on utilities and infrastructure required. Impacts already clearly defined and located in national EIA/environmental approvals process.
Cultural Heritage (Tangible and Intangible)	No predicted impacts on Internationally or nationally designated sites, buildings and monuments. No predicated impacts on sites of significance to communities and belief groups or areas with landscapes and land uses of cultural significance.	Project-level Chance Finds Procedure required.
Ecosystem Services	Low predicted impacts on ecosystem services with negligible potential livelihood and community impacts	Detailed engagement with ecosystem service users/beneficiaries required along with development of detailed mitigation measures to address any feedback on this issue and manage any concerns.
Health and Safety	Locations with low potential for health and safety impacts on communities	Locations with significant potential for health and safety impacts on communities

6.2 Project Package E&S Risk Categorisation

The tables below present the results of the risk categorisation process for the PSD project components. This process took into account both national and international requirements including the criteria of the OECD Common Approaches and the requirements of the IFC Performance Standards.

In the case of the V-D roads, while no site visit has been made, from a detailed review of available imagery it appears that the area involved does not present any significant environmental or social risks. Pending confirmation of whether there will need to be either permanent or temporary resettlement of traders and vendors (often associated with urban development zones and providing goods and services to construction workers), SLR considers these roads to be in the Low-Risk category.

The Dande Mayo Road may share associated facilities with some of the PSD roads. This should be established during the ESIA process for the relevant PSD project components and appropriate mitigation, and management measures identified along with an assessment of any potential cumulative impacts between the specific PSD road section and the Dande Mayo Road.

A photolog of project components visited during the filed visit is presented in Annexe J

TABLE 6-5: Project Components with High E&S Risk Categorisation

Region	ID No.	Section / Communities	Observations
Sedhiou	3	Boudier (Sedhiou Bambali - Djiredji - Djibabouya - Marsassoum) (photos in Annex J)	<ul style="list-style-type: none"> • River crossings and potentially sensitive areas for biodiversity including wetlands etc. • Some tents/stalls will have to be removed (AGEROUTE) • Business activities including fishing (in Sibicourouto) may be halted during works. • Key buildings (schools - some with porous fences and appear too close to the RoW, mosques, water supply wells, Gendarmerie brigade, council building) along the road. • Trees (baobab) of potential significance along the road. • Rice and banana/plantain farms along the road. • Trees including mango & palm trees appear too close to the road. • Grazing areas along the road. • Some homes/walls/electricity poles appear too close to the road. • Access to homes/key buildings may be difficult during works
Kolda	7	Kolda – Salikenie (photos in Annex J)	<ul style="list-style-type: none"> • Potential for migrants in area (vulnerable group) and displacement effects in Kolda. • Some houses/storage facility/walls will be destroyed (AGEROUTE) when widening the road (Dioulacolon, Iliao).

Region	ID No.	Section / Communities	Observations
			<p>In Salikegne, some houses/walls/electricity poles will potentially be destroyed/removed as they appear extremely close to the road and narrowing the road significantly.</p> <ul style="list-style-type: none"> • Some electricity poles will have to be displaced when widening the road (AGEROUTE). • Several business activities (including a commercial motor park) will potentially be halted during works. • Key buildings (hospital/health center, schools-some unfenced, pharmacy, mosque, built market) along the road. • Trees of potential significance along the road. In Salikegne, there is one in the middle of the road. • Livestock grazing and water points along the road
	8	Kolda - Pata	<ul style="list-style-type: none"> • Part of route adjacent to protected areas. Potential displacement effects in Kolda. • Some houses/walls/property will be destroyed when widening the road (AGEROUTE), while some houses/walls appear too close to the road. • Business activities along the road will potentially be halted during works. • Key buildings (schools-some unfenced and too close to the road, council building, pharmacy, mosque, market) along the road. • Tree (baobab) of potential significance along the road. • Road widening will have some trees along the road removed (AGEROUTE) and cassava farms encroached on. • Livestock drinking spots and rice farms along the road. • Access to homes/business premises/key buildings/farms could be difficult during road works.
	10	Mampatim - Pidiro - Sare Dembeyel - Sare Kanta	Route runs adjacent to a protected area
Ziguinchor	12	Boucle du Fogny 1 (Bignona - Sindian - Djibydone)	In a PA, change in road surface. Potential for induced access, collision, barrier effect etc.
	14	Kataba (Cfn5) - Medina Cherif	Adjacent to PA.
	15	Ebinako - Katipeu	In PA and wetland, new road - habitat loss, induced access, collision, barrier etc
	71	Ebinako - Djibidione	<ul style="list-style-type: none"> • Potential impacts on protected areas • Located in Kaalolaal Blouf-Fogny Aire Marine Protégée but road upgrade so impacts may be limited

Region	ID No.	Section / Communities	Observations
Kaolack	18	Kaymor - Sokonrong - Darou Khoudoss Nganda	Extension of the road towards Pthé Thiangaye affects a protected area and wetland and is close to another. Also, in a border area with potential migrant and vulnerable groups issues
	22	Keur Waly Ndiaye - Ndiendieng	Is within a Protected Area. Potential impacts on the PA.
		Nioro-Keur Sountou (photos in Annex J)	<ul style="list-style-type: none"> New road that is still to be traced. Could potentially pass through property, houses may be destroyed, or trees felled, and habitat will be lost. In Nioro, there is a huge waste dump site. This waste would need to be managed and a new dumping site provided to locals
Kaffrine	25	Pathé Thiangaye - Médinatoul Salam - Nganda	Affects protected areas including bisecting one
	85	Kaffrine - Sinthiou Wanar – Nioro (photos in Annex J)	<ul style="list-style-type: none"> Potential displacement issues-especially in Kaffrine and route includes one important wetland. Potential destruction of houses/fences (Dagabal village) as they appear too close to (and narrowing) the RoW. Business activities will potentially be stopped during works. Key buildings (mosques, health unit, water points) along RoW. Several farms and trees, some very close to RoW. Road is used by nomads to move livestock. It contains grazing areas and water points for livestock. A grazer expressed the need to have a path created for them to move their cattle. This would avoid conflicts with farmers. But would be difficult to create. Some homes/walls appear too close to the road. Access to homes/farms/water points/key buildings potentially difficult during works. Electricity poles appear too close to the road
	90	Malem Hodar - Delbi - Darou Miname	<ul style="list-style-type: none"> Route runs adjacent to protected areas
Fatick	29	Toubacouta – Missira (photos in Annex J)	<ul style="list-style-type: none"> Within an area of high biodiversity value. Potential removal of some business tents/stalls. Some business activities (including fishing) will potentially be halted during works. Key buildings (schools, mosque) along RoW.

Region	ID No.	Section / Communities	Observations
			<ul style="list-style-type: none"> • Livestock grazing areas along RoW. • Tree branches extending into RoW. • Electricity poles appear too close to RoW. • Houses/walls appear too close to RoW. • Access to houses/key buildings/fishing area/farms may be difficult during works. • Road is located in Delta de Saloum Ramsar site / Biosphere reserve and the Forest de Fathala (forest reserve). Increased use of the road may lead to increase pressure on Ramsar from water quality and habitat alteration. A bridge in the PA requires upgrading which is likely to need extensive works within the PA.
	31	Toubacouta - Keur Saloum Diane (photos in Annex J)	<ul style="list-style-type: none"> • Need to address potential impacts on protected areas since the road is partially within a forest reserve. • Livestock grazing areas along RoW. • Tree branches extending into RoW. • Houses/walls appear too close to the road. • Electricity poles appear too close to the road. • Access to homes maybe difficult during works. <p>Located in a forest reserve</p>
	32	Djilas - Ngueniene	Need to address potential impacts on protected areas. Djilas is just inside the biosphere reserve
Louga	39	Keur Madiale Fall -Ndeye Satoure - Warene	<ul style="list-style-type: none"> • Warene is just outside Foret de Keur Momar Sarr Forest reserve and also Ndiaël basin Ramsar / IBA. • Habitat loss as new road construction, induced access into Ramsar site and KBA may have significant implications
	88	Louga-Saint Louis	<ul style="list-style-type: none"> • Route runs adjacent PA (Mpal Forest Reserve) • Business activities will potentially be stopped during works around Louga and Saint Louis
Dakar	46	Noflaye - Niakhirate Peul - Sebikotane	Likely displacement effects in a PA with associated habitat loss, induced access, collision risk and barrier effects
Matam	47	Oudalaye - Siwi Yabe (Salalatou)	In PA (Ferlo Sud KBA/wildlife reserve), new road - habitat loss, induced access, collision, barrier etc
	48	Louguere Thioli - Tioukoungal - Bdagor	In Sylo pastoral reserve Lougguere Todji, new road - habitat loss, induced access, collision, barrier etc
	82	Velingara Ferlo - Thiounouh	<ul style="list-style-type: none"> • Part of route adjacent to a protected area (may be within both Ferlo KBA and a nationally protected area).

Region	ID No.	Section / Communities	Observations
			<ul style="list-style-type: none"> • New road will result in habitat loss. • Change in road surface will increase speed - collision risk, induced access
	87	Route du Dandé Mayo SUD	<ul style="list-style-type: none"> • Route runs adjacent to a protected area • Route runs along wetlands along River Senegal
	89	Boke Dialloubé Karawendou - GayeKadar - Ndiayene Djolof - Loumbellana	<ul style="list-style-type: none"> • Route runs through protected areas; Ferlo Nord Wildlife Reserve and Sylvo Pastorale Reserves • New route, may likely lead to loss or destruction of property
Saint Louis	54	Degou Niaye - Mouit	<ul style="list-style-type: none"> • In a protected area. • Access for fishing people to boats and to sell their catch around the coastal area. • In Parc Nationale de Langue de Barbarie coastal and lagoons, sand dunes - wintering and breeding birds and reptiles. • Collision risk with increase speed, induced access to fishing and other activities in sensitive habitats
	61	Ndiassene Ross Bethio	<ul style="list-style-type: none"> • In protected area. • Land take will need understanding of livelihoods. • Located in Ndael basine Ramsar / KBA. • New road will result in habitat loss, increased collision risk and induced access into an area (Ramsar) already under water stress from agriculture
	64	Podor - Guede - Ndioum	<ul style="list-style-type: none"> • Area is environmentally sensitive and includes protected areas. • Located in Forêt de Ndioum Dieri forest reserve and affects wetland habitat. • New road will result in loss of habitat, collision risk and induced access
Kedougou	70	Kedougou - Fongolembi	Likely displacement effects and also issues associated with proximity to border e.g., migrants and vulnerable groups
Thies	74	Mbour – Joal (photos in Annex J)	<ul style="list-style-type: none"> • Affects protected areas. • Crosses some wetlands a classified forest and an ecological reserve. • Some stalls will be removed during works. • Business activities including fishing may be halted temporarily during works. • Key buildings (schools, pharmacy, hotel, cultural center) along the road. • Livestock grazing and water spots areas along the road *Trees appear too close to RoW. • Houses and some key buildings appear too close to RoW with potential difficulties accessing them during works.

Region	ID No.	Section / Communities	Observations
			<ul style="list-style-type: none"> Traffic already busy – traffic jams during closure of one side – increased air pollution in areas likely to be high already. Where one side of road is closed no doubt cars will use hard shoulder which is used in places by people (fruit sellers etc.)
	57	Kandam - Sebikhotane	Located in PA

TABLE 6-6: Project Components with Medium E&S Risk Categorisation

Region	ID No.	Section / Communities	Observations
Kedougou	1	Bandafassi - Dindéfelo	<ul style="list-style-type: none"> Potential impacts on river/watercourse plus construction using asphalt etc Location in Dindéfello Natural Reserve Increased road speed may increase collision risk and induced access
Tambacounda	2	Goudiry - Dougue - Dianke Makha Sadatou	Several settlements traversed with potential for displacement
Sedhiou	4	Cf RN4 Sare Alkaly Bogal - Ndiamekouta	Potential impacts in settlements. Potential presence/influx of migrants
	5	Karantaba - Sare Tening (Boucle Pakao2)	<ul style="list-style-type: none"> Wetland habitats Increased road speeds from change in surface increase barrier effect and collision risk
	6	Sandiniery - Djidinki (Boucle Pakao1)	<ul style="list-style-type: none"> Wetland habitats Increased road speeds from change in surface increase barrier effect and collision risk
Kolda	9	Awataba - Diatafa - Kossanke - Diankankounda	Rating will depend on construction method applied-no details provided by AGEROUTE
	11	Kabendou - Wassadou - Frontiere Guinee	Route is in an area with potential for migrant influx issues/vulnerable groups
Kaolack	16	Lamaramé – Ndiendieng (photos in Annex J)	<ul style="list-style-type: none"> Note this is part of a longer section with potentially higher E&S sensitivities. Business activities (including a commercial motor park) will be halted during works. Livestock grazing and water point areas along the road. Access to some homes/farms potentially difficult during works as farms and some houses/walls appear too close to the road. Electricity poles appear too close to the road

Region	ID No.	Section / Communities	Observations
	17	Firgui - Dabal - Kaymor - Thiesse	<ul style="list-style-type: none"> Wetland habitats and river crossing. Increased road speeds from change in surface increase barrier effect and collision risk
	19	Sibassor - Ndiebel	Change in road surface - collision risk and barrier effect
Kaffrine	23	Kaffrine - Ndioum Guente	Potential impacts on Kaffrine and other settlements
	26	Ribo - Darou Koum Koum	Habitat loss, change in road surface - collision and barrier effect
	27	Delbi - Pafa - Guent Pathe	Habitat loss, change in road surface - collision and barrier effect
Fatick	30	Gossas - Guelou - Nguinguineo	Potential for displacement in settlements including Kaolack
	28	Keur Martin - Diohine - Wakhal Diam (photos in Annex J)	<ul style="list-style-type: none"> Appears to be in an area of relatively low E&S sensitivity. Business activities will potentially be halted during works. Key buildings (health center, mosque, school) along RoW. Trees appear too close to RoW. Houses/walls appear too close to RoW. Access to homes and key buildings may be difficult during works
Louga	33	Bandeigne - Tieppe	Appears to be an area of low environmental sensitivity but habitat loss will occur since this is a new road.
	35	Kab Gueye - Tawa Peulh	Appears to be an area of low environmental sensitivity but habitat loss will occur since this is a new road.
	36	Ndande - Ngagne Diouf Yc Bretelle De Darou Ndiaye	Appears to be an area of low environmental sensitivity but habitat loss will occur since this is a new road.
	38	Mbeuleukhe - Tessekre - Diagle	Is within the Sylvo-Pastorale Reserve and habitat loss will occur along with the change to the road surface and increased collision risk
	40	Track DE NIOMRE	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
Dakar	41	Bambilor - Lac Rose	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
	42	Deni Birame Ndioum Sud - Benoba	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
	43	Keur Ndiaye Lo - Sébi Ponty	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect

Region	ID No.	Section / Communities	Observations
	44	Keur Ndiaye Lo - Cite Almadies li	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
	45	Keur Daouda Sarr - Fass Kounoune Ngalap - Base Militaire - Almadies	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
Saint Louis	66	Raoul Peul - Leona	Traverses several settlements; potential displacement issues
Thies	69	Voirie de Saly	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
	73	Ndiaganiao - Tassette - Guekhokh	May affect protected areas
	65	Pout - Keur Matar Gueye Ndam Cf N8	<ul style="list-style-type: none"> • Appears to be an area of low environmental sensitivity • Business activities in Pout with a significant population density will potentially be halted during works
	76	Dias N1 - Samkedji - Raffo	May affect protected areas
Diourbel	78	Sortie Autoroute Ila Touba - Contournement Mbacké	<ul style="list-style-type: none"> • May involve displacement. • New road will result in some habitat loss
	79	Contournement (Darou Salam Mbacké - Touba)	May involve displacement
Matam	49	Ranerou - Oudalaye	In PA (runs along the edge of Ferlo Sud KBA/wildlife reserve), new road - habitat loss, induced access, collision, barrier etc
	80	RN2 - Boynadji	Not in a PA but new road will result in habitat loss and increased road speed - collisions and barrier effect
	81	Sinthiou Mbal (N2) - Taiba et Pete Niebe Moba Tafsir Balla	In border area so potential issues of migrants and other vulnerable groups. Also, potential resettlement issues
	83	Velingara - Mbem Mbem	Part of route adjacent to a protected area

TABLE 6-7: Project Components with Low E&S Risk Categorisation

Region	ID No.	Section / Communities	Observations
Kaolack	72	Nioro - Taiba Niassene - Keur Madiabel - Drame Escale - Sokone	Appears to be an area of low environmental sensitivity
Kaffrine	24	Biekelane - Mbos - Mbar	Appears to be in an area of relatively low E&S sensitivity
Louga	34	Cf/R3 - Tiamene Pass	Appears to be an area of low environmental sensitivity
	37	Ndiam Fall - Ngoufatt 2	Appears to be an area of low environmental sensitivity
Matam	50	Nabadji - Sedo Sebe - Taiba Thianene	Appears to be an area of low environmental sensitivity

Region	ID No.	Section / Communities	Observations
Thies	51	Pekesse - Diemoul	Appears to be an area of low environmental sensitivity
	52	Mekhe - Pekesse - Thilmakha	Appears to be an area of low environmental sensitivity
	59	Liaison Ngaparou	Appears to be an area of low environmental sensitivity
	53	Boukhou - Packy	Appears to be an area of low environmental sensitivity
	55	Diass - Mbayar	Appears to be an area of low environmental sensitivity
	86	Ndangalma - Fissel	Appears to be an area of low environmental sensitivity
Diourbel	56	Diourbel - Gawane	Appears to be an area of low environmental sensitivity
	58	Keur Nganda - Baba Garage -	Appears to be an area of low environmental sensitivity
	77	Darou Khafor - Missira	Appears to be an area of low environmental sensitivity
	67	Sadio - Guerle - LR Louga	Appears to be an area of low environmental sensitivity
	68	Taif - Sadio	Appears to be an area of low environmental sensitivity
	62	Ndindy - Autoroute Ila Touba	Appears to be an area of low environmental sensitivity
Saint Louis	60	Mbatias Dieye - Leona	Appears to be an area of low environmental sensitivity
Louga	84	Darou Marnane - Darou Mousty Route de Bouchera	Appears to be an area of low environmental sensitivity

TABLE 6-8: Project Components with both High& Medium E&S Risk Categorisations

Region	ID No.	Section / Communities	Observations
Ziguinchor	13	Boucle du Fogy 2 - (Cf Rn5) Barandir - Biti Biti	In the vicinity of a PA
Kaolack	20	Guinguineo - Ngoloum	Habitat loss, change in road surface - collision and barrier effect. Final categorisation will depend on proximity to PA.
	21	Gandiaye - Daoule	Habitat loss, change in road surface - collision and barrier effect. Final categorisation will depend on proximity to PA.
Saint Louis	63	Ngalel - Maka Toube - Gandon Cf/Rn2	<ul style="list-style-type: none"> • May affect protected area - adjacent (and maybe within Ramsar site). • One village- Niebe has very narrow access between houses. This will be surfaced but reduced width, so no relocation and a bypass created to allow trucks etc to pass. • Loss of grazing land for community – need to understand who will be affected and have plans in place.

Region	ID No.	Section / Communities	Observations
			<ul style="list-style-type: none"> Change in road quality may encourage more people to the area and therefore agriculture. Additional stress on Ramsar (water use)

6.3 CESMP

It has been assumed, based on discussions with ASGC, that each contractor will comply with the overall ESMP for construction generated by ASGC (Annexe K). Section/work package specific CESMP's will also be developed based on the ASGC template. The ESMP has been designed to comply with both IFC and national requirements. This will enable ASGC to manage the overall compliance of different contractors working on different work packages or project components in a common fashion with consistent requirements relating to the management and reporting of E&S risks.

The ESMP has been shared with SLR and it reflects IFC requirements at a high-level and would equally form the basis of the ESMP to be developed for the elements of the PSD. The effective adoption of the ESMP by the contractors will need to be assured by ASGC and will require embedding prior to formal contract signature and be accompanied by extensive training to ensure correct application and effective risk management. The Project's HSE training plan can be found in Annexe F. Periodic assessments and audits of contractors' performance will be required as part of the overall ESMS for the PSD.

The table below presents the framework of the CESMP and is attached as an Annexe (Annexe K).

TABLE 6-9: PSD CESMP Framework

1. GENERAL CONDITIONS	<ul style="list-style-type: none"> 1.1 Introduction 1.2 Purpose and Scope 1.3 Codes, Standards and Regulations 1.4 Organisation for Health, Safety, Environment and Social 1.5 Duties and Responsibilities 1.6 E&S Meetings 1.7 Training and Competence 1.8 E&S Documentation 1.9 Performance Monitoring and Reporting
2. HEALTH & SAFETY	<ul style="list-style-type: none"> 2.1 Accidents 2.2 Fire Safety 2.3 Site Logistics 2.4 Traffic Management 2.5 Personal Protective Equipment (PPE) 2.6 Demolition Work 2.7 Excavations 2.8 Work at Height 2.9 Scaffolding 2.10 Lifting Operations 2.11 Personnel and Material Hoists 2.12 Confined Spaces 2.13 Lone Working 2.14 Night and Weekend Work 2.15 Handling of Hazardous Materials

	2.16 Electrical Safety 2.17 Extreme Weather Events 2.18 Exposure to Noise and Vibration 2.19 Drugs and Alcohol-Free Site 2.20 Labour Rights
3. ENVIRONMENT MANAGEMENT	
	3.1 General 3.2 Air Quality 3.3 Soil and Water Conservation 3.4 Public Roads Cleaning 3.5 Cultural Heritage 3.6 Ecologic Impacts (Fauna & Flora) 3.7 Site Reinstatement 3.8 Waste Management 3.9 Climate Change
4. STAKEHOLDER MANAGEMENT	
	4.1 Purpose 4.2 Responsibilities 4.3 Identification and Classification 4.4 Stakeholders' Management 4.5 Communication Strategies 4.6 Recommendations and Grievances 4.7 Monitoring 4.8 Training and Meetings 4.9 Stakeholder Plan Updates
5. APPENDICES	

6.4 Project Package E&S Approvals Process

AGEROUTE's E&S unit will be responsible for managing the E&S approvals process with other relevant government departments and agencies.

6.5 Monitoring and Review

The CESMP contains indicators for monitoring the delivery of projects, reporting templates and review and audit procedures to be followed by Contractors to allow ASGC to meet its reporting requirements to Lenders, the national authorities and other stakeholders. The framework for monitoring and reporting has been included as Annexe N. The framework outlines requirements at Project Component, Tranche and Project level.

In addition to this, AGEROUTE has an Environment and Social Unit placed under its top management, whose mission is to ensure that environmental and social aspects are taken into account in the management of road projects. This unit works with all the technical departments of the agency. During the works, the unit monitors the implementation of agreed environmental measures in relation to the monitoring missions. Regular missions are carried out to ensure the effective implementation of the Environmental and Social Management Plan. Deviations noted on site and the corrective/preventive measures to be applied are sent to companies and inspection missions at the end of these missions. Furthermore, the unit also monitors social actions carried out within the framework of road projects.

Further description of the E&S Unit can be found in Annexe G.

7 Stakeholder Participation and Consultation

7.1 Stakeholder Identification

This section of the SEA Report presents the details of a high level initial stakeholder identification exercise carried out by the SEA team.

7.1.1 National regulations

The Senegalese law on the Environmental Code (Law No. 2001-001) defines the rules and procedures applicable to any project likely to have an impact on the environment. Impacts to be considered include biophysical impacts, social impacts, impacts on health, well-being and human needs, impacts on renewable and non-renewable resources, and likely impacts on displacement.

Public participation in decision-making is listed as a fundamental principle of Senegal's Environmental Code (Article 4). Any project or activity likely to have an impact on the environment must be subject to an impact assessment as part of the authorization or approval process (Title 2 - Chapter 5). Article 48 states that the impact assessment process must aim to avoid and minimize any negative impact and, where appropriate, provide for public participation in the process. Public participation is defined as engagement in the decision-making process and consists of three stages: information, consultation and a public hearing (section 2).

7.1.2 Identification of stakeholders

A stakeholder is a person or organization that can either influence a decision or activity or be influenced or feel influenced by a decision or activity. More specifically, the stakeholders of this project will be the persons directly or indirectly affected by it, the organizations with any interests and/or the ability to influence the project (decentralized territorial collectivities) positively or negatively.

TABLE 7-1: Project Stakeholder Categorisation

Level 1: Regional	<ul style="list-style-type: none"> – Regional governance 1) Regional prefectures 2) Regional town halls 3) Ministry of Infrastructure and Transport 4) Regional Inspection of Water and Forests 5) Regional Directorate of Infrastructure and Transport of the Regions 6) Ministry of Urban Planning 7) Regional Directorate of Regional Urban Planning 8) Regional Directorate of the Cadastre of the Regions 9) Ministry of the Environment 10) Regional DREEC 11) AGEROUTE 12) Regional Inspectorate of Labour and Social Security 13) Other relevant technical services of the State
Level 2: Departmental/communal	<ul style="list-style-type: none"> – Sub-prefectures of the districts crossed by the roads to be built and/or rehabilitated.

	<ul style="list-style-type: none"> – Town halls of municipalities crossed by roads to be built and/or rehabilitated (see mapping of the municipalities concerned)
Level 3: Local	<ul style="list-style-type: none"> – Populations of neighbourhoods crossed by roads to be built and/or rehabilitated. – Populations of villages crossed by roads to be built and/or rehabilitated (see village mapping) – Potential people impacted (permanent and/or temporary displacement) by road works. – Youth and/or women's associations and representatives of other vulnerable groups – Local environmental groups
Level 4: Project	<ul style="list-style-type: none"> – Technical and financial partners – Subcontractors – Employees - labour force – Suppliers

While NGOs are not automatically involved in formal engagement processes, the Project Strada SEP should identify and engage with relevant NGOs for each project component. The Project should also identify and engage with vulnerable groups during both the ESIA and RAP(s) for

7.1.3 Analysis and classification of stakeholders

The classification of the targeted stakeholders will be done according to two criteria: level of influence and level of involvement.

a) Level of involvement:

The five levels of stakeholder involvement are presented as follows:

- **Leader = 1:** the stakeholder is aware of the impact of the project and is actively involved in it
- **Cooperative = 2:** the stakeholder is aware of the impact of the project and provides support
- **Neutral = 3:** the stakeholder is aware of the impact of the project. It does not resist it, but it does not support it either.
- **Refractory = 4:** the stakeholder is aware of the impact of the project but resists change.
- **Uninformed = 5:** the stakeholder is not aware of the project or its impacts.

b) Level of stakeholder influence

- **Very High = 5:** A highly influential stakeholder has significant control over key project decisions.
- **High = 4:** An influential stakeholder can inspire other stakeholders to take action.
- **Average = 3:** A moderately influential stakeholder is often involved in the decision-making process.
- **Low = 2:** A low-influence stakeholder can give their opinion on decisions and express their doubts, but their ideas are not necessarily taken into account.

- **Very low = 1:** A stakeholder with very little influence can get involved in the project whenever they want, but they have no control over decisions.

TABLE 7-2: Level of stakeholder influence

Stakeholders	Level of influence	Level of involvement
Regional governance	4	2
Prefecture of the Regions	4	2
Regional town halls	5	3
Ministry of Infrastructure and Transport	2	2
Regional Inspection of Water and Forests	2	2
Ministry of Urban Planning	3	3
Ministry of the Environment	2	2
Regional Offices of the Ministry of the Environment	4	4
AGERROUTE	4	4
Regional Inspectorate of Labour and Social Security	3	2
Network concessionaires (SENELC, Orange, ONAS, ...)	3	2
Sub-prefecture of the districts crossed by the roads to be built or rehabilitated	5	2
Town halls of municipalities crossed by roads to be built or rehabilitated	5	2
Populations of neighbourhoods/villages crossed by roads to be built or rehabilitated	4	4
People affected by the project (economic displacement, physical displacement)	3	4
Association of young people and women concerned by the project	3	3
Technical and financial partners	5	2
Subcontractors	3	3
Manpower	3	3

7.2 Stakeholder Engagement Activities

. No formal stakeholder engagement was carried out as part of the work for this SEA Report. However, some very limited, informal engagement was carried out during the Field Visit. The general observation from members of the communities encountered during the Field Visit indicated an overwhelming support of the projects in the various communities.

A framework SEP is part of the CESMP that has been prepared by ASGC. This will be used as the basis for project specific SEPs. The framework that ASGC has supplied to SLR is aligned with the Applicable standards.

ASGC, based on the work done to produce the SEA and will use the RPF and SEP to conduct an exercise to identify vulnerable groups potentially affected by the Project. The ESMP, SEP, GRMs and other tools will be used to monitor effects on vulnerable groups. The LRP will contain measures to protect and enhance the livelihoods of vulnerable groups.

7.3 Grievance Mechanism

A Grievance Mechanism for Community Grievances will be included in the PSD SEP and CESMP and each project component or work package will have a bespoke Grievance Mechanism based on that plan. In addition, a Workers Grievance Mechanism will form part of the overall Labour Policy for the PSD and will be prepared by ASGC and provided to all contractors. Grievance management processes will form part of the CESMP under the control of ASGC.

ASGC has provided SLR with an example of a Community Grievance Mechanism and a separate Worker's Grievance Mechanism, these will form the basis for the documents to be prepared for Project Strada and are aligned with the Applicable Standards.

It is also important to note that during works, AGEROUTE's Environment and Social Unit ensures that communication between a project component and the directly impacted population is guaranteed. In doing so, it sets up, in collaboration with the local authorities, a complaints management system which also serves as a tool for taking ownership of the project component. This system, known as the Complaints Management Mechanism, makes it possible to anticipate possible shortcomings of the project component, especially during the work, and to take into account the various concerns of the population.

8 Resettlement Policy Framework (RPF)

As indicated in previous sections of this report, the application of the requirements of IFC PS5 will be required to ensure that affected parties are correctly identified and compensated for any losses to property or livelihoods.

An RPF has already been developed for the PSD, but this is based on national regulations alone and does not fully take into account the current contents of the Plan. It will be necessary to develop an amended RFP to incorporate the Applicable Standards required by Lenders and to address the updated Plan. This will be required prior to construction to inform the RAPs/LRPs which will be needed to carry out the process of acquisition and resettlement that will need to be undertaken and completed prior to construction for each road section/work package.

Anticipated responsibilities relating to resettlement are as follows:

- ASGC - supervise, lead, and review all documentation development to ensure alignment with reference framework (specifically IFC PS5), and monitoring implementation activities -
- Ageroute - developing the required resettlement documentation
- Resettlement Committee formed by relevant government departments and local authorities (perfectures) for implementation of the resettlement activities (i.e. compensation, provision of new land, assistance)
- Ageroute and Resettlement Committee - monitoring following implementation.

A workshop is planned to be conducted pre-signing with regards to confirming roles and responsibilities, and processes/procedures associated with implementation of the Project.

Table 8-1 below identifies potential gaps between national requirements for resettlement and those of IFC PS5 and includes recommendations on how to address these.

TABLE 8-1 ASSESSMENT OF GAPS BETWEEN NATIONAL AND IFC PS5 REQUIREMENTS

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
Indemnification / Compensation			
General principles	Payment of expropriation compensation that covers full compensation for the damage caused by the loss of property.	Compensation in kind or in cash in full addressing the need to meet full replacement costs without taking into account the depreciation of the affected asset.	Carry out an independent study to evaluate the compensation values used by the state against the principle of full replacement of the IFC and the need for additional payments(top-ups) to address any shortfalls or discrepancies.
Calculation of compensation	CROPS: For cases of crop losses following the expropriation of land for public utility, for which the Departmental Commission for Census and Evaluation of Expenses (CDREI) set up for the purposes of	<u>For crops:</u> price based on age, species, price in high season. Tree crops/timber trees are also compensated for based on age, crop value/timber value etc <u>For buildings:</u> rate based on the cost of materials and labour on the local market	Carry out an inventory of assets to ensure that all eligible properties under PSP5 are recognized. This should involve community engagement. Compensation should be in line with current market values. Top-up payments to adjust/increase nationally applied values may be required.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	<p>the project, will be responsible for assessing agricultural losses based on the speculative prices of the various agricultural products at the level of local markets and on national scales.</p> <p>CONSTRUCTION: In urban areas, the provisions of Article 38 of Decree 64-673 may be applied taking into account the land scale set by Decree No. 2010-439 of 6 April 2010</p>	<p><u>For land:</u> compensation in kind in the form of equivalent land, or compensation based on market value, miscellaneous costs/registrations, production capacity, locations, investments and other benefits similar to the land acquired for the project.</p>	

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	<p>repealing and replacing Decree No. 88-74 of 18 January 1988 which sets the price scale for rents for bare land and built-up land, This scale will also serve as a reference for calculating the compensation to the original occupants, the expropriation of their land in the public interest.</p> <p>LAND: Acquisition of land in accordance with the texts regulating expropriation in the public interest, with compensation</p>		

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	<p>fixed by the administration , by the expropriation judge, if necessary, as part of the "purge" of customary rights. Unforeseen prices are subject to amicable evaluation between the parties. Loss of income: in the context of expropriation in the public interest is not provided for in Senegalese legislation.</p>		
Assistance for the resettlement of affected persons	It is unclear to what extent such assistance is	In addition to the removal allowance, those affected by the	Follow the requirements of PS 5, specifically the establishment of support measures for the restoration of livelihoods and assistance for PAPs.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	provided under national law-if any.	project should receive assistance during resettlement and follow-up support/assistance after resettlement.	
Eligibility			
General	Senegalese law (the Ivorian Constitution) provides for the payment of compensation for expropriation that covers full compensation for damage caused by the loss of property.	Any person physically or economically displaced as a result of the acquisition of project-related land is entitled to compensation (paragraph 9), including all rights holders – "squatters" and/or other informal beneficiaries. Tenants are included.	All real estate is eligible for compensation. Compensation may be in cash or in kind but must be in line with the principle of total replacement value. Compensation is paid to the person or persons with ownership rights.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
Definition of Persons Affected by the Project (PAP)	The IFC has broadly the same definition of PAP as that contained in Senegalese legislation (Cf. Glossary of the IFC Handbook).	The IFC has broadly the same definition of PAP as that contained in Senegalese legislation (Cf. Glossary of the IFC Handbook).	Definitions are consistent, but application differs with respect to informal rights holders and land users; Steps need to be taken in defining eligibility to ensure alignment.
Customary landowners	May be eligible under the customary rights "purge".	These persons are eligible for compensation.	Provision should be made for customary landowners.
Owners with land title	Eligible for compensation	Eligible for compensation	The requirements are aligned.
Informal occupants /tenants	Not eligible	Requirements: - Compensation for affected structures and crops - Resettlement assistance	An inventory of assets, a socio-economic study and a census to identify all eligible persons/family members.
Vulnerable groups	No specific provision in the legislation	Special attention is paid to those living below the	An inventory of assets, a socio-economic study and a census to identify all vulnerable entities prior to the Project. Support for livelihood restoration.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		poverty line, landless people, the elderly, women and children, ethnic minorities and indigenous peoples. Requirements: - Identification of the pre-existing vulnerability. - Follow-up for the identification of the vulnerability induced by the project. - Assistance for vulnerable people and families.	Monitoring and evaluation to identify the vulnerability induced by the Project and provision of additional support if necessary.
Women	No specific provision in the legislation	Requirements: - Collection of sex-disaggregated data - Special measures to facilitate informed	Implement resettlement in a way that avoids the risk of disproportionate impacts on women and engages directly with them. Payment of compensation to the person with property rights, regardless of sex. In the case of physical displacement and replacement housing, the names of both men and women are included on the title documents.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		<p>participation and avoid the risk of disproportionate impacts</p> <ul style="list-style-type: none"> - Payment of compensation to the person with property rights, regardless of gender. <p>In the case of physical displacement and replacement housing, the names of of both men and women are included on the title documents.</p>	
Procedures			
Payment of compensation	In principle, prior to the occupation of land in accordance with the principles	Mandatory before the project commences construction or displacement occurs.	Cash compensation before access to land, unless payments are used, in which case first payment before access to land. Launch of the restoration of livelihoods before access to land by the Project.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	<p>enshrined in the legislation ("fair and prior compensation"). In practice, compensation can also be paid in successive instalments, of which only the first is paid before the arrival of the project on the land.</p>		
Form/nature of compensation	<p>It is unclear from the legislation, but replacement housing and land can be provided. For land alone or for livelihoods it appears that cash compensation is the norm.</p>	<p>Leave the choice to PAPs but priority should be given to compensation in kind rather than cash, especially for land.</p>	<p>An independent study to assess the replacement (in full) values used by the state against the principle of full replacement of the IFC and additional payments to fill the gaps. In-kind programmes/measures to restore the livelihoods of impacted PAPs.</p>

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
Complaints/Grievances	Law 76-67 of 2/7/1976 on expropriation calls for the amicable settlement of complaints and authorizes holders of land with title deeds to have recourse to the courts in the event of a conflict.	Those affected must have easy access to a complaints/grievance mechanism. The mechanism must be accessible to women, vulnerable persons, and must have the capacity to deal with sensitive complaints.	https://www.ifc.org/wps/wcm/connect/1e7c35df-4828-4e49-bd9b-6a80063232bb/IFC_StakeholderEngagement_French.pdf?MOD=AJPERES&CVID=igeEXQE <p>Development and implementation of a grievance mechanism with features that include, but are not limited to: accessible to women, vulnerable people, and must have the ability to handle complaints that are sensitive, secure and accountable to the project and the community. Details of the grievance mechanism requirements for IFC-aligned projects can be found here: "Dialogue with Stakeholders: The Handbook of Good Practices for Companies Doing Business in Developing Markets"</p>
Consultation/Engagement	The law provides for the organization of commodo and incommodo inquiries and public consultation (cf. Expropriation Act and the	The relevant information must be disclosed; Consultation with affected people, including host communities, must be done from the beginning of the project and continue during the development	Development of a Stakeholder Engagement Plan addressing the resettlement process. Disclosure of the Plan and methods of engagement to PAPs

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	Environmental Code and its implementing decrees).	<p>of the project. Special attention must also be paid to women. The consultation process must allow women to make their views known and ensure that their interests are taken into account in all aspects of resettlement planning and implementation.</p> <p>The assessment of impacts on living conditions may require an analysis within households if these impacts are not the same for women and men. The preferences of men and women will need to be examined,</p>	

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		in terms of compensation mechanisms, for example, compensation in kind rather than in cash.	
Eligibility deadline/Cut-off date	While timelines are provided within the national legislation these do not appear to have the same function as a cut-off date and relate more to process timelines.	In the absence of procedures established by the Host State, the client will set an eligibility date. Information on the deadline will be well documented and disseminated throughout the project area. The Project is not obliged to compensate or assist persons who encroach on the project area after the eligibility deadline, provided that the	Set an eligibility deadline at the start of the asset inventory and disclose it to potential PAPS. Carry out a socio-economic study and a census to identify all eligible persons.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		deadline has been clearly established and disclosed to all potentially affected parties.	
Monitoring and evaluation of resettlement	Resettlement monitoring and evaluation is not provided for by law.	Monitoring and evaluation should be ongoing during and after resettlement. The implementation of a resettlement plan will be considered complete when the negative effects of resettlement have been corrected in a manner consistent with the objectives set out in the Plan as well as the objectives of IFC PS5. Depending on the size and/or	Develop and implement a monitoring and evaluation plan (including indicators and engagement with displaced PAPs) that addresses all impacts and mitigations of the project, including displacement.

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		<p>complexity of the physical or economic movement of a project, the Project may need to have an external audit of the Resettlement Action Plan conducted to determine if the requirements have been met.</p>	
Human rights	<p>The constitution and the laws of the republic adhere to freedom as defined in the Declaration of Human Rights of 1948 and the African Charter on Human and Peoples' Rights of 1981. The principle is</p>	<p>Companies or projects engaged in economic activities must respect human rights, i.e. avoid infringing on the rights of others and address adverse human rights impacts that their activities may have caused or promoted. Each of the PSs has</p>	<p>Although there is no indication of a high risk associated with human rights, the resettlement process should be aware of the human rights issues highlighted in the SEA(HRIS) and any component specific HRIS and the requirements of the CESMP.</p>

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
	<p>that “No one shall be deprived of his property except in the public interest and subject to fair and prior compensation.”</p>	<p>elements relating to aspects of human rights that a project may face in the course of its operations. Entities engaged in economic activities must respect human rights, i.e. avoid infringing on the rights of others and address adverse human rights impacts that their activities may have caused or promoted. Each of the PSs has elements relating to aspects of human rights that a project may face in the course of its operations. In specific high-risk cases, it may be desirable for the client to</p>	

Theme	Senegalese legislation	IFC Performance Standards	Recommendations
		complete its process of identifying environmental and social risks and impacts with a human rights-based due diligence in light of the activities pursued.	

To align with the Applicable Standards the updated RPF will need to comprise the following:

8.1 Project Description

This should contain the following information.

- A detailed Project Description including up to date mapping and supporting imagery.
- Details of the Right of Way
- A detailed Schedule of activities
- Design details for each type of construction and rehabilitation envisaged within the PSD including details of any temporary construction facilities required and their dimensions/footprint.
- A description of the components of the projects in accordance with Applicable Standards' requirements as detailed in the ESIA(s)
- Details of the process for service and utility relocations (permanent or temporary)
- Details of traffic deviations required or of the process for negotiating traffic deviations.
- Details of the materials required by the Plan and the locations of quarries, borrow pits and sand extraction sites (including mapping and imagery) and the process of site selection.
- A detailed description of project activities from pre-construction up to commissioning
- Water requirements for construction (including workforce use) including abstraction methods and locations.
- Workforce management including details of the numbers of workers required (local and expatriate) and skill levels needed.
- Traffic and vehicle requirements including numbers and types of vehicles.
- Emissions, wastes and discharges related with pre-construction and construction including GHGs- these should be based on the assessment within the ESIA(s).

Description of the Socio-Economic Environment

This should contain the following information drawn from the ESIA(s) and ESMP(s).

- Administrative overview
- Demography for the PSD as a whole and for each project component area
- Land ownership and planning characteristics
- Housing types
- Services including domestic water supply, domestic waste management and utilities
- Education infrastructure and levels of provision
- Characteristics of the local economy and economic activities
- Healthcare infrastructure and levels of provision

- Educational facilities and levels of provision
- Details of the traffic and transport infrastructure system including traffic levels in areas affected by the Plan
- Cultural heritage sites in the areas affected by the Plan including both tangible and intangible heritage
- Characteristics of the populations affected by the Plan including the presence of any indigenous or vulnerable groups

8.2 Legal and Institutional Framework

This section of the RPF should present details of the national legal framework regarding land acquisition, compensation and resettlement and the Applicable Standards relating to land acquisition, compensation, and resettlement. It should include a gap analysis comparing the two sets of requirements, the nature of the gaps and clear recommendations as to which requirements should be applied. This should build on the information provided in this SEA.

The RPF should also provide a clear implementation framework identifying responsible government departments and agencies building on national requirements and taking into account the requirements of the Applicable Standards.

8.3 Stakeholder Engagement

Based on the approach to stakeholder engagement set out in the SEP for the Plan, the RPF should include a detailed description of how engagement and disclosure will be carried out during the resettlement process, the means of engagement, responsibilities for engagement, categories of stakeholders etc. It will also include details of the process to be undertaken of engagement on the Draft RPF. It should also contain a listing of completed and planned engagement events associated with the RPF.

The RPF also needs to stipulate how grievances will be managed and clearly state how grievances specifically relating to resettlement and compensation will be dealt with.

8.4 Eligibility Framework

The RPF needs to include a section that clearly sets out the eligibility criteria and entitlements that will apply to land acquisition, compensation and resettlement for Project Strada. Eligible Persons, for the purposes of Project Strada, includes any individual, household, groups of persons, organisation or legal entity that has a legal right to claim resettlement and livelihood restoration assistance for losses incurred as a direct result of the implementation of the Plan.

The RPF should describe the national system for valuing impacts on property and livelihoods and the values per unit for all key categories of impact associated with Project Strada. The source of the prices applied in the national system and the dates when these were calculated should also be provided. The need for “top up” payments should also be assessed in the RPF. These payments relate to the need to address changes in the market values of property, goods and services and the need to include categories of compensation not included in national regulations but required by the Applicable Standards.

A table of proposed eligibility criteria and entitlements should be included in the RPF. It should also include a description of the measures to be taken to support vulnerable persons affected by resettlement (economic and/or physical) as required by the Applicable Standards. It should be noted that such people may not be eligible for specific additional compensation under national regulations, however they are eligible under the Applicable Standards. Vulnerable persons are defined as people who by virtue of their gender, age, social or economic status may be more adversely affected by resettlement and economic displacement than others and may be limited in their ability to take advantage of livelihood restoration options and associated assistance and benefits. The following categories of vulnerable people should be included:

- Children in difficulty
- Children in situations of ill-treatment (forced labour, sexual abuse)
- Discrimination at work
- Discrimination in the field of health
- Gender discrimination
- People with disabilities
- Gender-based discrimination
- The elderly

8.5 Resettlement and Livelihoods Planning

The RAPs/LRPs to be developed for Project Strada will need to incorporate detailed implementation plans which are aligned with the Applicable Standards. They will need to contain the procedural steps required for the correct implementation of physical and economic resettlement processes. RAPs and LRPs will need to be aligned with IFC Performance Standard 5 and associated guidance.

The RPF will need to provide details of all aspects of the RAP/LRP process to be followed for Project Strada as agreed between ASGC, AGEROUTE and the Lenders.

8.6 Implementation and Implementation Planning

The RPF will need to provide detailed information on the organisations involved in the RAP and LRP processes and their roles and responsibilities. These organisations will include national authorities and agencies (including AGEROUTE), ASGC, Contractors, NGOs (if applicable) and communities and individuals. In addition, this section of the RPF should provide details of each step in the implementation process and the exact roles and responsibilities for delivery. It should also describe the composition and duties of the Resettlement Implementation Team (RIT).

8.7 Monitoring and Evaluation

The RPF should describe the process of internal and external modelling that will be put in place for the RAPs/LRPs. This should include a process of periodic external compliance reviews carried out by an external body (NGO, consultancy etc). It should also describe the process to be adopted for the Completion Audits.

Monitoring indicators should also be included in the RPF.

8.8 Indicative Budget

The RPF should include an indicative budget for the implementation of the RAPs/LRPs including both direct and indirect expenditure.

9 Climate Change Risk Assessment

9.1 Introduction

A Climate Change Risk Assessment (CCRA) is a key element of the Applicable Standards for Project Strada. Equator Principles IV provides clear guidance on the scope and contents of such an assessment. In the context of this SEA, a high-level assessment of climate risk has been carried out to inform the work which will need to be carried out once the Programme for Project Strada has been developed in detail. The overall objective of the CCRA is to evaluate the extent to which the project component locations within Project Strada are exposed to different climate hazards. This will assist the ESIA's to be produced for individual elements of Project Strada to determine the potential effects of climate hazards on specific project components and assist in the development of resilience and adaptation measures as part of the overall bespoke mitigation strategy for each element of the Plan.

The CCRA approach set out in this SEA is designed to align to international standards. The purpose of the CCRA is to identify and describe the potential impacts of climate change on the Plan. This CCRA is not an exploration of the impacts of the project on climate change (e.g., via project-related emissions). The environmental and climate-related impacts of the project will be detailed in the ESIA's for individual elements of the Plan to be produced to meet national and lender requirements.

The alignment of this CCRA methodology to international standards is summarised in **TABLE 9-1**. Alignment is made to the Equator Principles, the International Finance Corporation (IFC) Performance Standards, and the IFC and World Bank Group (WBG) Environmental, Health and Safety Guidelines. In addition to the international standards, the CCRA methodology adopts guidelines from the Intergovernmental Panel on Climate Change (IPCC) for risk determination, the Task Force on Climate-related Financial Disclosures (TCFD) for risk categorisation, and the EU Financing a Sustainable European Economy Taxonomy (EU Taxonomy) for physical climate-related hazard screening.

TABLE 9-1: Alignment of CCRA Methodology for Project Strada to International Standards

International Standards Requirements	Equator Principles	IFC PS	IFC/WBG EHS Guidelines	CCRA Alignment
Adoption of policy	✓	✓	✓	✓
Involvement of climate professionals			✓	✓
Project categorisation based on potential impact	Category A	n/a	n/a	✓
Use of available climate-related information	✓			✓
Climate change risk and impact assessment (including current and anticipated risks)	✓	✓	✓	✓
TCFD alignment (risk categories)	✓			✓
Understanding of likelihood and magnitude			✓	✓
Inclusion of supply chain risks		✓		✓
Assessment of existing or planned climate risk mitigation and adaptation measures	✓	✓		n/a

International Standards Requirements	Equator Principles	IFC PS	IFC/WBG EHS Guidelines	CCRA Alignment
Description of climate risk mitigation, adaptation, and management measures and opportunities		✓		✓
Prioritisation of response measures			✓	✓
Identification of emergency response requirements		✓		✓

9.2 Methodology and Data Sources

The vulnerability of the PSD to climate change needs to be assessed using the following approach:

- Describing historical climate and hazard conditions in the districts of interest in Senegal.
- Developing climate projections in the districts of interest to inform the risk assessment.
- Assessing current and anticipated climate risks to the PSD
- Proposing high-level adaptation and mitigation methods at national and district level.

9.3 Historical Climate data

Senegal's climate is largely influenced by the proximity to the Atlantic Ocean coast and latitude. Mean annual temperatures range from 25 °C to 30 °C with lower values closer to the coast and higher values further inland. Annual precipitation sums range from 250 mm in northern Senegal, which has an arid desert climate, to 1 450 mm in the south-western part of the country, which is characterised by a more tropical climate. Senegal has a single rainy season (unimodal precipitation regime) from April to November in the southern part of the country, with decreasing length and precipitation amounts towards the north.

In common with many other countries, Senegal has been experiencing changing climatic trends, and this has accelerated over recent years. Both rainfall and temperatures have shown a tendency towards increasing bringing economic and social disadvantages. The road network has also been affected by these changes in climate which have accelerated rates of damage and disrepair.

9.4 Climate Projections

9.4.1 Temperature

In response to increasing greenhouse gas (GHG) concentrations, air temperature over Senegal is projected to rise by 1.8 to 3.6 °C (very likely range) by 2080 relative to the year 1876, depending on the most significant GHG emissions scenarios. Compared to pre-industrial levels, median climate model temperature increases over Senegal amount to approximately 1.7 °C in 2030, 2.1 °C in 2050 and 2.2 °C in 2080 under the low emissions scenario. Under the medium/high emissions scenario, median climate model temperature increases amount to 1.8 °C in 2030, 2.2 °C in 2050 and 3.3 °C in 2080.

9.4.2 Very Hot Days

In line with rising mean annual temperatures, the annual number of very hot days (days with daily maximum temperature above 35 °C) is projected to rise substantially and with high certainty, in particular over western and southern Senegal. Under the medium/high emissions scenario, the multi-model median, averaged over the whole country, projects 31 more very hot days per year in 2030 than in 2000, 47 more in 2050 and 82 more in 2080. In some parts, especially in north-eastern Senegal, where the number of very hot days is already high today, this could amount to a total of up to 336 very hot days per year by 2080.

9.4.3 Sea Level Rise

In response to globally increasing temperatures, the sea level off the coast of Senegal is projected to rise. Until 2050, very similar sea levels are projected under both emissions scenarios. Under the medium/high emissions scenario and compared to year 2000 levels, the median climate model projects a sea level rise by 11 cm in 2030, 20 cm in 2050, and 38 cm in 2080. This threatens Senegal's coastal communities and may cause saline intrusion in coastal waterways and groundwater reservoirs. It is also highly likely to affect roads and other infrastructure in coastal areas including in cities.

9.4.4 Precipitation

Future projections of precipitation are less certain than projections of temperature change due to high natural year-to-year variability. Out of the four climate models used by global organisations to analyse trends in precipitation, three models project a decrease in mean annual precipitation over Senegal and one model projects an increase. Median model projections show a precipitation decrease of 105 mm towards 2065, with a subsequent increase and an overall decrease of 53 mm by 2080, compared to the year 2000. Under a low emissions model, median model projections show an increasing trend towards 2028, after which precipitation levels start to decrease, reaching an eventual decrease of 33 mm at the end of the century and compared to the year 2000. Higher greenhouse gas emissions suggest an overall drier future for Senegal. These changes in precipitation have clear implications for the road network.

9.4.5 Heavy Precipitation Events

In response to global warming, heavy precipitation events are expected to become more intense in many parts of the world due to the increased water vapour holding capacity of a warmer atmosphere. At the same time, the number of days with heavy precipitation events is expected to increase. This tendency is only partly reflected in climate projections for Senegal. While the median shows little change in the number of heavy precipitation days for either emissions scenario, the very likely range widens from 6.1–8.8 days in 2000 to 4.0–10.7 days in 2080, indicating different possible, although uncertain trends under the high emissions scenario. This has clear implications for potential impacts on infrastructure.

9.4.6 Soil Moisture

Soil moisture is an important indicator for drought conditions. In addition to soil parameters and management, it depends on both precipitation and evapotranspiration and therefore also on temperature, as higher temperatures translate to higher potential evapotranspiration. Projections for annual mean soil moisture for a soil depth of up to 1-metre show no change under a low emissions scenario and a decrease of

4.4 % under a high/medium emissions scenario by 2080 compared to the year 2000. However, some models are reporting a much stronger decrease in soil moisture. Changes in soil moisture could affect roads.

9.4.7 Potential Evapotranspiration

Potential evapotranspiration is the amount of water that would be evaporated and transpired if sufficient water was available at and below land surface. Since warmer air can hold more water vapour, it is expected that global warming will increase potential evapotranspiration in most regions of the world. In line with this expectation, hydrological projections for Senegal indicate a stronger rise of potential evapotranspiration under the high/medium emissions scenario than under the lower one. Under the higher/medium scenario, potential evapotranspiration is projected to increase by 2.3 % in 2030, 3.2 % and 7.3 % in 2080 compared to year 2000 levels.

9.5 Risks Arising from Climate Change

Climate modelling and predictions have potentially significant implications for natural resources and the economy in Senegal. Some of the most significant potential pressures are presented below.

9.5.1 Water resources

Current projections of water availability in Senegal display high uncertainty under most GHG emissions scenarios. Assuming a constant population level, multi-model median projections show a decrease from 3 548 m³ in per capita water availability in the year 2000 to 2 898 m³ under low emissions scenarios and 2 092 m³ under high/medium scenarios by the end of the century. When taking into account growth according to SSP2 projections, per capita water availability for Senegal is projected to decline more dramatically under scenarios. It will reach 943 m³ under the low scenario and 681 m³ under the high/medium scenario until the end of the century, both of which is below the threshold for water stress (1 700 m³) and water scarcity (1 000 m³).

While this decline is primarily driven by population growth rather than climate change, it highlights the urgency to invest in water saving measures and technologies for future water consumption after 2025., Water saving measures are likely to become important for Senegal's rapidly growing population. Senegal is relatively abundant in surface water resources, due to the Senegal, Gambia and Kayanga rivers and associated basins with an estimated renewable per capita water availability of 4 700 m³, which nevertheless has been steadily decreasing since the 2000s.

River runoff depends on climatic and related evapotranspiration conditions: While the Gambia River flows more or less perennially, the Senegal River experiences high seasonal variability in river runoff. Such variability can cause severe drought conditions in the dry season when water demand is highest as well as extreme flooding in the rainy season, with little national capacity to store or redirect excess water.

9.5.2 Agriculture

Smallholder farmers in Senegal are increasingly challenged by the uncertainty and variability of weather caused by climate change. Since crops are predominantly rainfed, yields highly depend on water availability from precipitation and are prone to drought. However, both the length and the intensity of the rainy season

are becoming more and more unpredictable, and the availability and use of irrigation facilities remains limited: Currently, only 2.1 % of the total national crop land and 17 % of the estimated irrigation potential of 409 000 ha are equipped for irrigation and actually irrigated. Constraints to the implementation of adaptation strategies usually include limited access to financing and credit, productive resources and technical advice as well as tenure insecurity. The main irrigated crop, especially for more commercial production, is rice, which is often intercropped with maize and sorghum. Among smallholder subsistence farmers, irrigated vegetables are more common and dominated by onion and tomato. Currently, the high uncertainty of projections regarding water availability translates into high uncertainty of drought projections.

Overall, adaptation strategies such as switching to improved varieties in climate change-sensitive crops need to be considered, yet should be carefully weighed against adverse outcomes, such as a resulting decline of agro-biodiversity and loss of local crop types.

9.5.3 Infrastructure

Climate change is expected to significantly affect Senegal's infrastructure through extreme weather events. High precipitation amounts can lead to the flooding of roads, while high temperatures can cause roads, bridges and coastal infrastructures to develop cracks and degrade more quickly. This will require earlier replacement and lead to higher maintenance and replacement costs. The poorly developed railway network increases Senegal's reliance on road transportation []. Senegal's roads, however, are in a relatively poor condition, largely due to lack of investment and overload of major regional corridors. Furthermore, Senegal's road network is characterised by an asymmetry in coverage between the coastal areas and inland areas, with a much higher connectivity in coastal areas. Especially during the rainy season, many of the inland rural roads are inaccessible, cutting off villages and communities. Investments will have to be made to build climate-resilient road networks.

Although floods are a yearly occurrence in Senegal, the 2020 rainy season brought much more precipitation than is usually received, causing severe floods almost all over Senegal, particularly in the Dakar and Thiès regions []. Almost 17 000 people were affected in these regions, with thousands homeless and damages to infrastructure and settlements, some of which were left enclaved, due to waterlogged streets and washed-out bridges.

Despite the risk of infrastructure damage being likely to increase due to climate change, precise predictions of the location and the extent of exposure are difficult to make. For example, projections of river flood events are subject to substantial modelling uncertainty, largely due to the uncertainty of future projections of precipitation amounts and their spatial distribution, affecting flood occurrence. In the case of Senegal, median projections show little change in national road exposure to river floods. In the year 2000, 0.68 % of major roads were exposed to river floods at least once a year. By 2080, this value is projected to increase to 0.97 % under high/medium scenarios and to 0.50 % under low emissions scenarios. The exposure of urban land area to river floods is projected to change only slightly under both scenarios

9.6 Implications of Climate Change for Project Strada

Based on available data and predictions, it is clear that climate resilience should be a core element in the design of roads and in construction for Project Strada. Consideration should also be given to Operations and

Maintenance requirements. This will need to be planned and managed by AGEROUTE. Each work package should have its climate resilience examined prior to construction.

10 Human Rights Impact Screening (HRIS)

10.1 Introduction

The SEA high-level has undertaken a Human Rights Impacts Screening to assist with identifying, understanding, and addressing any significant human rights or social supply chain risks related to the Project. The screening was performed against the IFC Performance Standards, and Equator Principles IV utilizing a variety of resources including the EP IV Guidance on assessment of human rights impacts, UN Guiding Principles on Business and Human Rights (UNGPs) and International Labour Organisation (ILO) standards.

This Human Rights Assessment focuses on six main areas 1) Labour and working conditions (e.g. risk that workers may be treated unfairly); 2) Civil and political rights (e.g. not allowing workers to express their opinions freely, or unfairly punishing them for doing so); 3) Economic, social and cultural rights (e.g. failure to implement appropriate health and safety standards leads to long-term negative impacts on workers' health); 4) Heightened risk of vulnerability (e.g. company policy discriminates against women on the basis of their marital or reproductive status) 5) Supply chain and 6) Use of Security Forces (impacts on individuals and communities rights arising from interactions with security staff). These topics are those most often associated with triggering human rights impacts on linear infrastructure projects.

This assessment is a voluntary process is complementary to the environmental and social risk and impact identification process and the development of company plans and policies (such as the ESMS and ESMP for construction and operation) and is focused on ensuring that the Project does not violate the human rights of local communities, vulnerable groups, staff and contractors. The Human Rights Assessment process also allows ASGC to ensure there is a system in place to proactively monitor potential issues and concerns throughout the Project's lifecycle.

The Project has no significant socio-economic or human rights triggers which would necessitate a full Human Rights Impact Assessment. However, it is good international industry practice to undertake a voluntary Human Rights Impacts Screening Assessment, and this aligns the Project with Lender's requirements. The assessment also feeds into the development of policies and plans that will minimise the risk of triggering human rights impacts.

According to UN Guiding Principles on Business and Human Rights, companies should respect human rights and seek to prevent or mitigate potential human rights issues that may be caused directly by a Company's project operations, or by project partners and suppliers. The UN Guiding Principles, the Equator Principles and the IFC Performance Standards and other ILO standards are the benchmark for guiding companies in ensuring respect for human rights.

The goals of this Human Rights Assessment are to:

- Identify, account for, and recommend mitigations (where possible) for actual or potential human rights impacts
- Identify policies and processes to manage human rights issues
- Confirm commitment to respect human rights through a policy endorsed by senior leadership
- Confirm communication takes place with stakeholders about how issues will be addressed

- Confirm a community feedback mechanism is in place to address issues raised by the community

Project and company-related documentation has been reviewed to determine potential Project-related human rights impacts and methods for mitigating and responding to these. In addition, SLR has examined available sources of information concerning potential human rights issues in Senegal.

ASGC is committed to ongoing stakeholder engagement which will include engagement with communities and vulnerable groups as well as civil society organisations. The project will have a Stakeholder Engagement Report to help structure engagement during construction which will include a Community Grievance Mechanism. An employee and contractor Grievance Mechanism will also be produced. Engagement will focus on a few key areas that are most pertinent to the local context and infrastructure projects more generally. These include:

- Workforce health and safety, particularly during the construction phase
- Workforce community interactions
- Equal opportunities with regards to employment
- Labour and working conditions (including the supply chain)
- Environmental and social impact on communities, including noise, waste, and other forms of pollution, both during and after construction
- Deployment of security services

10.2 Human Rights Screening Assessment

This Human Rights screening identifies gaps in Project policies, procedures, and management plans that if not addressed could have potential adverse human rights impacts to workers and/or community members.

Human rights risks may change over time as the Project evolves and the context in Senegal changes, therefore, it is an iterative process whereby business operations and operating context should be examined on a regular basis, especially once the Project moves forward.

In preparing a Human Rights Screening Assessment companies should consider the human rights situation in the country or region in which they operate and seek to identify areas where they may risk involvement in human rights violations. Understanding the national or regional context is an important first step in the Human Rights Screening process. This is based on secondary data.

In the case of ASGC's proposed role in delivering Project Strada in alignment with the Applicable Standards, this assessment has focused on the national level due to a lack of regional and local data given the national scale of the Programme of projects.

According to the U.S. Department of State's 2020 and 2021 Human Rights Reports for Senegal (an ILO member state), the most significant human rights-related problems in the country were as follows:

- Unlawful or arbitrary killings by security force members;
- Cruel, inhuman, or degrading treatment by the government;
- Harsh and life-threatening conditions in prisons and detention centres;

- Arbitrary detention;
- Political prisoners;
- Arbitrary or unlawful interference with privacy;
- Restrictions on free expression and the internet, including threats of violence, and the existence of criminal libel laws;
- Interference with freedoms of peaceful assembly and association;
- Lack of investigation of and accountability for violence against women;
- Criminalisation of consensual same-sex sexual conduct;
- Limited steps by government to investigate human rights abuses;
- Violence against women;
- Abuse of women and children;
- Abuse of persons with disabilities;
- Child labour;
- Poor safety and working conditions for workers;
- Lack of contracts for workers;
- Limitations on worker's representation and union membership;
- Threats against lesbian, gay, bisexual, transgender, and intersex (LGBTI) persons; and
- Forced and child labour (including trafficking)

Brief details on each of these issues as they relate to Senegal are provided below.

Respect for the Integrity of the Person

The US Department of State's Reports noted a very small number of incidents where the government or its agents carried out arbitrary or unlawful killings. There were no reports of disappearances by or on behalf of government authorities noted in the 2020 and 2021 reports.

In a January 2019 policy directive, the minister of justice instructed prosecutors to visit detention facilities on a regular basis to identify detainees with pending criminal dossiers to minimize use of detention for unofficial, extrajudicial purposes. The government does not have effective mechanisms to punish abuse and corruption according to the 2020 report.

The report also notes that "The Criminal Investigation Department (DIC) is in charge of investigating police abuses but was ineffective in addressing impunity or corruption.

Unlawful or Arbitrary Killings by Security Force Members

No such incidents are mentioned in the 2020 and 2021 US Department of State Reports.

Cruel, Inhuman, or Degrading Treatment by the Government

The 2020 report notes that, *"Human rights organizations noted examples of physical abuse committed by authorities, including excessive use of force as well as cruel and degrading treatment in prisons and detention facilities. In particular, they criticized strip search and interrogation methods. Police reportedly forced detainees to sleep on bare floors, directed bright lights at them, beat them with batons, and kept them in cells with minimal access to fresh air. Investigations, however, often were unduly prolonged and rarely resulted in charges or indictments.*

Impunity for such acts was a significant problem. Offices charged with investigating abuses included the Ministry of Justice and the National Observer of Places of Deprivation of Liberty.”

Harsh and Life-threatening Conditions in Prisons and Detention Centres

Poor conditions are reported as being common in prisons and detention centres. The 2020 report notes that, *“Some prison and detention center conditions were harsh and life threatening due to food shortages, overcrowding, poor sanitation, and inadequate medical care. Physical Conditions: Overcrowding was endemic. For example, Dakar’s main prison facility, Rebeuss, held more than twice the number of inmates for which it was designed. Female detainees generally had better conditions than male detainees. Pretrial detainees were not always separated from convicted prisoners. Juvenile detainees were often held with men or permitted to move freely with men during the day. Girls were held together with women. Infants and newborns were often kept in prison with their mothers until age one, with no special cells, additional medical provisions, or extra food rations.”*

The Report also notes that *“In addition to overcrowding, the National Organization for Human Rights, a nongovernmental organization (NGO), identified lack of adequate sanitation as a major problem. Poor and insufficient food, limited access to medical care, stifling heat, poor drainage, and insect infestations also were problems throughout the prison system. On February 20, an inmate passed away at Mbour Prison. According to official reports, he suffered an acute asthma attack due to being held in an overcrowded cell holding 87 other inmates. According to the most recent available government statistics, 31 inmates died in prisons and detention centers in 2019, six more than perished in 2018. Government statistics did not provide the cause of death. While perpetrators, which included prison staff and other prisoners, may have been subject to internal disciplinary sanctions, no prosecutions or other public actions were taken against them.”*

It appears that the administration of prisons and detention centres lacks the resources to effectively manage and investigate conditions and complaints of mistreatment.

The government permits prison visits by local human rights groups, all of which operated independently. It also permits visits by international observers. The National Observer of Detention Facilities has full and unfettered access to all civilian prison and detention facilities, but not to military and intelligence facilities. The National Observer, the 2020 US State Department Report notes *“was unable to monitor prisons throughout the country. It previously published an annual report but reports for 2015-19 had not been published by year’s end (2020).”*

Arbitrary Detention

The constitution and law prohibit arbitrary arrest and detention. However, as the 2020 report notes *“the government did not always observe these prohibitions.”* Detainees are legally permitted to challenge in court the legal basis or arbitrary nature of their detention and obtain prompt release and compensation if found to have been unlawfully detained; however, it is reported that this rarely occurs due to lack of adequate legal counsel.

Political Prisoners

The 2020 and 2021 US Department of State Reports do not contain any details or reports of political prisoners or detainees.

Arbitrary or Unlawful Interference with Privacy

The constitution and law prohibit such actions, but the 2020 report notes that there was at least one report where the government failed to respect this.

Restrictions on Free Expression and the Internet

The constitution and law provide for freedom of expression, including for the press, but the government occasionally limits these freedoms. Isolated reports of restrictions of such activities are noted in the 2020 and 2021 US Department of State reports.

Although the government continued to influence locally televised information and opinion through the Senegalese public broadcasting company (RTS) during 2020-2021, more than 10 privately owned television channels broadcast independently. By law the government holds a majority interest in RTS, and the president directly or indirectly controlled selection of all members of the RTS executive staff. Beyond RTS, members of President Sall's ruling party, appointed by the president, controlled all other public media outlets including the Senegalese Press Agency and the daily journal *Le Soleil*; reporting by these outlets often carried a pro-government bias according to the 2020 US Department of State report.

Independent journalists regularly criticise the government without reprisal. Private independent publications and government-affiliated media were available in Dakar, although their distribution in rural areas was irregular.

The law grants the Senegalese Regulatory Authority for Telecommunications and Post and existing internet service providers the ability to limit or block access to certain online sites and social networks.

Interference with Freedoms of Peaceful Assembly and Association

In Senegal, the Ministry of Interior must approve protests in advance.

The 2020 US Department of State report notes that "government sometimes restricted freedom of peaceful assembly, but generally respected freedom of association, except regarding lesbian, gay, bisexual, transgender, and intersex (LGBTI) organizations."

The report also notes that "Authorities" refused to authorize several demonstrations throughout the year" It goes on to say that "Some groups also complained of undue delays in response to authorization requests for public demonstrations. Authorities systematically invoked the law that prohibits demonstrations in certain parts of downtown Dakar to ban demonstrations."

Status and Treatment of Internally Displaced Persons

During the 38-year Casamance conflict, as many as 20,000 persons left villages in the region due to fighting, forced removal, and land mines, according to estimates by international humanitarian assistance agencies. Even now, refugees and internally displaced persons continue to return to their villages.

As far as protection of refugees is concerned, the government of Senegal cooperates with the Office of the UN High Commissioner for Refugees (UNHCR) and other humanitarian organizations in providing protection and assistance to internally displaced persons, refugees, asylum seekers, stateless persons, or other persons of concern.

The law in Senegal provides for the granting of asylum or refugee status, and the government has established a system for providing protection to refugees. Since the president must approve each case, delays of many years in granting refugee status remain a problem according to the US Department of State 2020 Report. It reports that “Refugee advocates reported the government rarely granted refugee status or asylum”. The government, however, generally allowed those with pending and some with rejected asylum claims to remain in the country. a pending claim.

Since 1989 Senegal has offered protection to Mauritanian refugees, who were dispersed over a large area in the Senegal River valley along the Mauritania border and enjoyed free movement within the country. According to UNHCR, most of the remaining Mauritanian refugees have indicated a desire to remain in Senegal permanently.

Lack of Investigation of and Accountability for Violence Against Women

The law in Senegal prohibits rape but does not address the gender of victims. The law also does not address spousal rape. An amendment to the penal code passed in December 2019 increased the penalties for rape, child abuse, and paedophilia. According to the US State Department Report of 2020, it received “widespread grassroots support from women’s and civil society groups outraged by egregious incidents of rape. Offenders that previously received five to 10-year sentences faced 10 to 20 years in prison, with possible life sentences in aggravated situations. Experts noted the government should train more gynaecologists(sic) and psychologists to assist victims and raise awareness of the law among key actors in society, including police, judges, religious leaders, and media.”

The government does not fully enforce existing laws, particularly when violence occurred within families. Although domestic violence that causes lasting injuries is punishable with a prison sentence of 10 to 20 years, and life imprisonment for murder, police usually do not intervene in domestic disputes. According to the 2020 report, “Several women’s groups and the Committee to Combat Violence against Women and Children (CLVF) reported a rise in violence against women. NGOs, including the CLVF, noted the failure of some judges to apply domestic violence laws, citing cases in which judges claimed lack of adequate evidence as a reason to issue lenient sentences. “NGOs also noted the government’s failure to permit associations to bring suits on behalf of victims and the lack of shield laws for rape. The number of incidents of domestic violence, which many citizens considered a normal part of life, were much higher than the number of cases reported.

The Ministry of Justice is responsible for combating domestic violence, but it did not undertake any programs to address rape and domestic violence in 2020. The government run Ginddi Center in Dakar provides shelter to women and girls who are survivors of rape or child, early, and forced marriage as well as to street children.

The law in Senegal provides criminal penalties for the perpetration of Female Genital Mutilation/Cutting (FGM/C) on women and girls, but authorities prosecuted no cases in 2020 according to public records. 2020 US Department of State notes that “FGM/C was practiced in the country with an average prevalence of 25 percent, with dramatic variation across regions and ethnic groups, including rates as high as 80 percent in some regions, according to UNICEF and local surveys”.

The law mandates prison terms of five months to three years and modest to substantial fines for sexual harassment, but the problem was widespread. The government did not effectively enforce the law according to the 2020 US Department of State report.

Criminalisation of Consensual Same-Sex Sexual Conduct

Consensual same-sex sexual activity between adults, referred to in law as an “unnatural act,” is a criminal offense, and penalties range from one to five years’ imprisonment and fines; however, the law was rarely enforced. No laws prevent discrimination based on sexual orientation or gender identity, nor are there hate crime laws that could be used to prosecute crimes motivated by bias against LGBTI persons. LGBTI persons faced widespread discrimination, social intolerance, and acts of violence. LGBTI individuals were subject to frequent threats, mob attacks, robberies, expulsions, blackmail, and rape; authorities sometimes condoned or tolerated these abuses. LGBTI activists also complained of discrimination in access to social services. The government and cultural attitudes remained heavily biased against LGBTI individuals.

The law prohibits all forms of discrimination against persons with HIV/AIDS, and the government and NGOs conducted HIV/AIDS awareness campaigns to increase social acceptance of persons with HIV or AIDS and increase HIV testing and counselling nationwide. Nevertheless, human rights activists reported HIV-positive individuals and those with AIDS-related illnesses suffered from social stigma due to the widespread belief that such status indicated homosexuality. HIV-positive men sometimes refrained from taking antiretroviral drugs due to fear their families would discover their sexual orientation.

Limited Steps by Government to Investigate Human Rights Abuses

The picture that emerges from the US Department of State Reports for 2020 and 2021 is that capacity to investigate human rights abuses is limited and that such activity is not a priority.

Violence Against Women

See section above on Lack of Investigation of and Accountability for Violence Against Women and on Abuse of Women and Children below.

Abuse of Women and Children

The law provides for the same legal status and rights for women as for men, although there are legal restrictions on women in employment, including limitations on occupations and tasks but not on working hours. Nevertheless, women faced pervasive discrimination, especially in rural areas where traditional customs and discriminatory rules of inheritance were strongest. The law’s definition of paternal rights also remained an obstacle to equality between men and women. The law considers men to be heads of household, preventing women from taking legal responsibility for their children. Additionally, any childhood benefits are paid to the father. Women may become the legal head of household only if the husband formally renounces his authority before authorities or if he is unable to act as head of household. While women legally have equal access to land, traditional practices made it difficult for women to purchase property in rural areas. Many women had access to land only through their husbands, and the security of their rights depended on maintaining their relationships with their husbands. Discriminatory laws and policies also limited women’s access to and control over capital. The Ministry for Women’s Affairs, Family Affairs, and Gender has a directorate for gender equality that implemented programs to combat discrimination.

Child abuse remained common the 2020 and 2021 US Department of State Reports note, particularly of boys sent to Dakar and other cities to beg under threat of punishment. Parents sent many of these boys to study in daaras (Quranic religious schools). At some daaras, Quranic instructors exploited, physically abused, and

forced children to beg on the street. According to Human Rights Watch in 2019, more than 100,000 students lived in daaras across the country.

The law prohibits the commercial sexual exploitation, sale, and offering or procuring of children for prostitution and practices related to pornography. Sexual abusers convicted of trafficking of children receive five to 10 years' imprisonment and a fine. If the offender is a family member, the maximum is applied. Procuring a minor for prostitution is punishable by imprisonment for two to five years and modest to substantial fines. If the crime involves a victim younger than 13, the maximum penalty is applied. The law was not effectively enforced, but when cases were referred to authorities, they conducted follow-up investigations. The minimum age of consensual sex is 18. Pornography involving children younger than age 16 is considered paedophilia and punishable by up to two years' imprisonment and a fine. Exploitation of women and girls in prostitution and sex trafficking was a problem, particularly in the southeast gold-mining region of Kedougou. Although there were no reports of child sex tourism, the country was considered a destination for child sex tourism for tourists from France, Belgium, and Germany, among other countries.

Infanticide continues to be a problem the 2020 and 2021 reports note. This is usually due to poverty or embarrassment. In some cases, women's families shamed them into killing their babies. Domestic workers and rural women working in cities sometimes killed their new-borns if they could not care for them. According to the African Assembly for the Defence of Human Rights, infanticide also occurred when a woman became pregnant with the child of a man from a prohibited occupational caste. If police discovered the identity of the mother, she faced arrest and prosecution for infanticide.

The US Department of State Reports for 2020 and 2021 note that "Many children displaced by the Casamance conflict lived with extended family members, neighbours, in children's homes, or on the streets".

According to NGOs in the Casamance (cited in the 2020 and 2021 reports), displaced children suffered from the psychological effects of conflict, malnutrition, and poor health. In May 2020, the Ministry of Women, Family, Gender, Children, and Social Protection launched a third phase of its "Zero Enfants Dans La Rue" (No Children in the Street) project. It sought to remove 10,000 street children in Dakar by returning them to their families. The one billion CFA francs (\$1.8 million) program also sought to remove an additional 10,000 from other regions.

Abuse of Persons with Disabilities

The Ministry for Health and Social Action in Senegal is responsible for protecting the rights of persons with disabilities.

The law prohibits discrimination against persons with disabilities, but the government did not enforce these provisions adequately. The law also mandates accessibility for persons with disabilities, but the government did not effectively enforce the law according to the US Department of State 2020 Report. The government provided grants, managed vocational training in regional centers, and offered funding for persons with disabilities to establish businesses. Due to a lack of special education training for teachers and facilities accessible to children with disabilities, authorities enrolled only 40 percent of such children in primary school. Support for persons with mental disabilities was not generally available, and incidents of abuse of persons with mental disabilities were common. Persons with disabilities experienced difficulty registering to vote as well as accessing voting sites, due to physical barriers such as stairs as well as the lack of provisions such as

Braille ballots or sign language interpreters for persons who were visually or hearing impaired, or unable to speak. The law reserves 15 percent of new civil service positions for persons with disabilities, but this quota has never been enforced. In regions outside Dakar, in particular, persons with disabilities were still effectively excluded from access to these positions.

Child Labour

Regulations on child labour set the minimum working age at 15, with work considered “hazardous” prohibited until age 18. The law prohibits many forms of hazardous child labour but includes exceptions. In the agricultural sector, for example, children as young as age 12 are permitted to work in a family environment. The law also allows boys younger than age 16 to work in underground mines and quarries doing “light work.” Due to the nature of the dangers associated with mining, “light work” activities do not prevent exposure to hazards. Prior to construction and use of quarries and borrow pits, ASGC and its contractors should ascertain whether they employ people under the age of 18 and if they do ascertain what roles they are employed in. Contracts issued by ASGC should prohibit child labour and stipulate very clearly what constitutes child labour and the sanctions for not observing this requirement. Regular labour audits should be carried out at these facilities by ASGC. Inspectors from the Ministry of Labour are responsible for investigating and initiating lawsuits in child labour cases. The ministry’s investigators may visit any institution during work hours to verify and investigate compliance with labour laws and may act on tips from trade unions or ordinary citizens. The 2020 US Department of State Report notes that “Penalties for child labour were often unenforced and were not commensurate with penalties for other serious crimes”. It goes on to say that “The Ministry of Labour sent investigators to investigate formal workplaces, but they were not adequately trained to deal with child labour problems. The Child Labour Division in the Ministry of Labour was understaffed. Inspectors did not adequately monitor the informal sector, and no cases of child labour were identified in the formal sector”. In addition, many areas with prevalent abuses are remote, and inspectors are only located in larger cities. There is no specific system to report child labour violations in Senegal, this, the 2020 US Department of State Report notes “is largely due to inadequate efforts of the Child Labour Division and the Ministry of Labour”. The ministry instead relied on unions to report violators.

The government in Senegal has conducted seminars with local officials, NGOs, and civil society to raise awareness of the dangers of child labour, exploitative begging, and online exploitation of children. Most instances of child labour occurred in the informal economy where labour regulations were not enforced. Economic pressures and inadequate educational opportunities often pushed rural families to emphasize work over education for their children.

Child labour was found to be especially common in the regions of Tambacounda, Louga, and Fatick, where up to 90 percent of children worked. Child labour was prevalent in many informal and family-based sectors, such as agriculture (millet, corn, and peanuts), fishing, artisanal gold mining, garages, dumpsites, slaughterhouses, salt production, rock quarrying, and metal and woodworking shops. In the large, informal, unregulated artisanal mining sector, entire families, including children, were engaged in artisanal mining work. Child gold washers, most ages 10 to 14, worked approximately eight hours a day using toxic agents such as mercury without training or protective equipment. There were also reports of children working on family farms or herding cattle. Children also worked as domestics, in tailoring shops, at fruit and vegetable stands, and in other areas of the informal economy. According to the International Labour Organization, 28 percent of children participated in the labour force. A predominant type of forced child labour was the forced begging by children sent to live and study under the supervision of Quranic teachers.

Poor Safety and Working Conditions for Workers

Legal regulations on industry-appropriate occupational safety and health exist, and the government sets the standards. Employees or their representatives have the right to propose whatever they assume would provide for their protection and safety and refer proposals to the competent administrative authority in case the employers refuse. The Ministry of Labour, through the Labour Inspection Office, is responsible for enforcing labour standards in the formal sector; those who violate standards are officially subject to fines and imprisonment, but labour standards were not regularly enforced and were insufficient to deter violations. Penalties were commensurate with penalties for comparable violations. Enforcement of the workweek standard was irregular.

The US Department of State Report for 2020 notes that “Labour inspectors had poor working conditions and lacked transportation to conduct their mission effectively. The number of labour inspectors was insufficient to enforce compliance. Labour inspectors had the authority to hold unannounced inspections and impose penalties. Violations of wage, overtime, and occupational safety and health standards were common.” Due to high unemployment and a slow legal system, workers seldom exercised their nominal right to remove themselves from situations that endangered health or safety. According to Conseil National du Patronat (National Employers Council) statistics, there were 1,700 cases related to workplace accidents in 2017 compared with approximately 1,900 cases in 2016 (the majority of which took place in Dakar); labour activists claim that number was low since the official statistic does not take into account the large number of workplace accidents in the informal sector.

ASGC will carry out regular audits of HSE performance and will also require regular reports from its contractors on HSE issues as part of its CESMP.

Lack of Contracts for Workers

The national minimum hourly wage was higher than the estimated poverty income rate. The Ministry of Labour is responsible for enforcing the minimum wage. Labour unions also acted as watchdogs and contributed to effective implementation of the minimum wage in the formal sector. The minimum wage provisions apply to foreign and migrant workers as well. For most occupations in the formal sector, the law mandates a standard workweek of 40 to 48 hours, or approximately 2,100 hours per year, with at least one 24-hour rest period per week, one month per year of annual leave, enrolment in government social security and retirement plans, safety standards, and other measures. Night work is defined as activity between 10 p.m. and 5 a.m.; night workers should receive a supplementary rate of 60 percent for any night hours worked and 100 percent for any night hours worked on holidays. The law does not prohibit excessive or compulsory overtime in the formal sector. Premium pay for overtime is required only in the formal sector. Legal regulations on industry-appropriate occupational safety and health exist, and the government sets the standards. Employees or their representatives have the right to propose whatever they assume would provide for their protection and safety and refer proposals to the competent administrative authority in case the employers refuse.

The Ministry of Labour, through the Labour Inspection Office, is responsible for enforcing labour standards in the formal sector; those who violate standards are officially subject to fines and imprisonment, but labour standards were not regularly enforced and were insufficient to deter violations. Penalties were commensurate with penalties for comparable violations. Enforcement of the workweek standard was irregular. Labour inspectors had poor working conditions and lacked transportation to conduct their mission

effectively. The number of labour inspectors was insufficient to enforce compliance. Labour inspectors had the authority to hold unannounced inspections and impose penalties. Violations of wage, overtime, and occupational safety and health standards were common. Due to high unemployment and a slow legal system, workers seldom exercised their nominal right to remove themselves from situations that endangered health or safety. According to Conseil National du Patronat (National Employers Council) statistics, there were 1,700 cases related to workplace accidents in 2017 compared with approximately 1,900 cases in 2016 (the majority of which took place in Dakar); labour activists claim that number was low since the official statistic does not take into account the large number of workplace accidents in the informal sector.

Limitations on Worker's Representation and Union Membership

The law provides for the rights of workers to form and join independent unions, except for security force members, including police and gendarmes, customs officers, and judges. Unions have the right to bargain collectively and strike, with some restrictions. The law allows civil servants to form and join unions. Before a trade union may exist legally, the labour code requires authorization from the Ministry of Interior. Unions have no legal recourse if the minister refuses registration, although authorization is rarely withheld. Under the law, as part of the trade union recognition process, the ministry has the authority to check the morality and aptitude of candidates for positions of trade union officials. Any change to the bylaws of a trade union must be reported to and investigated by the inspector of labour and the public attorney. Additionally, the law provides that minors (both as workers and as apprentices) may not join a union without parental authorization. The state prosecutor may dissolve and disband trade unions by administrative order if union administrators are not following government regulations on the duties of a union to its members. The law prohibits antiunion discrimination and allows unions to conduct their activities without interference. Foreigners may hold union office only if they have lived in the country for five years and only if his or her country provides the same right to Senegalese citizens. Collective bargaining agreements covered an estimated 44 percent of workers in the formal economy. Unions are able to engage in legal proceedings against any individual or entity that infringes the collective bargaining rights of union members, including termination of employment. The law provides for the right to strike; however, certain regulations restrict this right.

The US Department of State Report 2020 notes that "According to labour activists, the constitution undermines the right to strike by stipulating that a strike must not infringe on the freedom to work or jeopardize an enterprise. The law states workplaces may not be occupied during a strike and may not violate no strikers' freedom to work or hinder the right of management to enter the premises of the enterprise. This means pickets, go-slows, working to rule, and sit-down strikes are prohibited."

Unions representing members of the civil service must notify the government of their intent to strike at least one month in advance; private sector unions must notify the government three days in advance.

The government does not have any legal obligation to engage with groups who are planning to strike, but the government sometimes engaged in dialogue with these groups. The government may also requisition workers to replace those on strike in all sectors, including "essential services" sectors. A worker who takes part in an illegal strike may be summarily dismissed. The government effectively enforced applicable laws on the right to strike. Penalties for noncompliance include a fine, imprisonment, or both. Penalties were sufficient to deter violations.

The labour code does not apply to the informal sector and thus excludes the majority of the workforce, including subsistence farmers, domestic workers, and those employed in many family businesses. The government did enforce applicable laws. Penalties were commensurate with those for similar offenses. The government and employers generally respected freedom of association and the right to collective bargaining with restrictions. Workers exercised the right to form or join unions, but antiunion sentiment within the government was strong. Trade unions organize on an industry-wide basis, very similar to the French system of union organization. There were no confirmed reports of antiunion discrimination.

Threats Against Lesbian, Gay, Bisexual, Transgender, and Intersex (LGBTI) persons

See text on LGBTI persons above.

Forced and Child Labour (including trafficking)

The law prohibits all forms of forced or compulsory labour. Many provisions of the law impose imprisonment with compulsory prison labour as a penalty for noncompliance with certain practices, however, such as for participation in strikes in “essential services,” for occupying the workplace or its immediate surroundings during strike actions, or for breaching labour discipline deemed to endanger ships or the life or health of persons on board. Penalties for forced labour were commensurate with penalties for other serious crimes. The government did not effectively enforce applicable laws against forced labour, and such practices continued to occur in the areas of domestic servitude, forced prostitution, farm labour, and artisanal mining according to the US Department of State Reports 2020 and 2021.

Forced child labour occurred, including forced begging by children in some Quranic schools (see above). Some children in these schools were kept in conditions of servitude; were forced to work daily, generally in the street begging; and had to meet a daily quota for money (or sometimes sugar or rice) set by their teachers. The National Antitrafficking Task Force and Child Protection Special Unit in Senegal continued to address these matters throughout the country. When officials identified a potential forced begging case, however, they often did not prosecute according to previously mandated minimum sentencing guidelines the 2020 and 2021 reports note.

Regulations on child labour set the minimum working age at 15, with work considered “hazardous” prohibited until age 18. The law prohibits many forms of hazardous child labour but includes exceptions. In the agricultural sector, for example, children as young as age 12 are permitted to work in a family environment. The law also allows boys younger than age 16 to work in underground mines and quarries doing “light work.” Due to the nature of the dangers associated with mining, “light work” activities do not prevent exposure to hazards. Inspectors from the Ministry of Labour are responsible for investigating and initiating lawsuits in child labour cases. The ministry’s investigators may visit any institution during work hours to verify and investigate compliance with labour laws and may act on tips from trade unions or ordinary citizens. Penalties for child labour were often unenforced and were not commensurate with penalties for other serious crimes. The Ministry of Labour sent investigators to investigate formal workplaces, but they were not adequately trained to deal with child labour problems. The Child Labour Division in the Ministry of Labour was understaffed. Inspectors did not adequately monitor the informal sector, and no cases of child labour were identified in the formal sector. In addition, many areas with prevalent abuses are remote, and inspectors are only located in larger cities. There was no specific system to report child labour violations, largely due to inadequate efforts of the Child Labour Division and the Ministry of Labour. The ministry instead relied on unions to report violators. The government conducted seminars with local officials, NGOs, and civil

society to raise awareness of the dangers of child labour, exploitative begging, and online exploitation of children.

Most instances of child labour occurred in the informal economy where labour regulations were not enforced the 2020 and 2021 reports note. Economic pressures and inadequate educational opportunities often pushed rural families to emphasize work over education for their children. Child labour was prevalent in many informal and family-based sectors, such as agriculture (millet, corn, and peanuts), fishing, artisanal gold mining, garages, dumpsites, slaughterhouses, salt production, rock quarrying, and metal and woodworking shops. There were also reports of children working on family farms or herding cattle. Children also worked as domestics, in tailoring shops, at fruit and vegetable stands, and in other areas of the informal economy. According to the International Labour Organization, 28 percent of children participated in the labour force.

See text above regarding the measures to prevent child labour to be taken by ASGC and its contractors.

10.3 Scoping of the HRIS for Project Strada

The scoping of this screening has been based on the rights defined in the United Nations International Convention on Civil and Political Rights (ICCPR), the United Nations International Covenant on Economic, Social and Cultural Rights (ICESCR) and the ILO's Declaration on Fundamental Principles and Rights at Work.

The results of the scoping process are presented in the Table 10-1 below.

TABLE 10-1: Human Rights Scoping Assessment

Source Document	Human Right/Principle	Scoped In	Scoped Out	Comments
ICCPR	Art. 1 right of all peoples to self-determination, including the right to "freely determine their political status", [11] pursue their economic, social and cultural goals, and manage and dispose of their own resources		x	Scoped out on the basis that this is a constitutional/political issue over which the Project has no direct control
	Art.1 right of a people not to be deprived of its means of subsistence		x	As above
	Art. 2 – 5 oblige parties to legislate where necessary to give effect to the rights recognised in the Covenant, and to provide an effective legal remedy for any violation of those rights. They also require the rights be recognised "without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status," and to ensure that they are enjoyed equally by women.	x		The Project's policies and plans will adhere to the principles as they apply to its workforce and the communities and individuals affected by its activities
	Art. 4 no one shall be required to perform any forced or compulsory labour	x		This right will be incorporated into the Project's plans and policies
	Art. 6-8 physical integrity, in the form of the right to life and freedom from torture and slavery		x	Not applicable to the Project or within its control.
	Art. 8 3 No one shall be required to perform forced or compulsory labour"	x		This right will be incorporated into the Project's plans and policies
	Art.9-11 liberty and security of the person, in the form of freedom from arbitrary arrest and detention and the right to habeas corpus		x	Not applicable to the Project or within its control.
	Art. 14-16 procedural fairness in law, in the form of rights to due process, a fair and impartial trial, the presumption of innocence, and recognition as a person before the law.			x Not applicable to the Project or within its control.

Source Document	Human Right/Principle	Scoped In	Scoped Out	Comments
	Art.12-13,17-24 Individual liberty, in the form of the freedoms of movement, thought, conscience and religion, speech, association and assembly, family rights, the right to a nationality, and the right to privacy			
	Art.20 Prohibition of any propaganda for war as well as any advocacy of national or religious hatred that constitutes incitement to discrimination, hostility or violence by law		x	Not applicable to the Project or within its control.
	Art.25 political participation, including the right to the right to vote		x	Not applicable to the Project or within its control.
	Art.26-27 Non-discrimination, minority rights and equality before the law	x		Recognised as a principle in Project policies and plans.
ICESCR	Art.1 Right to Self-determination			
	Art.6 The Right to Work as defined within the convention: “the opportunity of everyone to gain a means of sustenance by means of freely chosen or accepted work.” The implications of this are as follows: <ul style="list-style-type: none"> • avoidance of discrimination in the workplace • avoidance of child or forced labour • work must be “decent work” as defined in Art.7-the right of everyone to "just and favourable working conditions such as fair wages with equal pay for equal work, sufficient to provide a decent living for workers and their dependents; safe working conditions; equal opportunity in the workplace; and sufficient rest and leisure, including limited working hours and regular, paid holidays.” 	x		Key elements of this Right will be included in the Project’s Plans and policies
	Art.8 Right to join and form trade unions and the Right to strike	x		This right will be incorporated into the Project’s plans and policies
	Art.9 The right of everyone to social security, including social insurance.	x		

Source Document	Human Right/Principle	Scoped In	Scoped Out	Comments
	<p>Art.10 The rights of the family including: Provision of paid leave or adequate social security to mothers before and after childbirth. Protection of children from economic or social exploitation, including setting a minimum age of employment and barring children from dangerous and harmful occupations.</p>	x		This right will be incorporated into the Project's plans and policies
	<p>Art.11 Right to an adequate standard of living. This includes the right to adequate food, clothing, housing, and the continuous improvement of living conditions</p>		x	While the Project is committed to paying fair wages in line with national and international guidelines, the overall standard of living of its workforce is not within its control.
	<p>Art.12 The right to health. This comprises among other elements: "the enjoyment of the highest attainable standard of physical and mental health." This includes freedom from torture and medical experimentation. This right can be protected by ensuring that people have adequate access to the underlying determinants of health, such as clean water, sanitation, food, nutrition and housing, and a comprehensive system of healthcare, available to everyone without discrimination, and economically accessible to all. Environmental and workplace health also needs to be improved. The right to sexual health and avoidance of harmful sexual practices including FGM are also a fundamental aspect of this right. The right to health is an inclusive right extending not only to timely and appropriate health care, but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions.</p>	x		Key elements of this Right as they apply to project activities will be incorporated within Project plans and policies

Source Document	Human Right/Principle	Scoped In	Scoped Out	Comments
	Art.13-14 Right to freedom of education		x	Not a Right over which the Project has any control
	Art.15- Right to Science and culture, Right to development, and Right to Public participation.		x	Not a Right over which the Project has any control
ILO	Right to the freedom of association and the effective recognition of the right to collective bargaining	x		Project policies and workforce and supplier contracts will incorporate this right
	The elimination of all forms of forced or compulsory labour	x		Project policies and workforce and supplier contracts will incorporate this right and commit to not using forced or compulsory labour
	The effective abolition of child labour	x		Project policies and workforce and supplier contracts will incorporate this right and commit to not using child labour
	The elimination of discrimination in respect of employment and occupation	x		Project policies and workforce and supplier contracts will incorporate this right and commit to non-discrimination in the workplace
	A safe and healthy working environment.	x		Project policies and workforce and supplier contracts will incorporate this right and commit to providing and maintaining a safe working environment

The table for summarising the findings of a screening assessment outlined in the fourth version of the Equator Principles has been referred to during this Human Rights screening. The assessment has focused on the role of Project policies, plans and procedures in operationalizing a robust framework from the ongoing management of risks relating to human rights. The assessment is underpinned by an understanding that there exists a commitment from senior management to protect and manage human rights. In addition, it is critical that contractual language is reviewed to confirm that business relationships, including subcontracts and first-tier supplier relationships, are bound by the same policies and procedures. The following policies and procedures which have been included or will be included in the ESMS and CESMP for Project Strada, will be of fundamental importance to managing human rights risks on the Project:

- Human Rights Policy
- Human Resources Management Plan
- Labour Management Plan
- Worker Grievance Mechanism
- Stakeholder Engagement Plan (SEP)-including a Community Grievance Mechanism
- Environmental Social Management System (ESMS)
- Environmental and Social Management Plan (ESMP)

The table below provides an overview of the different Human Rights areas and Project policies, plans and procedures required to address and mitigate any potential Human Rights risks.

TABLE 10-2: Human Rights Areas and Project Policies

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
Grievance Mechanism and Remedy	ü	ü	ü	Economic, Social, and Cultural	Human Rights Policy Worker Grievance Mechanism Stakeholder Engagement Plan (including Community Grievance Mechanism) ESMS ESIA	ASGC will develop communication programmes to ensure that employees are aware of their rights according to labour, health and safety laws and membership rights to labour associations. The Human Resources Department will ensure that a grievance mechanism is established, communicated, and maintained to address employee and/or contractor concerns. A Community Grievance Mechanism and a Worker Grievance Mechanism will be established as part of the Project to record and address any complaints that may arise during the Project's implementation phase. The Mechanisms are designed to address concerns and complaints promptly and transparently with no impacts (cost, discrimination) for project-affected people, employees or those submitting the grievance. They will work within existing legal and cultural frameworks, providing an additional opportunity to resolve grievances. Information on the steps to be followed in handling grievances will be incorporated into the consultation process with local community and the workforce.
Job Security/Right to Work	ü		ü	Economic	Human Resources Management Plan	The Plan will address job security and recognise the right to work.
Non-discrimination	ü	ü	ü	Civic, political, Economic, Social and cultural	Human Rights Policy ESMS Human Resources Management Plan	ASGC will develop labour and employment policies and procedures that address issues related to non-discrimination, personal rights, sexual harassment, and

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
						<p>equal opportunity for employees. They will also address child and forced labour.</p> <p>The Human Resources Management Plan will emphasise the importance of promoting equal opportunity for employment regardless of gender, ethnicity, disability, or sexual orientation.</p>
Occupational health and safety	ü		ü	Economic and Social	<p>OHS Policy</p> <p>CESMP</p> <p>Human Resources Management Plan</p> <p>HSSE Plan</p>	<p>The Construction Environmental & Social Management Plan (CESMP) will ensure adequate monitoring of workers using appropriate PPE for the task</p> <p>As part of good international industry practice, ASGC will provide safe and healthy working facilities for all workers on site, and if residential facilities are to be provided will ensure that workers are safe that it meets their basic needs and meet the EBRD/IFC's guidance for worker accommodations.</p> <p>All Project construction staff will be provided with health and safety training and adequate protective gear. ASGC will also provide the same for the Project construction staff and these recommendations/requirements will be captured in the Human Resources Management plan.</p>
Child Labour	ü	ü	ü	Economic and Social	<p>Human Rights Policy</p> <p>Human Resources Management Plan</p>	<p>Human Rights Policy and Resources Management Plan to including specific provisions concerning Child Labour. Requirements to include auditing of contractors</p>
Modern Slavery (Forced Labour/Human Trafficking)	ü	ü	ü	Economic and Social	<p>Human Rights Policy</p> <p>Human Resources Management Plan</p>	<p>Human Resources Management Plan to including specific provisions concerning Child Labour. Requirements to include auditing of contractors.</p>

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
Wages (pay equity, standard of living)	ü		ü	Economic and Social	Human Resources Management Plan ESMS	The Human Resources department will be responsible for determining suitable salaries and remuneration. Grievances relating to conditions and remuneration will be managed via the Workers Grievance Mechanism.
Working Hours	ü		ü	Economic and Social	Human Resources Management Plan	In the workforce induction process and safety orientation checklist, normal hours of work, lunch and meal breaks will be addressed.
Collective bargaining and Freedom of association	ü		ü	Economic, Social, Civil and Political	ESMS	ASGC will develop communication and training programs to ensure that employees are aware of their rights according to labour, health and safety laws and membership rights to labour associations.
Freedom of expression	ü		ü	Civil and Political		
Privacy	ü	ü	ü	Social and Cultural	Human Resources Management Plan	Except for circumstances in which ASGC is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions and any other personal data will be maintained in accordance with applicable law and to the extent practical under the circumstances. Information relating to employee health must be used in a manner that protects the confidentiality of employees as much as possible while the information is being used for OSHA purposes in accordance with National requirements.
Right to life and security of person	ü	ü	ü	Social and Cultural	Human Rights Policy ESMP	The Human Rights Policy will commit to these fundamental rights.

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
Right to health	ü	ü	ü	Economic, Social, and Cultural		<p>The Environmental & Social Management Plan (ESMP) contains measures to ensure adequate monitoring of workers using appropriate PPE for their work.</p> <ul style="list-style-type: none"> ASGC will engage with the communities on health-related issues. For example, they will put in place notice boards that are publicly visible that describe hazards and preventative measures. Also raising awareness among the local population by posting signs on health issues associated with uncontrolled deposition of domestic waste in the construction area.
Right to participate in the cultural life of the community		ü	ü	Social and Cultural	Chance Finds Procedure	To ensure the preservation of tangible and intangible cultural assets identified by the communities and experts, the Project will develop and implement a Chance Find Procedure in-line with national requirements and Performance Standard 8.
Right to Water	ü	ü	ü	Social	ESMP	<p>The ESMP contains measures that prior to taking water from a borehole or well:</p> <ul style="list-style-type: none"> Identify all other boreholes and wells within 100 m of the source. Engage with community on project water demands Measure the level and quality of water in these wells.

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
						<ul style="list-style-type: none"> • Thereafter measure the level and quality of water on a monthly basis, continuing until two months after abstraction ceases. • If monitoring indicates a material reduction in water level or water quality, then abstraction should cease. • If the reduction is substantial enough to affect the availability or usability of supply to the users, then ASGC will need to provide and fund an alternate, equivalent supply for the duration of the period that an effect occurs.
Social Insurance	ü		ü	Economic and Social	Human Resources Management Plan	Workers' compensation claim forms will be accessible to workers that get injured on the job.
Right to Non-Discrimination	ü	ü	ü	Civic, political, Economic, Social and cultural	Human Resources Policy Human Rights Policy Human Resources Management Plan Human Resources Policy and Environment, Social, equality, diversity and inclusion and health and safety policy.	The Human Rights Policy will commit ASGC to not unlawfully discriminate because of: <ul style="list-style-type: none"> • age • disability • gender • marriage or civil partnership • pregnancy and maternity • race (including colour, nationality, and ethnic or national origin) • religion or belief • sex • sexual orientation

Human Rights Issue	Risk to Workers?	Risk to Affected Community Members?	To be Addressed in Project Plans?	Human Rights Category	Proposed Plans/Procedures References	Comments
Indigenous Peoples			NA	Economic, Social and Cultural	NA	This item is not applicable to this project. However, the SEP and Community Grievance Mechanism will both contain specific provisions regarding nomadic groups
Migrants Rights	ü		ü	Economic and Social	Human Rights Policy	ASGC will commit to protecting the rights of migrants and migrant workers.

The Strada Project is in the process of establishing mitigation measures to address potential human rights impacts. This includes policies and plans and associated management systems, control measures and reporting requirements. These measures will apply to the ASGC and to its contractors and suppliers so that its supply management manages this risk.

The table below summarises the principal mitigation measures to be developed by the Strada Project.

TABLE 10-3: Proposed Human Rights Mitigation Measures Relating to Potential Impacts Scoped in as Relevant in Table 10.1

Proposed Mitigation Measures
<p>ASGC will develop a number of plans and associated policies that will provide for mitigation of potential risks these will be as follows:</p> <ul style="list-style-type: none"> • identification of potential hazards to workers, these will be accompanied by risk assessments and risk management procedures and training • (ii) provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances and provision of safety equipment, PPE etc • (iii) training of workers on hazardous activities and risk prevention and safety induction briefings • (iv) documentation and reporting of occupational accidents, diseases, and incidents • emergency prevention, preparedness, and response procedures including liaison with agencies and service providers • provision of on-site first and aid and accident response teams and access to medical facilities. <p>Health and safety and human rights criteria will be included in the procurement process for the selection of contractors and suppliers.</p>
<p>ASGC's management systems and plans within this category of potential risks to human rights - see below:</p> <ul style="list-style-type: none"> • The ESMP contains mitigation measures to ensure the safety and wellbeing of both workers and community members. These will be monitored on a regular basis by the Project HSE Team and reported to management on a weekly basis. Contractors and suppliers will be expected to implement counterpart measures. Supplier and contractor audits will be carried out on a regular basis. Corrective actions will require management approval and strict close-out criteria. • ASGC will establish a worker confidentiality and data privacy and protection system in accordance with International and National and Zanzibari requirements. • ASGC will include clear requirements on worker's participation in unions etc and these will also form part of the contractual conditions for contractors and suppliers. • ASGC will develop a security plan and procurement criteria for the procurement of external security providers. Information on this plan and the service provider will be shared with local communities. The performance of the security provider will be subject to regular audits. • Security -related grievances will be discussed with the relevant Zanzibari authorities • Security issues will for part of weekly reports to management
<p>The Project ESMP will implement the mitigation measures included in the ESIA relating to the wellbeing of staff and local communities both economic and health and safety. Regular engagement will also be carried out as part of the SEP.</p> <p>The Project will engage regularly with local communities and individual resource and infrastructure owners and users regarding the use of local resources and infrastructure. The SEP and LRP's and RAP will be key engagement tools and will be regularly updated.</p> <p>The Project will engage with local communities and asset owners concerning the conservation and protection of community cultural heritage assets.</p>

Proposed Mitigation Measures

ASGC will include human rights criteria in all supply chain procurement processes and will require proof of performance.

A Contractor and Supply Chain Management Plan will be developed including the following measures to mitigate supply chain risks:

- Respect for human rights is part of contractual requirements as is alignment with UN and ILO conventions and the UNGPs.
- Compliance checks of all potential primary suppliers* companies will be carried out to ensure no human rights related infringements have occurred in the past; they have policies in place to ensure no modern slavery, forced labour or child labour.
- Build in contract language which allows the company to audit suppliers' books and records at the company's discretion for human rights related concerns.
- Regular performance audits of suppliers.

ASGC, based on the work done to produce the SEA will use the RPF and SEP to conduct an exercise to identify vulnerable groups potentially affected by the Project. The ESMP, SEP, GRMs and other tools will be used to monitor effects on vulnerable groups. The LRP will contain measures to protect and enhance the livelihoods of vulnerable groups.

The use of security companies is a common feature of infrastructure projects and programmes. If Project Strada will involve the use of security teams by ASGC or the various contractors involved in construction, it will be important to understand the relationship between security forces and community members (specifically those that may oppose certain aspects of the Project). To do so effectively, a description of the existing relationship with the security forces, engagement (past, regular, and proactive) and how the company is reaching out to relevant security authorities to understand potential deployments and, to the extent possible, to promote appropriate and proportional use of force will be required. ASGC and its contractors will need to document how they will abide by the guidance set forth in the Voluntary Principles on Security and Human Rights. As outlined by international guidance (Global Compact, 2010), the company is allowed to:

“use security guards to protect its workers and property where this is considered necessary. However, the company should ensure that its security guards, whether directly employed or contracted, behave in accordance with national law and international principles for law enforcement and the use of force. This includes preventing excessive use of force, abuse of power or other human rights abuses by security personnel towards other employees or local communities”.

The increasing vulnerability category of human rights has the largest number of gaps which need to be addressed via the development of plans and policies to overcome deficiencies in national regulations and practices. All areas (to include equal opportunity regardless of sexual orientation) need inclusion in the Project's policies & plans. Violence and threats made against migrants, women, individuals with disabilities, and lesbian, gay, bisexual, transgender, and intersex (LGBTI) persons are flagged as a nationwide Human Rights area of concern (U.S Department of State Human Rights Reports, 2019-2021) and should be appropriately covered in the Project's policies and procedures.

Upon closure of the gaps and applying the specific recommendations summarised in this assessment, ASGC will demonstrate its respect for human rights and will be in alignment with internationally recognized best

practices. These best practices include seeking to prevent or mitigate potential human rights issues that may be caused directly by the company’s operations or by the operations of project partners and suppliers. This will be done through ASGC’s human rights related policies, procedures and plans, and by embedding these policies, procedures and plans into various management systems (such as the ESMS and the Human Resources Management Plan monitoring requirements).

Individual ESIA’s should carry out a further HRIS to ensure that potential human rights impacts are identified, and mitigation measures put in place.

11 Biodiversity Action and Management Plan

For all project components that have the potential to significantly convert or degrade natural habitats, and for project components being undertaken in critical habitats (high and medium risk projects) a Biodiversity Action Plan will be developed. For all project components including those in modified habitat (low risk projects) a Biodiversity Management Plan will be developed.

Biodiversity Management Plan (BMP)

The aim of a BMP is to provide a framework for the implementation of the Project's biodiversity mitigation and management measures during the pre-construction / construction and operation phases that will be followed by the client and their contractors.

The BMP should:

- Clearly identify management measures to mitigate adverse impacts during pre-construction, construction, operation and closure phases
- Provide a description of the ecological monitoring and reporting commitments including location, frequency and key performance indicators for adaptive management. Where additional detail is required a Biodiversity Monitoring and Evaluation Plan (BMEP) can be developed
- Define roles and responsibilities
- Present the proposed schedule of works.

There will be much of the BMP that will be generic across all project components for example soil storage and sediment control. However, there may be some specific measures related to construction activities or features of interest.

For each identified impact the steps of the mitigation hierarchy will be applied so that adverse potential project-related impacts are avoided, minimised and restored or rehabilitated where feasible. The mitigation hierarchy is a framework for managing biodiversity and ecosystem services risks as well as direct and indirect project-related impacts to biodiversity receptors and important ecosystem services (CSBI, 2015).

A set of monitoring actions will be developed based on the avoidance and mitigation measures designed for the Project. Where possible, thresholds or key performance indicators will be established for each monitoring approach that will alert the Project that mitigation measures need to be adapted and revised biodiversity management measures are required.

An integral part of the BMP is the steps required for successful implementation which includes various actions including who is responsible for the actions described, what training is required to allow effective implementation and what the reporting commitments will be with regards to monitoring progress against the actions. A draft contents page for the BMP is included below.

Biodiversity Action Plan (BAP)

The aim of the BAP is to set out the actions that the project will undertake to achieve net gain in critical habitat and no net loss of natural habitat. The BAP will target specific fauna, flora and habitat identified as high risk and critical habitat. Actions will cover pre-construction and construction and will also extend into

operational phase and may be undertaken away from the project area, including the need to biodiversity offsetting if impacts cannot be managed adequately through avoidance, minimisation and compensation. A separate Biodiversity Offset Management Plan would be needed in this instance.

The BAP should:

- Identify critical and natural habitat
- Set out how the mitigation hierarchy has been applied to natural and critical habitat
- Present actions that will be taken to achieve no net loss and net gain as applicable
- Provide a description of the ecological monitoring and reporting commitments including location, frequency and key performance indicators for adaptive management. As above this can be provided in a separate BMEP document
- Define roles and responsibilities
- Set out how stakeholders will be engaged through the delivery of the BAP

The content on the BAP is similar to the BMP but focussed on those actions above and beyond those that will be carried out by contractors as part of their duties. The BAP is likely to focus on key areas or species that have been identified as requiring additional resources. Stakeholder consultation is an important part of the BAP process and will be integrated throughout the BAP development. A draft contents page for the BAP is included below. A BAMP template is attached as Annexe D.

TABLE 11-1: Draft Contents Page BMP

BMP	
1 INTRODUCTION	
	1.1 Overview 1.2 Project Description 1.3 The Project’s Approach to Biodiversity and Natural Resource Management 1.4 Scope 1.4.1 The Mitigation Hierarchy 1.4.2 Stakeholder Consultation and Engagement 1.5 Important Document Linkages
2 HABITATS AND SPECIES	
	2.1 Overview of The Biodiversity Characteristics Within the Project Development Area 2.2 Identification of Priority Habitats and Species
3 TARGETS AND ACTIONS FOR BIODIVERSITY MANAGEMENT	
	3.1 Overview of Project-related Impacts to Priority Habitats and Species and Other Biodiversity 3.2 Avoidance Measures 3.3 Mitigation and Minimisation Measures 3.4 Rehabilitation / Restoration Measures
4 MONITORING, EVALUATION AND ADAPTIVE MANAGEMENT	
5 IMPLEMENTATION	
	5.1 Roles and Responsibilities 5.1.1 Staff and Contractors 5.2 Capacity Building

BMP	
	<ul style="list-style-type: none"> 5.3 Procurement 5.4 Monitoring and Maintenance Works <ul style="list-style-type: none"> 5.4.1 Monitoring and Maintenance During Construction and Operation 5.5 Reporting Commitments 5.6 Updating the BMP 5.7 Performance Review and Auditing 5.9 Project Schedule
6 REFERENCES	
BAP	
1 INTRODUCTION	
	<ul style="list-style-type: none"> 1.1 Overview 1.2 Project Description 1.3 The Project's Approach to Biodiversity and Natural Resource Management 1.4 Scope <ul style="list-style-type: none"> 1.4.1 The Mitigation Hierarchy 1.4.2 Stakeholder Consultation and Engagement 1.5 Important Document Linkages
2 NATURAL AND CRITICAL HABITATS	
	<ul style="list-style-type: none"> 2.1 Overview of The Biodiversity Characteristics Within the Project Development Area 2.2 Identification of Critical Habitats and Species 2.3 Identification of Natural Habitat
3 TARGETS AND ACTIONS FOR BIODIVERSITY MANAGEMENT	
	<ul style="list-style-type: none"> 3.1 Overview of Project-related Impacts to Critical and Natural Habitat 3.2 Avoidance Measures 3.3 Mitigation and Minimisation Measures 3.4 Rehabilitation / Restoration Measures 3.5 Biodiversity Offsets
4 MONITORING, EVALUATION AND ADAPTIVE MANAGEMENT	
5 IMPLEMENTATION	
	<ul style="list-style-type: none"> 5.1 Roles and Responsibilities <ul style="list-style-type: none"> 5.1.1 Staff and Contractors 5.1.2 Involving stakeholders 5.2 Capacity Building 5.3 Procurement 5.4 Monitoring and Maintenance Works 5.5 Reporting Commitments 5.6 Updating the BMP 5.7 Performance Review and Auditing 5.9 Project Schedule
6 REFERENCES	

