



REPUBLIC OF GUINEA



**GREEN
CLIMATE
FUND**



**AFRICAN DEVELOPMENT BANK
GROUP**

**Staple Crops Processing Zones (SCPZ) Programme
Promoting Sustainable Agricultural Value Chains**

GUINEA

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

NOVEMBER 2020

ACRONYMS

ADB	African Development Bank
APT	Agricultural Processing Technology
APZ	Agro-Food Processing Zones
BGACE	Guinean Audit and Environmental Compliance Agency
BGEEE	Guinean Studies and Environmental Assessment Agency
CEDAW	Conventions on the Elimination of All Forms of Discrimination against Women
CFD	Land and Property Code
CILSS	Interstate Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNEDD	National Council for the Environment and Sustainable Development
CNGPSC	National Committee for the Management of Chemical Products and Substances
COP21	Paris Climate Agreement
CPSE	Prefectoral Committee on Environmental and Social Monitoring
CTAE	Technical Committee on Environmental Analysis
DNE	National Environment Directorate
DNEF	National Water and Forestry Directorate
DWS	Drinking water supply
ECC	Environmental Compliance Certificate
ECOWAS	Economic Community of West African States
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organisation of the United Nations
FESMP	Framework for Environmental and Social Management Plan
GCF	Green Climate Fund
GCO	Grassroots Community Organisation
GEF	Global Environment Facility
GPHC	General Population and Housing Census
Ha	Hectare
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
IGA	Income Generating Activities
IRAG	Institute of Agronomic Research of Guinea
IUCN	International Union for Conservation of Nature
LGAF	Land Governance Assessment Framework
LI	Labor Intensity
LPDSE	Energy Sector Development Policy Letter
MDGs	Millennium Development Goals
NBSAP	National Biodiversity Strategy and Action Plan
NTFPs	Non-Timber Forest Products
NGO	Non-Governmental Organisation
NRM	Natural Resource Management
NSDS	National Sustainable Development Strategy
OGUIPAR	Guinean Office of Parks and Reserves
PAFN	National Forest Action Plan
PANA	National Action Plan for Adaptation to Climate Change
PAN/LCD	National Action Programme to Combat Desertification
PAP	Project Affected Persons
PASANDAD	Accelerated Food and Nutrition Security and Sustainable Agricultural Development Plan
PNAE	National Environmental Action Plan
PNDA	National Agricultural Development Policy
PNDES	National Economic and Social Development Plan
PNDHD	National Program for Sustainable Human Development
PNG	National Gender Policy
PNIASAN	National Agricultural Investment and Food and Nutrition Security Plan
PNSA	National Programme for Food Security
PMU	Project Management Unit
RAP	Resettlement Action Plan

RPC	Relocation Policy Framework
SDAM	Mangrove Development Master Plan
SEA	Environmental and Social Assessment
SESA	Strategic Environmental and Social Assessment
SPFS	Special Programme for Food Security
TDs	Tender Documents
ToR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WWF	World Wildlife Fund or World Wildlife Fund for Nature
WHO	World Health Organisation
ZEEG	Guinea's Exclusive Economic Zone.

TABLE OF CONTENTS

NON-TECHNICAL SUMMARY	IX
1. INTRODUCTION.....	1
1.2 SCOPE AND OBJECTIVES OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)	2
1.3 CONTENTS OF THE STUDY	2
2. PROGRAMME DESCRIPTION AND RATIONALE.....	3
2.1 REMINDER OF OBJECTIVES.....	3
2.2 PROGRAMME COMPONENTS.....	3
2.3 IMPLEMENTATION MODALITIES	5
3. ANALYSIS OF THE LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK APPLICABLE TO THE PROGRAMME	6
3.1 NATIONAL ECONOMIC AND SOCIAL POLICIES RELATED TO THE PROGRAMME.....	6
3.2 ENVIRONMENTAL AND SOCIAL POLICY FRAMEWORK.....	6
3.2.1 THE NATIONAL ENVIRONMENTAL ACTION PLAN (PNAE)	7
3.2.2 THE NATIONAL PROGRAMME FOR SUSTAINABLE HUMAN DEVELOPMENT (PNDHD).....	7
3.2.3 THE NATIONAL STRATEGY ON BIOLOGICAL DIVERSITY FOR THE IMPLEMENTATION OF THE STRATEGIC PLAN (SNDB 2011 - 2020) AND AICHI OBJECTIVES IN GUINEE	7
3.2.4. THE MANGROVE DEVELOPMENT MASTER PLAN	8
3.2.5. DECENTRALISATION POLICY	8
3.2.6. FORESTRY POLICY	8
3.2.7. ENERGY POLICY	9
3.2.8. THE NATIONAL ACTION PLAN TO COMBAT DESERTIFICATION (NAP/CD).....	9
3.2.9. NATIONAL CLIMATE CHANGE ADAPTATION PLAN (NAPA).....	9
3.2.10. THE NATIONAL HEALTH DEVELOPMENT PLAN (PNDS, 2015-2024).....	10
3.3 NATIONAL GENDER POLICY (NGP)	10
3.4 NATIONAL ENVIRONMENTAL LEGISLATION ON THE PROGRAMME	11
3.4.1 THE CONSTITUTION OF 22 MARCH 2020.....	11
3.4.2 LAW L/2019/035/AN OF 4 JULY 2019 ON THE CIVIL CODE.....	11
3.4.3 LAW LN°/2019/0034/AN OF 4 JULY 2019 ON THE ENVIRONMENTAL CODE OF THE REPUBLIC OF GUINEA	11
3.4.4 ORDINANCE O/92/019/PRG/SGG OF 30 MARCH 1992 ON THE LAND AND STATE CODE (CFD) 12	
3.4.5 THE LAW OF 26 MARCH 2006 (REVISED IN 2017) ESTABLISHING THE COMMUNITIES CODE. 13	
3.4.6 L/2017/060/AN OF 12 DECEMBER 2017 ON THE FORESTRY CODE	14
3.4.7 LAW L/99/038/AN ADOPTING AND PROMULGATING THE WILDLIFE PROTECTION CODE AND HUNTING REGULATIONS.....	14
3.4.8 LAW L/94/005/CTRN OF 14 FEBRUARY 1994 ON THE WATER CODE.....	14
3.4.9 LAW L/95/51/CTRN OF 29 AUGUST 1995 ON THE PASTORAL CODE.....	15
3.4.10 LAW NUMBER L/2011/006/CNT OF 9 SEPTEMBER 2011 ESTABLISHING THE MINING CODE	15
3.4.11 THE LABOUR CODE LAW NO. L/2014/072/CNT/DECREE NO. 011/PRG/SGG/2014 OF 10 JANUARY 2014	16
3.4.12 JOINT ORDER NO. 93/8993/PRG/SGG OF 11 OCTOBER 1993 FIXING THE TECHNICAL NOMENCLATURE OF INSTALLATIONS CLASSIFIED FOR ENVIRONMENTAL PROTECTION.	16
3.4.13 ORDER NO. 95/6822/MAEF/SGG INSTITUTING THE PHYTOSANITARY CONTROL OF PLANTS ON IMPORT AND EXPORT IN THE REPUBLIC OF GUINEA	16
3.4.14 OTHER NATIONAL ENVIRONMENTAL PROTECTION TEXTS.....	17iv

3.5	DISCHARGES STANDARDS.....	18
3.6	ENVIRONMENTAL AND SOCIAL ASSESSMENT PROCEDURES.....	19
3.7	INSTITUTIONAL FRAMEWORK GOVERNING ENVIRONMENTAL AND SOCIAL ASSESSMENTS.....	22
3.8	PROJECT-RELATED INTERNATIONAL ENVIRONMENTAL LEGISLATION	22
3.9	SOCIO-ENVIRONMENTAL STANDARDS OF THE GREEN CLIMATE FUND (GCF)	26
3.10	AFDB ENVIRONMENTAL AND SOCIAL POLICIES APPLICABLE TO THE PROGRAMME.....	28
3.10.1	INTEGRATED SAFEGUARDS SYSTEM (ISS)	29
3.10.2	OPERATIONAL SAFEGUARD 1 (OS1): ENVIRONMENTAL AND SOCIAL ASSESSMENT	29
3.10.3	OPERATIONAL SAFEGUARD 2 (OS 2): INVOLUNTARY RESETTLEMENT: LAND ACQUISITION, POPULATION DISPLACEMENT AND COMPENSATION	29
3.10.4	OPERATIONAL SAFEGUARD 3: BIODIVERSITY AND ECOSYSTEM SERVICES	30
3.10.5	OPERATIONAL SAFEGUARD 4: POLLUTION PREVENTION AND CONTROL, HAZARDOUS MATERIALS AND RESOURCE EFFICIENCY	30
3.10.6	OPERATIONAL SAFEGUARD 5: WORKING CONDITIONS, HEALTH AND SAFETY	31
3.10.7	OTHER PROGRAMME ACTIVITY-RELATED COMMITMENTS AND RESPONSIBILITIES	31
3.10.8	TRANSPARENCY, GOOD GOVERNANCE AND INCLUSIVENESS	31
3.10.9	PROMOTION OF GENDER EQUALITY AND POVERTY REDUCTION	31
3.10.10	PROTECTION OF THE MOST VULNERABLE	31
3.10.11	COUNTRY-LEVEL COMPLAINT HANDLING AND REDRESS MECHANISM	32
3.10.12	INDEPENDENT REVIEW MECHANISM (IRM).....	32
3.10.13	GOODS HARMFUL TO THE ENVIRONMENT (NEGATIVE LIST).....	32
3.10.14	DISCLOSURE AND ACCESS TO INFORMATION POLICY (MAY 2013).....	33
3.10.15	INTEGRATED WATER RESOURCES MANAGEMENT POLICY (APRIL 2000).....	33
3.10.16	CONSOLIDATED CIVIL SOCIETY ENGAGEMENT FRAMEWORK (JULY 2012).....	33
3.11	COMPARISON BETWEEN AfDB POLICIES AND NATIONAL REGULATIONS	34
IV.	PROGRAMME ENVIRONMENT DESCRIPTION	35
4.1.	GENERAL FEATURES OF THE IMPACT AREA	35
4.1.1.	ECO-GEOGRAPHICAL FEATURES	35
4.1.2.	ENERGY SITUATION	42
4.1.3.	CLIMATE CHANGE IMPACT.....	42
4.1.4.	GENDER AND WOMEN’S EMPOWERMENT ASPECTS	44
4.1.5.	PROGRAMME-RELATED LAND ISSUE.....	46
4.2.	FEATURES OF PROGRAMME IMPACT AREAS	49
4.2.1	BOKÉ IMPACT AREA	51
4.2.1.1	MAIN FEATURES OF THE BOKÉ AREA.....	51
4.2.1.2	PROGRAMME-RELATED PRODUCTION SYSTEMS.....	53
4.2.2	KANKAN IMPACT AREA	54
4.2.2.1	MAIN CHARACTERISTICS OF THE AREA	54
4.2.2.2	PROGRAMME-RELATED PRODUCTION SYSTEMS.....	57
4.2.3	SUMMARY OF MAJOR ENVIRONMENTAL AND SOCIAL ISSUES	58
V.	CONSULTATIONS WITH STAKEHOLDERS	61
5.1.	METHODOLOGICAL APPROACH	62
5.2.	SUMMARIES OF CONSULTATIONS	62
5.3.	RECOMMENDATIONS/PERSPECTIVES	64
VI.	ANALYSIS OF THE VARIANTS.....	65
6.1.	ANALYSIS OF THE "WITHOUT PROJECT" SITUATION	65
6.2.	SITUATION “WITH PROJECT”	66
6.3.	VARIANT COMPARISON OUTCOMES.....	66
VII.	ANALYSIS AND ASSESSMENTS OF POTENTIAL OUTCOMES AND IMPACTS.....	67
7.1.	ANALYSIS AND MANAGEMENT OF MAJOR PROJECT RISKS.....	67
7.2.	PROGRAMME ACTIVITIES LIKELY TO GENERATE POTENTIAL IMPACTS	68
7.3.	ANALYSIS AND ASSESSMENT OF THE PROJECT’S POSITIVE IMPACTS	71
7.3.1	POTENTIAL IMPACTS OF THE PROGRAMME ON CLIMATE CHANGE	76
7.4.	ANALYSIS AND ASSESSMENT OF THE POTENTIAL NEGATIVE IMPACTS OF THE PROGRAMME.....	77
7.4.1	<i>Negative Impacts Common to Civil/Rural Works.....</i>	<i>78</i>

7.4.2	<i>Assessment of Common Potential Adverse Impacts on Biophysical and Human Environments</i>	79
7.4.3	<i>Potential Adverse Impacts of Hydraulic Structures and Hydro-agricultural Facilities</i>	81
7.4.4	<i>Potential Negative Impacts Linked to the Improvement of Agricultural Production Systems and Value Chains</i>	82
7.4.5	<i>Potential Adverse Impacts of Building Tracks</i>	84
7.4.6	<i>Potential Adverse Impacts due to Socio-economic Infrastructure Development</i>	85
7.4.7	<i>Potential Adverse Impact of Electrical Installations (LV/MV Lines)</i>	85
7.4.8	<i>Potential Adverse Impact Due to Solar Power Plant Construction</i>	85
7.5.	POTENTIAL CUMULATIVE OUTCOMES AND IMPACTS OF PROGRAMME ACTIVITIES	86
8.1.	OPTIMISATION AND ENHANCEMENT MEASURES OF THE POSITIVE IMPACTS AND COMPLEMENTARY INITIATIVES	88
8.2.	MITIGATION MEASURES OF POTENTIAL ADVERSE IMPACTS OF SUB-PROJECTS	88
8.2.1.	<i>Mitigation measures of potential adverse impacts of hydro-agricultural developments</i>	88
8.2.2.	<i>Mitigation Measures for Administrative Blocks and Housing Units</i>	90
8.2.3.	<i>Mitigation Measures on Tracks</i>	90
8.2.4.	<i>Mitigation Measures on Solar Power Plant</i>	92
8.2.5.	<i>Mitigation Measures on Socio-economic Infrastructure</i>	93
8.2.6.	<i>Mitigation and Impact Management Measures on Pesticides and Chemicals</i>	93
8.2.7.	<i>Good Environmental and Social Practices for the Works</i>	94
9.1.	SUMMARY OF KEY FESMP ACTIONS AND RESPONSIBILITIES	95
	NORMATIVE AND REGULATORY MEASURES	97
I.	COMPLIANCE WITH ENVIRONMENTAL REGULATIONS	97
II.	COMPLIANCE WITH FOREST REGULATIONS	97
III.	COMPLIANCE WITH LABOUR AND HYGIENE LEGISLATION	97
IV.	PROCEDURES TO BE FOLLOWED WHEN ARCHAEOLOGICAL REMAINS ARE DISCOVERED	97
9.2.	OBLIGATIONS TO COMPLY WITH ENVIRONMENTAL AND SOCIAL SPECIFICATIONS	98
VI.	ENVIRONMENTAL AND SOCIAL CLAUSES	98
9.3.	SPECIFIC MEASURES ON THE IMPACTS LIKELY TO RESULT IN A RESETTLEMENT PROCESS	98
9.4.	PROCEDURES AND RESPONSIBILITIES FOR FESMP IMPLEMENTATION	99
9.4.1.	INSTITUTIONAL ARRANGEMENTS FOR FESMP IMPLEMENTATION	99
9.4.2.	ENVIRONMENTAL AND SOCIAL SCREENING PROCESS	100
9.5.	MONITORING AND EVALUATION PROGRAMMES	107
I.	INDICATORS FOR MONITORING ENVIRONMENTAL MEASURES AND THE MONITORING SYSTEM	107
II.	REPORTING MECHANISM	113
9.6.	COMPLAINT HANDLING AND RESOLUTION MECHANISM	114
9.7.	CAPACITY BUILDING PROGRAMME	115
9.8.	COST OF ESMP MEASURES	117
9.9.	INDICATIVE IMPLEMENTATION SCHEDULE FOR ENVIRONMENTAL AND SOCIAL MEASURES AND REPORT PRODUCTION	118
X.	CONCLUSION	119
XI.	ANNEXES	121
	ANNEX 1: TERMS DE REFERENCE	121
	ANNEX 2: DATA ON THE CHARACTERISTICS OF THE PROGRAMME'S AREA OF INFLUENCE	124
	ANNEX 3: SCREENING FORM	130
	ANNEX 4: ENVIRONMENTAL AND SOCIAL CLAUSES	133
	ANNEX 5: CONSULTATION LISTS	143
	BIBLIOGRAPHY	145

TABLES

Table 1: Programme Components.....	Error! Bookmark not defined.
Table 2: Normative Texts (air pollution, waste water discharge and chemical exposure limits)	18
Table 3: Guinean Air Emission Standards.....	18
Table 4: Guinean Noise Standards	19
Table 5: Parameters of Water Discharge into the Natural Environment.....	19
Table 6: List of Some Wildlife Species Found in Guinea.....	Error! Bookmark not defined.
Table 7: Projected Population and Emissions 1994 to 2025	Error! Bookmark not defined.
Table 8: Carbon Stocks and their Value in Guinean Ecosystems 2014	Error! Bookmark not defined.
Table 9: Population/Surface Area Administrative Regions	Error! Bookmark not defined.
Table 10: Guinea's Demographic Indicators.....	Error! Bookmark not defined.
Table 11: Main Causes of Morbidity.....	Error! Bookmark not defined.
Table 12: Incidence of Water-Related Diseases.....	Error! Bookmark not defined.
Table 13: Trends in Cases of Vector-borne Diseases	Error! Bookmark not defined.
Table 14: Changes in Livestock Numbers (in thousands of herd).....	Error! Bookmark not defined.
Table 15: Changes in Fisheries Production.....	Error! Bookmark not defined.
Table 16: Guinea's IHDI in 2018	Error! Bookmark not defined.
Table 17: Household Living Conditions.....	Error! Bookmark not defined.
Table 18: Gender Development Index (GDI) of Guinea in 2018	44
Table 19: Population, Number of Households and Gender Distribution of the Zone's Population	49
Table 20: Climate Data Boké.....	52
Table 21: Boké Coastal, Marine and Island Ecosystems	52
Table 22: Kankan Climate Chart.....	56
Table 23: Trends in the Distribution of NPK 17 fertilisers (in tonnes).....	59
Table 24: Trends in the Distribution of Urea Fertilisers (in tonnes).....	59
Table 25: Phytosanitary Products Distributed by the State	59
Table 26: Water Status for the period 2011-2013 in mm.....	61
Table 27: Programme Components, Sub-Components and Activities.....	68
Table 28: Overall Assessment of Programme Activities	70
Table 29: Potential Positive Programme Impacts.....	73
Table 30: Summary of the Main Effects and Positive Impacts of the Main Project Activities	75
Table 31: Climate Change Impacts in Guinea.....	77
Table 32: Vulnerability of programme-related Sectors to Climate Shocks.....	Error! Bookmark not defined.
Table 33: Summary of the Negative Impacts, Construction of Structures and Hydro-agricultural Facilities	83
Table 34: Summary of the Potential Negative Impacts Building Tracks	84
Table 35: Summary of Potential Negative Impacts Solar Power Plant.....	85
Table 36: Analysis of the Potential Synergy Effects of Key Programme Activities.....	86
Table 37: Analysis and Evaluation of the Effects and Potential Negative Impacts of the Project on Different Components.....	Error! Bookmark not defined.
Table 38: Mitigation Measures on Potential Negative Impacts of Hydro-Agricultural Developments	89
Table 39: Mitigation Measures Building of Administrative Blocks and Housing.....	90
Table 40: Mitigation Measures for Tracks.....	91
Table 41: Mitigation Measures Solar Power Plant	93
Table 42: Socio-economic Infrastructure Mitigation Measures	93
Table 43:	Mitigation Measures on Pesticides and Chemicals
Table 44: Summary of Key Measures and Implementation Strategy	95
Table 45: Consideration of Environmental and Social Aspects during Implementation	Error! Bookmark not defined.
Table 46: Indicators for Monitoring the FESMP Measures	109
Table 47: Indicators and Monitoring System for Environmental and Social Components	109
Table 48: Some Indicators and Monitoring System	111
Table 49: Environmental and Social Monitoring and Surveillance Framework	112
Table 50: Building Capacity Measures.....	116
Table 51: ESMP Cost	118
Table 52: Indicative Timetable for the Implementation of Environmental and Social Measures	118
Table 53: Key Data on the Guinea River Basins (2016).....	124
Table 54: Rainfall Patterns in Guinea Regions	Error! Bookmark not defined.
Table 55: Number of Rainy Days by Region	Error! Bookmark not defined.
Table 56: Average Temperature/Region.....	124
Table 57: Changes in Monthly Maximum and Minimum Temperatures (°C) Boké	125
Table 58: Changes in Monthly Maximum and Minimum Temperatures (°C) Kankan.....	125
Table 59: Changes in Rainfall (mm) in Kankan and Boké Stations	126

Table 60: Changes in the Number of Days of Rain Boké and Kankan	126
Table 61: Prevailing Wind Speed in Boké and Kankan Stations	126
Table 62: Distribution of the Main Forest Domains by Natural Region.....	Error! Bookmark not defined.
Table 63: Categories and Characteristics of the Main Protected Areas in Guinea	126
Table 64: Basic Socio-demographic Data of Guinea.....	127
Table 65: Education and Literacy Indicators by Gender	128

FIGURES, MAPS AND PHOTOS

Map No. 1: Project Zone of Influence	Error! Bookmark not defined.
Map No. 2: Project Intervention Zones	Error! Bookmark not defined.
Figure 1: General ESIA Outline in Guinea (Order A/2013/474/MEEF/CA)	21
Figure 2: GCF's Eight Areas of Intervention	Error! Bookmark not defined.
Map No. 3: Regions of Guinea.	36
Map No. 4: Biophysical Conditions of the Project's Zone of Influence.....	36
Map No. 5: Hydrographic Networks.	37
Map No. 6: Watersheds and River Systems.	38
Map No. 7: Classified Forests.....	Error! Bookmark not defined.
Map No. 8: Protected Areas and Eco-regions.	Error! Bookmark not defined.
Map No 9: Characteristics of the Main Protected Areas in Guinea.....	Error! Bookmark not defined.
Figure 3: Emission by Sector (CO2 equivalent).....	43
Figure 4: Emission (CO2 equivalent) Total agriculture.....	43
Map No. 10: Distribution of Major Ethnic Groups in Guinea.....	Error! Bookmark not defined.
Map No. 11: Mining Potential.	Error! Bookmark not defined.
Map No. 12: Guinea's Hydro-Agricultural Potential (DNGR, 2009).	Error! Bookmark not defined.
Map No. 13: Agricultural Production Systems.....	Error! Bookmark not defined.
Map No. 14: Agricultural Development Pole in Guinea.....	Error! Bookmark not defined.
Map No. 15: Poverty Indicators Map by Region.	Error! Bookmark not defined.
Map No 16: Prevalence of Food Security.....	Error! Bookmark not defined.
Map No. 17: Location of Main Sites Likely to Host the Works.	51
Figure 5: Boké Climate Diagram	52
Map No. 18: Location of Main Sites Likely to Host the Works.....	53
Map No. 19: Characteristics of the Boké Zone.....	53
Figure 6 : Kankan Climate Diagram.....	56
Map No. 20 : Programme Impact Zone (Kankan).	
Map No. 21 : Characteristics of Kankan Zone.	58
Photos: Characteristics areas targeted by the programme.....	61
Photos: Public Consultations.	64

Non-Technical Summary

a. Background

Guinea requested the Bank's support for the implementation of the Staple Crops Processing Zones (SCPZ) Programme - Promoting Sustainable Agricultural Value Chains. In connection with the objectives of the programme, Guinea has significant natural resources and potentials, such as water, energy, agro-sylvo-pastoral, wildlife, fishing, etc. However, a significant proportion of the population still lives below the poverty line. Agricultural production is unable to cover the country's needs. For a very largely rural population (more than 70%), the small size of the cultivated areas and the low agricultural yields lead to impoverishment and food and nutrition insecurity for an overwhelming majority of the population. The Ebola epidemic (February 2014-1 June 2016), which claimed more than 2,500 lives, also affected the country's economy.

Through the AfDB, the Green Climate Fund (GCF) will also contribute to the financing of additional SCPZ activities. Activities targeted by the GCF aim at reducing greenhouse gas emissions, enhancing carbon sinks, and enhancing the resilience of communities and ecosystems to climate change impacts.

The SCPZ, which will contribute to the diversification and improvement of agricultural production and value chains, will generate considerable positive impact and effects on local and national development as well as on natural resources management. However, some activities are also likely to generate potential adverse impact on the biophysical and human environments, if prevention or mitigation measures are not considered.

To this end, both the AfDB and the GCF have adopted safeguard policies which are mechanisms for mainstreaming environmental and social concerns during the cycle of projects submitted for financing. The SCPZ was classified as Category 1 and had therefore undergone a Strategic Environmental and Social Assessment (SESA) in 2019. The introduction of additional Green Climate Fund activities means that SCPZ requires the development of an Environmental and Social Management Framework (ESMF) in order to minimise potential adverse impacts and effects, and to enhance the programme's benefits. Stemming from the consolidation of the SESA in 2019, the ESMF was developed in line with the policy and regulatory framework in force in the Republic of Guinea and the AfDB's environmental and social safeguard policies.

b. Objective of the Environmental and Social Management Framework (ESMF)

The ESMF is a tool for the establishment of an environmental and social selection process and for the determination of when their precision will be well known based on the extent and nature of their potential impacts, as well as the class of sub-projects or activities to be implemented. It also ensures that the selection, appraisal and approval of sub-projects and their implementation comply with environmental laws and regulations and the commitments of the country concerned, and are consistent with the Bank's environmental and social safeguard policies. In addition, the ESMF shall define the monitoring and surveillance framework, as well as the institutional measures and arrangements, possible capacity building needs and any other assistance to be provided before, during, and after the implementation of the programme.

However, it is important to point out that the ESMF does not replace the environmental impact assessments, however as a decision-making tool, it contributes significantly to the optimisation of development policies and programmes.

c. Brief Description of the Programme

SCPZ's objective is to help enhance food and nutrition security in Guinea through the emergence of agro-industrial clusters in the Regions of Upper and Lower Guinea, especially in the *prefectures* of Kankan and Boké. In agreement with the Green Climate Fund (GCF), it was included into the basic draft of new activities aimed at combating climate change. With an estimated overall cost of USD 90 million, SCPZ is structured around the following four components and sub-components:

Table: Components and Sub-components

Components	Sub-components
A.Support for Agro-Park Management Governance and Incentive Measures	A1. Establishment of a Governance System for the Management of APZs
	A2. Support to the Governance of the Management of APZs
B. Development of Agricultural Processing Support Infrastructure	B1. Construction of infrastructure for the development of the Boké & Kankan agro-parks
	B2. Infrastructure for aggregation and access to agricultural inputs and services
	B3. Support infrastructure for agricultural production
C. Support for key stakeholders in priority agricultural sectors	C1. Capacity building for agricultural producers
	C2. Capacity building for local communities
	C3. Strengthening central and decentralised services
D. Programme Management and Coordination	

d. Policy, Legal and Institutional Framework for Programme

The policy, economic, social, environmental, institutional and legal implications related to SCPZ's implementation cover several areas and sectors, ranging from economic and social planning, decentralisation, gender, environmental and natural resources management, climate change, etc. Several bodies and stakeholders concerned will be involved, directly or indirectly, in its implementation. The involvement of the AfDB and the GCF in the financing of the programme means that the SCPZ must also comply with their guidelines and policies.

Regarding national **economic and social policies** on the SCPZ, it is the “**Guinea 2040 Vision**” **document** adopted in April 2017, of which the National Economic and Social Development Plan (**PNDES, 2016-2020**) is the operationalisation tool, which sets out the country's development orientations. The SCPZ also integrates the objectives of the main rural development programmes which are: (i) National Agricultural Investment and Food Security Programme (PNIASAN), (ii) the Special Programme for Food Security (SPFS), the National Programme for Food Security (PNSA), (iii) the National Agricultural Development Policy (PNDA), (iv) Accelerated Programme for Food Security, Nutrition and Sustainable Agricultural (PASANDAD, 2017-2020), etc.

Similarly, in the field of environment, natural resource management and climate change, various sectoral strategies and policies, as well as the associated regulatory framework, have been developed in Guinea. These include the National Environmental Action Plan (PNAE), the National Sustainable Human Development Programme (PNDHD), the National Action Plan for Adaptation to Climate Change (PANA), the National Forestry Action Plan (PAFN), the National Action Programme to Combat Desertification (PAN/LCD), the National Strategy on Biological Diversity, the National Health Development Plan, decentralisation policies, forestry, etc.

With regard to **Gender**, Guinea has a National Gender Policy (PNG, 2012) that is being reviewed and the country has put in place a political and legal framework that guarantees the principle of equality between men and women (Constitution, Penal Code, Conventions on the Elimination of all Forms of Discrimination against Women (CEDAW) and on the Rights of the Child (CRC), Children's Code, law establishing a 30% quota for women on all electoral lists, etc.). The country has also ratified the main international and regional instruments on women's rights.

Guinea has also taken important legal and institutional measures to promote sustainable development. **Various laws and regulations** of global and sectoral scope have been adopted and promulgated in the field of environment and natural resources management.

In relation to the SCPZ, the Constitution of 22 March 2020 states the right to a healthy and sustainable environment. The Constitution and the Civil Code of 16 January 1996, guarantees the right to property, specifying that no one can be expropriated except in the legally established interest of all, and subject to fair and prior compensation. Law LN°/2019/0034/AN on the Environment Code of the Republic of Guinea establishes the fundamental principles of management and protection of the environment against all forms of degradation, pollution and nuisance. The Ministerial Order 2015/342/MIPMEPSP/CAB of 27 February 2015 sets the standards on air pollution, wastewater discharge and maximum exposure limits applicable in Guinea.

The study also highlighted the relevance of **various other legislative and regulatory texts** relating to land and state management, local communities, natural resource management, pastoralism, health and safety, phytosanitary control of plants, etc.

At the international level, Guinea has signed and/or ratified various conventions and treaties on the management and conservation of natural resources, wetlands, biological diversity; desertification, climate change, human and peoples' rights, the worst forms of child labour, etc..

With regard to **the Institutional Framework and environmental and social assessment procedures**, it is the **Ministry of Environment, Water and Forestry** (Decree of 26 May 2018) which among other missions has the responsibility for the design, development and coordination of the implementation of the government's policy on the environment. This Ministry depends on several *National Departments* (Environment, Guinean Office of Parks and Reserves (OGUIPAR), Sanitation and Quality of Life, and Water and Forestry), *Consultative Bodies* (National Council on the Environment and Sustainable Development (CNEDD); National Committee for the Management of Chemical Products and Substances (CNGPSC), and in the field of environmental and social assessments by the **Guinean Studies and Environmental Assessment Agency (BGEEE)**, established by Decree No. 2011/47 of 3/05/2011. At the level of **decentralised services (Provinces and Prefectures, Councils)**, the Ministry relies on the bodies responsible for the Environment and Water and Forestry.

Environmental and social assessment procedures in Guinea are mainly governed by Decree D/2019PRG/SGG of 26 July 2019 and Law LN°/2019/0034/AN of 04 July 2019 on the Environment Code, and Order No. A/2013/474/MEEF/CAB of 11 March 2013 on the General Guide on Environmental and Social Assessment.

e. Socio-environmental standards of the Green Climate Fund (GCF)

The Green Climate Fund (GCF), which is the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC), manages the risks and socio-

environmental aspects of the Projects/Programmes it finances through 5 mechanisms: (i) fiduciary standards for a sound use of resources; (ii) **socio-environmental standards** to limit damage to people and ecosystems; (iii) **gender policy** to ensure gender equity and equality; (iv) risk assessment to improve management; and (v) monitoring-evaluation of project/programme activities.

The GCF has also put in place a mechanism and rules to understand, assess and evaluate environmental and social risks related to projects/programmes, classifying them into **3 Risk Categories**: (i) **Category A or I1**: activities with significant potential for adverse environmental and social risks and/or impacts that are varied, irreversible, or unprecedented; (ii) **Category B or I2**: activities with limited potential for environmental and social risks and/or impacts that are few in number, well localised, largely reversible and easily addressed by mitigation measures; and (iii) **Category C or I3**: activities with minimal or no effect, environmental and social risks and/or adverse impacts.

The AfDB, which, in March 2016 received the GCF's accreditation to operate as an international implementing entity, is required to ensure the application of the performance standards issued by the GCF, which are fully consistent with the Bank's environmental and social policy.

f. AfDB Environmental and Social Policies Applicable to the Programme

The project's objectives are in line with the Bank's Ten-Year Strategy (2013-2022), as well as with the orientations of its new strategy in the agricultural sector which underscores value chain development and agricultural entrepreneurship.

The Integrated Safeguard Policy Statement (ISS) sets out the principles underpinning the Bank's safeguards approach and it is the AfDB's strategy for the promotion of socially inclusive and environmentally sustainable growth. The Bank has therefore adopted five (5) Operational Safeguards (OS). In line with the planned activities and the project context, the following **Operational Safeguards are likely to be triggered: OS1: Environmental and Social Assessment; (ii) OS2: Involuntary Resettlement (land acquisition, displacement and compensation); (iii) OS3: Biodiversity and Ecosystem Services; (iv) OS4: Prevention and Control of Pollution, Greenhouse Gases, Hazardous Materials and Resource Efficiency; (v) OS5: Working Conditions, Health and Safety.**

Other commitments and responsibilities relating to project activities include the Bank's compliance with the following principles: Transparency, good governance and inclusiveness; Promotion of gender equality and poverty reduction; Protection of the most vulnerable, accountability and information sharing in its operations, through its Policy on Dissemination and Access to Information (May 2013) etc. The Bank is also committed to ensuring that its clients establish strong and independent credible local complaint handling and redress mechanisms. It has also defined a list of environmentally harmful products (Negative List) excluded from its eligible operations, with which the client must comply.

g. Gender Aspects and Women's Empowerment

Women account for 52% of the Guinean population and a significant majority of youths (86.33%) are under 45 years, and 44.9% are less than 15, (GPHC3, 2014). According to the 2013 PNIASA report, on average, 144 women for 100 men are active in agriculture.

However, women are largely under-represented in the administration, especially in decision-making positions. Despite the law establishing a 30% quota on all electoral lists, only 25

women were elected to the National Assembly, that is 19.20%. The primary school enrolment rate is 81% for boys and 69% for girls, 23% in secondary school and 6% in tertiary education, compared with 37% and 14% respectively for men (CGGR, 2015). The literacy rate for men (44%) is double that of women (22%). The literacy rate in urban areas (55%) is three times higher than that in rural areas (18%).

According to the findings of the National Survey on Gender-based Violence in Guinea (EVBG, 2016), eight out of ten women suffered some form of violence in 2016, compared to nine out of ten women in 2009. Female genital mutilation/excision (FGM/E) and early marriages continue due to entrenched cultural traditions. Guinean law sets the legal marriage age for girls at 17. In 2016, more than one in five girls (21%¹) got married before the age of 15, and more than half (55%) before the age of 18 (64% in rural areas and 70% in households in the poorest economic quintile).

However, regarding access to information technology, in 2016, about four out of five Guineans (79.1%) had a mobile phone, 8.3% of whom had a smartphone. Fewer than one in ten (8%) 15-24 year-old girls (8%) have ever used a computer. Nearly one in five young women (15-24 years) (19.4%) has already used the internet.

h. Characteristics of the programme's impact areas

The country is divided into four natural regions: Lower Guinea or Maritime Guinea, Middle Guinea, Upper Guinea and Forest Guinea. The two areas targeted by the programme are located in the prefectures of Kankan and Boké.

The Boké area is located in **Maritime Guinea**. It consists of a plateau sub-zone and the coastal sub-zone. With the presence of the Atlantic coast, this zone constitutes the alluvial basin of important coastal rivers and mangrove formations. The climate is Sudano-Guinean type (2513 mm average rainfall). Regarding the Kankan Department, located in Upper Guinea, it is a region of plains and savannas, and it is also Guinea's most arid zone. The premises of a Sudano-Sahelian climate are emerging in this zone, with rainfall ranging between 1,200 and 1800 mm.

The targeted zones have significant resources and potential for multiple economic activities (agriculture, animal breeding, fisheries, forestry, mining, etc.). Broadly speaking, agriculture is the population's main sector of activity. The farming system, dominated by slash-and-burn agriculture, is characterised by a low rate of use of agricultural inputs (fertilisers, phytosanitary products, improved seeds), poor water control, weak production and marketing channels, etc. Livestock farming system is extensive and relies mainly on natural pastures.

Despite these significant resources and potential, the incidence of poverty and malnutrition is still high.

i. Summary of major environmental and social challenges in target areas

Both target areas are rich in natural resources, consisting of vast areas of forests, wildlife reserves, plains, valleys, a dense hydrographic network, and a mineral-rich subsoil. However, these natural environments are facing various threats due to climate change, especially anthropic action through extensive agriculture, bush fires, logging, carbonisation, indiscriminate fishing and hunting, inappropriate mineral exploitation, etc. There are almost no significant dense forests left outside certain protected areas that are still relatively well conserved.

¹ Source: National survey on gender-based violence in Guinea, Ministry of Social Action, Women's Empowerment and Children, 2016

The lack of operational land use and development plans leads to multiple conflicts in the use of space and natural resources. The system of pastoral livestock farming practised and the transhumance of herds are sources of conflict between farmer-herders, between herders and the administration, etc. Mining as practiced, affects ecosystems and the population's health.

Regarding the occurrence of extreme natural phenomena and natural disasters, 8 violent winds were recorded in the Boké region, and 39 floods in the Kankan region, between 2011 and 2015.

j. Stakeholders Consultation

Through a participatory and inclusive approach, a process of consultation with different programme stakeholders was initiated from the formulation and evaluation phases of the programme, and during the preparation of the Environmental and Social Study. These consultations targeted political and administrative authorities; officials of technical structures at the central level, and then continued to the targeted areas, with the authorities, decentralised technical services, producers' organisations, women's groups, the population, etc.

The main finding was that the planned activities are fully in line with the concerns and expectations of the various stakeholders met. The programme's key positive impact identified during the consultations relates to activity diversification opportunities, increase in incomes, expansion of access to socio-economic equipment and infrastructure, poverty and unemployment reduction, reduction of youth mass exodus, etc.

It also emerged that land management is a major concern, a source of recurrent disputes and conflicts between users and administrative and technical services. Carbonisation and the cutting of firewood cause the destruction of forests. Wildlife poaching has led to the disappearance of several animal species such as elephants and forest species.

Gender and women's empowerment support services and women's organisations have in the past reported difficulties in enjoying the benefits of the projects implemented in the area, heavy workloads, low agricultural yields and production, low representation in decision-making bodies, difficulties in having loans and agricultural bodies, conservation challenges, product processing and sale, etc.

The potential adverse impacts pointed out concern the risk of increased pressure on farm lands, the risk of land conflicts with the establishment of perimeters, conflicts between farmers and livestock breeders, the proliferation of diseases with the development of perimeters, the risks linked to the use of fertilisers and phytosanitary products, etc.

The following measures and recommendations were made: informing and raising the awareness of all stakeholders on programme content on the targeted sites, etc.; making local populations benefit from the programme's spin-overs, a strong involvement of local authorities and local customary chiefs, as well as setting up operational consultation frameworks, etc.

k. Main environmental and social impacts

Overall, the activities of the different components will have major positive impacts. On the other hand, sub-components *B1, construction of infrastructure for the development of agro-parks, B2, Infrastructure for aggregation and access to agricultural inputs and services and B3 Infrastructures to support agricultural production*, given their nature, are projects likely to have a significant negative impact on the environment, due to site development and road works, works to bring in the LV and MV power line, hydro-agricultural developments on the plains and in the lowlands, basic infrastructure, and track rehabilitation works. However, the

additional activities of the GCF will have major positive impacts on the environment and very little negative impact.

- **Impacts on climate change**

The planned activities do not pose any climate risks. Some of them will help enhance the resilience of ecosystems and communities against climate change, through sound water management, improvement of production systems, reduction of extensive slash and burn, application of good agricultural practices, reforestation and agroforestry actions, etc.

The SCPZ will build hydraulic equipment for optimal water management, and promote the dissemination and extension of high-yield and short-cycle crops, as well as drought-resistant forest and agro-forestry species, allowing a reduction in CO₂ emissions through the carbon accumulation in the soil. The extension of improved sources and the installation of solar power plants and biogas bio-digesters will help generate fuel savings, leading to gains in CO₂ emissions.

- **Potential negative impact**

In general, civil/rural engineering activities will generate potential adverse impacts on the biophysical and human environments. Their implementation and operation could lead to deforestation, loss of land, assets and access to resources, risks of water and soil pollution by solid and liquid wastes, inconvenience to the natural environment, conflicts, etc.

I. Enhancement and Impact Mitigation

Generally, the most significant negative impacts could be avoided or greatly reduced with the application of good practices, appropriate safety, hygiene and waste management measures, compensation in the event of expropriation, stakeholder involvement, etc.

The core programme has provided for various activities that can make it possible to enhance the programme's positive impacts and mitigate its potential negative impacts, including the following: (i) the Support for the Preparation of land law enforcement texts and the operationalisation of the single land window; (ii) the Capacity Building Programme; (iii) the Natural Habitat Restoration and Protection Programme; (iii) the Production of Improved Stoves (fight against deforestation); (iv) Capacity Building for Women and Youths in Processing and Nutritional Education; (v) Support for the Implementation of Income Generating Activities (IGAs); (vi) Preparation of a Manual of Good Environmental Practices, etc.. In addition to these measures, there are also the additional GCF activities on renewable energy and the extension of resilient agricultural practices.

Other recommendations and enhancement and mitigation measures were also made during consultations with programme stakeholders. They concern the establishment of functional consultation frameworks and an appropriate conflict and dispute management mechanism; the building of producers' capacities in the use of phytosanitary products (pesticide management); the formulation and the implementation of an appropriate information and sensitisation programme, etc.

m. Framework for Environmental and Social Management Plan (FESMP)

The FESMP defined an environmental and social selection procedure and institutional responsibilities for the preparation, approval and implementation of the activities to be implemented, the monitoring and surveillance framework, as well as the institutional measures and arrangements, capacity building needs, and other assistance to be provided before, during and after the implementation of the programme.

Table: Summary of the mainstreaming of environmental and social aspects during implementation

No	Phases/Activities	Responsible	Support/ Collaboration	Service Provider	ADB Notice
1	Identification of the location/sites and technical characteristic studies of the sub-project	Decentralised Technical Services (DTS)	PMU	Consultant Engineer (C E)	
2	Completion of the initial environmental and social analysis form, classification and determination of the type of specific safeguard instrument (ESIA, EIAN, RAP)	Environmental Assessment Expert (EAE) and Social Assessment Expert (SAE) of the PMU	BGACE	-	
3	Categorisation approval	BGACE	PMU's ESAE		Yes
4	<u>If an EIA/EIAN, RAP... is necessary</u>				
4.1	Preparation, approval and publication of ToRs	PMU's EAE & SAE	BGACE		Yes
4.2	Conducting the study	Consultant	Procurement Officer (PO)	-	
4.3	Validation of the document and obtaining the environmental certificate	BGACE	SESA	Technical Committee on Environmental Analysis	Yes
4.4	Publication of the document	EAE & SAE	PMU	Media	
5	<u>If an EIA/EIAN, RAP... is not necessary</u>				
5.1	Selection and application of simple mitigation measures	PMU's EAE	Decentralised technical services	Consulting firm	
5.2	(i) Inclusion in the bidding documents (DDs) of the sub-project, environmental and social clauses and other mitigation measures	PMU's PO	EAE & SAE + Environmental Technical Services	CE +Consulting firm	
6	Internal monitoring of the implementation of E&S measures	RHSSE of the corporation	Technical Services	IC	
6.1	Dissemination of the internal monitoring report	PMU	RHSSE of the consulting firm	-	
7	Environmental and social monitoring	PMU's EAE & SAE	Decentralised technical services	Analytical laboratories/specialised centers + NGOs	
8.	Supervision of the implementation of the Programme's E&S measures	AfDB E&S Supervision MissionD	PMU's ESAE	-	Oui
9.	Building stakeholders' capacity for E&S implementation	EAE &SAE	Technical Services	<ul style="list-style-type: none"> • Consultants • Competent public structures • NGO 	
10.	Audit of the implementation of E&S measures	Consultant	<ul style="list-style-type: none"> • PO+ BGACE • Local Authorities 	-	Yes

During implementation, this mechanism will be supported by various measures, including the establishment of consultation frameworks and complaint handling mechanisms, the development and implementation of an information and sensitisation programme, a capacity building programme, etc.

n. Costs of ESMF measures

Certain measures had already been taken into account in the programme costs. Other mitigation measures of the FESMP, such as the application of environmental and social good and measures, will be included in the bidding documents (BDs) and the firms will be obliged to implement them under the supervision of the control office and the Project Management Unit (PMU). The PMU's estimated costs will mainly cover environmental and social measures not taken into consideration by the programme and BDs.

They are as follows:

- Establishment of consultation frameworks and complaint handling mechanisms;
- Formulation and implementation of a waterborne disease control programme/ STI/HIV/AIDS sensitisation programme
- Development and implementation of a capacity building programme in the areas of (i) environmental and social assessments; and (ii) pesticide management;
- Development and implementation of an information and sensitisation programme;
- Provision for the development of ESIAs, and potential RAPs;
- Support for monitoring the implementation of the FESMP; and
- Environmental Audit/Mid-term and Final Evaluation.

The overall cost of the ESMP is estimated at **USD 1,300,000**.

The implementation of the FESMP will be validated by the production of periodic monitoring and surveillance reports, but also evaluation and supervision reports by the various stakeholders and structures involved in its implementation.

1. INTRODUCTION

1.1. Study Context and Objectives

The Staple Crops Processing Zones (SCPZ) for Boké and Kankan will be implemented in the Republic of Guinea, a country with huge natural resources and potential, particularly in water, mining, energy, agro-sylvo-pastoral, fauna and fisheries.

Considered the “water tower of West Africa”, the main major West African rivers have their source in Guinea (Niger, Bafing, Senegal, Konkouré, etc.). The country has significant reserves of groundwater and surface water with a hydrographic network of more than 6,500 km; a potential of 6,200,000 ha of arable land (only 25% of which is exploited almost essentially for rain-fed farming); 364,000 ha of irrigable land, 81,000 ha of which is developed.

According to the results of the 2014 General Population and Housing Census (GPHC3), despite these significant resources and potential, the incidence of poverty is still high, especially in rural areas (68.7%, 33.1% of which in urban areas, compared with 87.7% in rural areas). The country’s HDI stood at 0.466² (0.413 for women and 0.513 for men) in 2018, placing the country in the “low human development” category, ranking 174th out of 189 countries.

Development policies tended to favour the mining sector to the detriment of other sectors of activity, especially agriculture (plant and animal production, fishing and forestry), the main sector of activity that employs more than 70% of the country’s working population, while the mining sector employs only about 2% of this population.

Agricultural production is unable to cover the country’s needs. The low level of exploited areas and agricultural yields leads to impoverishment, causing food and nutrition insecurity for the majority of the population. The prevalence of overall chronic malnutrition³ at the national level is 37.5% among children aged 0-59 months, of which 22.1% is severe chronic malnutrition. The Ebola epidemic (February 2014 - 1 June 2016), which caused more than 2,500 deaths, also affected the country’s economy.

To reverse this trend and stimulate sustainable development, the government undertook numerous initiatives and strategies in the field of rural development. It is in this context that Guinea requested Bank support for the implementation of major Staple Crop Processing Zones (SCPZ) Development Programme. Through the AfDB, the Green Climate Fund (GCF) will also contribute to the financing of additional SCPZ climate change activities.

Climate financing aims at reducing greenhouse gas emissions, enhance carbon sinks, and strengthen the resilience of human and ecological systems to the adverse impact of climate change.

The SCPZ will therefore generate considerable positive impact and effects. Project activities will have significant impact on local and national development, and on natural resource management.

The improvement of agricultural productivity, the development of production support infrastructure and activities to strengthen the resilience of communities and ecosystems against climate change will help to improve the people’s living conditions and the preservation of the natural environment.

² Source: Human Development Index Report, Guinea (UNDP 2019)

³ Source: Survey on the state of food and nutrition security in the Republic of Guinea (ANANA, 2017)

However, despite such considerable positive impacts, certain activities (hydro-agricultural developments, construction of tracks, infrastructure, processing units, etc.) are likely to cause a potential adverse impact on the biophysical and human environments, if prevention, correction or mitigation measures are not taken into consideration.

Both the AfDB and the GCF have safeguard policies that are mechanisms for integrating environmental and social concerns during the project cycle. The SCPZ, was classified as Category 1 and therefore underwent a Strategic Environmental and Social Assessment (SESA) in 2019. The introduction of additional activities by the Green Climate Fund means that SCPZ requires the development of an Environmental and Social Management Framework (ESMF) in order to minimise potential adverse impacts and effects, and to enhance the benefits of the programme. The ESMF, resulting from the consolidation of the SESA in 2019, has been developed in accordance with the policy and regulatory framework in force in the Republic of Guinea, and the AfDB's environmental and social safeguard policies.

1.2 Scope and objectives of the Environmental and Social Management Framework (ESMF)

Host sites have not yet defined and the activities and sub-activities of the programme components have not yet been clearly defined. The ESMF, which applies to the very early stages of the formulation of development programmes and projects, provides guidelines on the preparation of Environmental and Social Impact Assessments (ESIA) to be carried out once the detailed pre-project studies have been completed (site or route and project design defined, etc.).

The ESIA is therefore a tool for establishing an environmental and social selection process and for determining, when their accuracy is well known, according to the scale and nature of their potential impact and the class of sub-projects or activities to be implemented. It provides the information which determines whether to conduct an ESIA or simply apply impact mitigation measures to each activity or sub-project, or to implement the sub-project without any particular study or action.

The ESMF also ensures that the selection, appraisal and approval of sub-projects and their implementation comply with environmental laws and regulations and the commitments of the country concerned, and are in line with the Bank's environmental and social safeguard policies. In addition, the ESMF defines the monitoring and surveillance framework, as well as the institutional measures and arrangements, capacity building needs and other assistance to be provided before, during and after the implementation of the programme.

1.3 Contents of the study

The study led to the preparation of an Environmental and Social Management Framework (ESMF) in which: (i) the context of the study has been defined; (ii) the description of the programme done; (iii) the applicable legal and regulatory framework for environmental and social management has been analysed; (iv) the dynamics of the biophysical and socio-economic characteristics of the project's zones of influence and impact have been described and analysed; (v) the different types of potential impacts of the programme's interventions have been identified and analysed; (vi) the enhancement, mitigation and/or compensation measures defined, and their implementation costs assessed in an ESMF which also determined: the roles and responsibilities of the various entities involved in the implementation; an analysis and screening procedure; an environmental monitoring and surveillance plan, monitoring and evaluation modalities, capacity building needs, an implementation budget, etc.

2. PROGRAMME DESCRIPTION AND RATIONALE

2.1 Reminder of Objectives

Under the National Agricultural Investment and Food and Nutrition Security Plan (PNIASAN), the Government, in close collaboration with the Bank, sets out to implement a programme to transform the agricultural sector, using the Agro-Industrial Processing Zone (APZ) approach.

The Bank has granted the Government's request for the preparation of the study of the first two (2) APZs in Upper Guinea and Maritime Guinea, in the prefectures of Kankan and Boké, respectively. The APZ programme in Guinea is in line with the Bank's new strategy for agricultural transformation "Feed Africa" 2016-2025, which is itself part of the High 5s, and is in line with other Bank strategic priorities.

The project will be conceived as an agriculture-based spatial development initiative which concentrates agricultural processing activities in the regions targeted as areas with high agricultural potential, with a view to boosting productivity and integrating the production, processing and marketing of agricultural products such as sesame, rice, maize, *fonio*, vegetable crops, mangoes, cashew nuts, etc.

The programme will focus on improving productivity through Technologies for African Agricultural Transformation (TAAT), reducing post-harvest losses (PHL), promoting agricultural value chains (AVC) through agro-processing, food and nutrition security, and improving processed products through market development and marketing.

These APZ projects will have to be accompanied by the development of agricultural training to integrate the critical mass of local knowledge and economic and social development, as well as ensure sectoral integration through the rehabilitation/construction of structural infrastructure (roads, electricity, drinking water, facilities and sanitation, information and communication technology/ICT, basic social infrastructure - schools/health centres, etc.). These investments will rely on local communities to consolidate the profitability and sustainability of their operations by involving them in their processing and marketing activities.

The project's sector objective is to help increase food and nutrition security. **The specific objective** is to contribute to the emergence of agro-industrial clusters in the regions of Upper and Lower Guinea through the stimulation of promising agro-sylvo-pastoral sectors and the increased involvement of the private sector, as the leader of the process of driving the APZs, with young people and women, as beneficiaries and key players in the success of this initiative.

2.2 Programme Components

The SCPZ consists of the following four (4) components: (i) Support for Governance and Incentive Measures; (ii) Development of Support Infrastructure for Agricultural Transformation; (iii) Support for Key Stakeholders in Priority Agricultural Sectors; (iv) Programme Coordination and Management.

Table 1 below describes programme components and sub-components.

Table 1: Programme Components

cI No.	Component	Total Estimated Cost	Description of Components
A.	Support for Governance and Incentives for the Management of Agro-Parks	USD 12.74 million (15%)	<p>A1. Establishment of a governance system for the management in the Agro-Industrial Processing Zones (APZ)</p> <ul style="list-style-type: none"> • Support for the establishment of agro-industrial platforms (Agro-parks) • Support for the preparation of the specifications of the agro-parks • Feasibility study of new APZs in Guinea <p>A2. Support to the APZ Management Governance</p> <ul style="list-style-type: none"> • Support for the drafting of implementing texts of the Land Law and operationalisation of the land one-stop office • Support for the drawing up of the Legal, Regulatory and Operational Framework for Strategic Environmental and Social Assessment (SESA) • Support to the structures in charge of quality standards and norms as well as the strengthening of foodstuffs with micronutrients. • Technical assistance for the implementation of measures to promote private investment in agro-parks (instruments, incentives, etc.) • Holding of fora to promote APZ investments.
B.	Development of Support Infrastructures for Agricultural Transformation	USD 46.76 million (55%)	<p>B1. Development of Infrastructure for the development of the Boké & Kankan agro-parks:</p> <ul style="list-style-type: none"> • Site development works & VRD (roads, DWS, sanitation, electricity, telecom, fencing, etc.), DWS station, STEP, etc. • Construction of buildings: (i) Administrative and residential block; (ii) Services block (training centre, conference centre, laboratories, etc.); (iii) Socio-collective infrastructure block (school, health centre, guest house, etc.); • Works to install the LV & MV power line and the telecom fibre on the site. • Assistance in setting up a business incubator (service provider) • Studies on the implementation, control and monitoring of works <p>B2. Infrastructure for aggregation and access to agricultural inputs and services</p> <ul style="list-style-type: none"> • Developing basic infrastructure for 14 Agricultural Processing Aggregation Center (CTAs) located in 14 village-centres covering the 3 agricultural production zones (irrigated, lowland, under-rain): • Technical studies; • Construction work; • Equipment procurement; • Detailed preliminary design study of main (150 km) and secondary (65 km) tracks; • Rehabilitation works on the main track (115 km) including related works; and • Studies on the implementation, control and monitoring of the works. <p>B3. Support infrastructure for agricultural production</p> <ul style="list-style-type: none"> • Works for the implementation of hydraulic works (small water reservoirs for agricultural and industrial use); • Agricultural development works in areas to be developed (about 20,000 ha) • Studies for the implementation, control and monitoring of the works
C.	Support to Key Stakeholders in Priority Agricultural Sectors	USD 18.69 million (22%)	<ul style="list-style-type: none"> • C1. Capacity building for agricultural producers (with Foundation) • Structuring the sectors (fonio, rice, maize, soya, sesame, cashew nuts, oil palm, small ruminants and broiler chicken) into a network and developing consultation frameworks; • Reinforcement of the technical and management capacities of the 14 CTAs in the villages located in the 3 agricultural zones (irrigated, lowland and under-rainfall);

clNo.	Component	Total Estimated Cost	Description of Components
			<ul style="list-style-type: none"> Setting up information systems for use by Agricultural Production Organisations (APOs) (e-farmers, e-aggregation, e-inputs, e-services, etc.). Strengthening access to financing for public takeover bids (guarantee funds). <p>C2. Capacity building of local communities</p> <ul style="list-style-type: none"> Restoration and protection of the natural habitat around developments and other infrastructure; Production of 6,500 improved sources (fight against deforestation,) Promotion of renewable and alternative energy sources (4,251 kW of solar energy; installation of 4.13 MW of energy from biogas or about 9,911 m³ of biogas bio digester, etc.) Extension of irrigation technologies powered by solar pump (780 kW to operate 11,810 ha) Promoting climate-resilient farming practices; Promotion of agro-forestry practices/sustainable forest management (about 10,000 ha) Facilitating access to civil status documents (especially for women and youth) Capacity building for women and youth in transformation and nutrition education Support for the implementation of priority micro-projects for pilot CTAs <p>C3. Strengthening central and decentralised services</p> <ul style="list-style-type: none"> Implementation of safeguard measures: (i) Drawing up of a Manual of Good Environmental Practices; (ii) implementation of the ESMP monitoring plan and Pesticide Management Plan; (iii) environmental and social baseline situation Monitoring of the implementation of the Environmental and Social Management Plan (ESMP).
D.	Programme Management and Coordination	USD 6.80 million (8%)	(i) Coordination of project activities, (ii) administrative, accounting and financial management; (iii) procurement of goods, works and services; (iv) design of a communication plan; and (v) monitoring-evaluation of project implementation.

2.3 Implementation Modalities

A Project Management Unit (PMU) will be established within the Department of Planning of the Ministry of Agriculture and Rural Development. However, the project will be implemented in close collaboration with the other ministries concerned (animal resources and fisheries, industry, infrastructure, energy, NICT, trade, etc.), intervening in some priority link of the agricultural value chains driven by the project. The PMU will be primarily responsible for the coordination, monitoring and control of project activities. It will be composed as follows: (i) a Project Coordinator; (ii) an Internal Monitoring and Evaluation Specialist; (iii) an Agro-industry Specialist; (iv) a Procurement Specialist; (v) a Head of Administration and Finance; and (vi) an Accountant. In the field, the PMU will rely on the Regional Directorates of Agriculture in Boké and Kankan to implement activities. The PMU will also be supported by technical assistance (international and national consultants) on an ad hoc basis.

3. ANALYSIS OF THE LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK APPLICABLE TO THE PROGRAMME

In the Republic of Guinea, the political, economic, social, environmental, institutional and legal implications related to the implementation of the SCPZ cover several areas and sectors, ranging from economic and social planning, decentralisation, gender aspects, environmental and natural resource management, climate change, etc. The project will be implemented in the Republic of Guinea. Several structures and stakeholders at different levels will be involved directly or indirectly in its implementation.

The programme will comply with the guidelines and policies of technical and financial partners like the AfDB and the GCF.

3.1 National economic and social policies related to the programme

The SCPZ's objectives are in line with those set out in the “**Guinea Vision 2040**” document adopted in April 2017 which outlines the country's development orientations. The National Economic and Social Development Plan (**PNDES, 2016-2020**), designed to operationalise “**Guinea Vision 2040**”, document is the result of merging different sector strategies being implemented in the country. The **PNDES** flows from the 2011-2015 Five Year Plan, and three Poverty Reduction Strategy Papers (PRSPs), the last of which came to an end in 2015.

Through the **PNDES**, the authorities seek to respond to the various development challenges posed by the country's socio-economic and environmental situation, while ensuring post-Ebola health monitoring. The **PNDES** is also in line with certain international development agendas, including, among others, the Sustainable Development Goals (SDGs), the Paris Agreement, the African Union (AU) Agenda 2063, the Economic Community of West African States (ECOWAS) Vision 2020, etc.

The SCPZ is therefore in line with the **PNDES** which, on the whole, aims at “promoting strong, quality growth to improve the well-being of Guineans; bringing about the structural transformation of the economy, while putting the country on a sustainable development trajectory”.

Regarding impact, the final result should lead to: (i) an increase in Guinea's Human Development Index (HDI) from 0.411 in 2014 to at least 0.482 by 2020; (ii) a reduction in the incidence of poverty by at least 10 points by 2020; (iii) a reduction in the GINI index from 0.317 in 2012 to 0.250 in 2020; and (iv) a reversal of the downward trend in forest cover from 25.9% in 2014 to 28% in 2020.

Regarding rural development, SCPZ integrates the sector objectives of the National Agricultural Investment and Food and Nutrition Security Plan (PNIASAN), the Special Programme for Food Security (PSSA), the National Food Security Programme (PNSA), the National Agricultural Development Policy (PNDA), Accelerated Food and Nutrition Security and Sustainable Agricultural Development Plan (**PASANDAD**), etc.

3.2 Environmental and social policy framework

The objective of the project is to help increase food and nutritional security through the development of infrastructure to support agricultural production and processing, improving productivity and boosting the agro-sylvo-pastoral sector. In relation to the planned activities

that will have an impact on the biophysical and socio-economic components of the targeted areas, various sector strategies and policies relating to the environment and natural resources management have been developed in Guinea.

The main objective of these policies and strategies, as well as the associated regulatory framework, is to ensure rational and sustainable management of space and natural resources; to organise, regulate, prevent and manage conflicts related to their use (land, water, grazing, forestry, etc.). These include: National Environmental Action Plan (PNAE), the National Action Plan for Adaptation to Climate Change (PANA); the National Forest Action Plan (PAFN); the National Action Programme to Combat Desertification (PAN/LCD); the National Strategy and Action Plan for the Conservation and Sustainable use of Biological Diversity; the Master Plan for Mangrove Management (SDAM), etc.

3.2.1 The National Environmental Action Plan (PNAE)

The PNAE forms the basis for Guinea's environmental policy. It is the benchmark framework to facilitate the implementation of a participatory policy for the sustainable management of natural resources and environmental protection. The fundamental principle underlying the PNAE is the integration of the environmental dimension into Guinea's economic and social development policies with two main objectives, the rational and sustainable management of natural resources and the definition or strengthening of sector policies.

The PNAE therefore aims at: (i) improving the living conditions; (ii) developing rare biodiversity and cultural resources and, more generally, ensure rational management of all natural resources, including marine resources; (iii) preventing major risks, not only climatic, but also relating to human activities in both urban and rural areas; (iv) organising mining and industrial development and ensuring better control and ad hoc prevention of pollution.

3.2.2 The National Programme for Sustainable Human Development (PNDHD)

In 1997, Guinea drew up its first national report on sustainable human development based on national concerns and priorities, namely: governance and participation, access to basic social services, human resources capacity building, environmental protection and management, and the fight against poverty in the broadest sense.

The project will help to achieve PNDHD objectives. The building of producers' capacity, the increase in agricultural production, the diversification of activities, the improvement of the level of access to infrastructure and socio-economic equipment, will help to improve the populations' living conditions.

3.2.3 The National Strategy on Biological Diversity for the Implementation of the Strategic Plan (SNDB 2011 - 2020) and AICHI objectives in Guinea

Like many countries, Guinea actively participated in the design and negotiation of the Convention on Biological Diversity, which it signed in Rio in June 1992 and ratified on 7 May 1993. The national commitments and objectives were included in the National Strategy and Action Plan adopted by the Government in 2001. A new strategy was drawn up in 2010 with the of preserving, increasing, restoring and enhancing bio-diversity throughout the country.

The SNPAB 2011-2020 highlights the root causes of biodiversity degradation in Guinea. The reasons include: (i) poverty among the population; (ii) population growth; (iii) insufficient

human, financial and institutional capacity; (iv) poor governance in biodiversity management; (v) skills overlap; and (vi) poor knowledge of the value and role of biodiversity.

The SNPAB 2011-2020 is based on the following vision: “from 2011 to 2020, biological diversity is restored, conserved, valued and used wisely by all stakeholders, ensuring the maintenance of ecosystem services provided, keeping ecosystems healthy, and guaranteeing essential benefits for current and future generations in Guinea”.

The areas targeted by the programme still contain a considerable bio-diversity heritage of global importance which could be affected by some of the project's activities. The SCPZ must therefore be in line with SNPAB's vision in order to help in the preservation of this heritage.

3.2.4. The Mangrove Development Master Plan

Mangrove formations (*Rizophora racemose* and *Avicennia nitida*) are present in the Boké area targeted by the programme. The Mangrove Development Master Plan (SDAM) was elaborated in 1989 and proposes the main guidelines for the development of the Guinean mangrove which covers about 250,000 ha. A very large part of the Guinean population lives off mangrove resources. This fragile ecosystem is regressing at a rate of 4.2% per year. SDAM's aim is to find an acceptable compromise between the necessary development of the coastline and the conservation of the most sensitive areas.

3.2.5. Decentralisation Policy

The Law on the Local Government Code of 26 March 2006 (Section 19) creates thirty-eight (38) Urban Councils (UC) in the Republic of Guinea, thirty-three (33) of which are in the country's interior, five (5) in Conakry, and three hundred and three (303) Rural Development Communities (RDCs).

Ordinances No. 079/PRG/SGG/86 on the territorial reorganisation and institutionalisation of communities, and No. 091/PRG/SGG/90 on the financial and fiscal regime of the Rural Development Communities (CRD) determine the guidelines of the decentralisation policy, the powers and means of action, the organs, and the administration of territorial communities in Guinea. These communities are headed by elected officials. Eleven types of skills are transferred to them, including environmental protection. Regarding the environment, the transfer of skills to local authorities should breathe new life into the governance of natural resources.

3.2.6. Forestry Policy

The forestry policy document and its first action plan were adopted by Decree No. 056 /PRG/SGG/90 of 5 February 1990. The Guinean forestry policy states in its preamble that the forest must be protected, managed and exploited both as a perennial national heritage and as part of the lands and natural resources of the villages.

Guinean forests are national assets, their protection and development must be ensured by means of rational and balanced management that meets the population's current and future needs and contributes to environmental preservation.

The forest estate comprises: (i) the State forest estate; (ii) the forest estate of regional and local authorities, districts, villages; (iii) the private forest estate; and (iv) the unclassified forest estate. This forest estate must be protected against any form of degradation or destruction

caused, especially by over-exploitation, over-grazing, fires, burning, abusive clearing, diseases, introduction of unsuitable species and desertification.

The general guidelines of national forestry policy shall be the subject of a national forestry plan which shall set out the objectives to be achieved and include, in particular, a description of the state of forest resources, the actions to be taken to ensure the protection and development of forests, a forecast of the necessary investments and any other useful indications for the implementation of national forestry policy. In order to adapt national forestry policy to regional peculiarities, regional and *prefectural* forestry plans shall be drawn up in natural regions and *prefectures*.

The premises for the implementation of this policy have resulted in the reorganisation of the Forestry Administration, staff training and further training, involvement of the population, etc.

3.2.7. Energy Policy

An Energy Sector Development Policy Letter (ESDPL) was adopted in 2009 by the Guinean Government, which reflects the country's strategy for the sector's development. This Letter, which is spread over a 20-year period and covers all forms of energy, includes: (i) a General Policy Declaration (GPD), setting the objectives, strategic orientations for the development of the energy sector and implementation conditions; (ii) a Detailed Policy Letter (LPD) which is a GPD operational document; and (iii) an Action Plan and a Priority Investment Programme.

Regarding rural electrification, the new policy was initiated by the "Sector Policy Letter for the Promotion of Decentralised Rural Electrification" in February 1998 and confirmed in 2013 by the updated Energy Sector Development Policy Letter. In the same vein, Law L/2013/061/CNT on rural electrification was adopted in September 2013.

3.2.8. The National Action Plan to Combat Desertification (NAP/CD)

The NAP/CD, as a strategic framework to combat land degradation and deforestation for sustainable development, is structured around the following main areas of action: (i) safeguarding ecosystems; (ii) poverty alleviation; (iii) rational and integrated natural resources management; (iv) decentralisation and effective participation of grassroots stakeholders; and (v) partnership between stakeholders.

The capacity building programme, production improvement, natural habitat restoration and climate change mitigation activities of the FVP are in line with the NAP/CD strategy.

3.2.9. National Climate Change Adaptation Plan (NAPA)

By ratifying the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and signing the Paris Climate Agreement (COP21), Guinea committed itself to working towards a sustainable development policy based on the rational use of natural resources and the improvement of production techniques.

Guinea's National Action Plan for Adaptation to Climate Change (NAPA, 2007), the result of a participatory process, defined urgent and immediate measures to be taken to adapt to the adverse effects of climate change and contribute to reducing losses due to climate risks and improving the living conditions of the population. It outlined existing endogenous knowledge, identified the targets most vulnerable to the adverse effects of climate change and proposed adaptation options.

Twenty-five project profiles have been drawn up, broken down according to the state of vulnerability of resources and socio-economic groups, and covering the entire country. These projects deal with the improvement of water supply for various needs, especially in rural areas, the protection of the coastal zone, the improvement of agricultural and livestock yields, the safeguarding of forestry training, the promotion of information, education and communication, etc.

As for Guinea's national contribution to the fight against climate change under the Paris Agreement, a commitment to reduce by 2030⁴ the final demand for firewood and charcoal per inhabitant (urban and rural levels) by 50% compared to 2011; reforestation of 10,000 ha per year; and regarding agriculture, to support the adaptation efforts of rural communities to develop agro-sylvo-pastoral techniques that both enable them to continue their activities and preserve the resources on which they rely.

3.2.10. The National Health Development Plan (PNDS, 2015-2024)

The analysis of the national health situation highlighted the following main problems: high maternal, neonatal and infant and child mortality; high prevalence of communicable diseases, diseases with epidemic potential (Ebola, meningitis, cholera, measles, etc.) and non-communicable diseases; the health system's low performance.

The search for the causes of the dysfunction and poor performance of the health system has led the government to draw up the National Health Development Plan (PNDS, 2015-2024), which is based on three strategic orientations: i) Strengthening the prevention and management of diseases and emergencies; ii) Promoting the health of mothers, children, adolescents and the elderly; iii) Strengthening the national health system.

3.3 National Gender Policy (NGP)

The National Gender Policy (NGP) endorsed in 2012 indicates that Guinea's gender profile shows large gaps. The National Gender Policy (NGP), which is under review with AfDB support, aims at correcting these disparities between women and men. It hinges on five strategic thrusts, namely: (i) Access to basic social services; (ii) Respect for human rights and the elimination of violence; (iii) Access/control of resources and equitable income sharing; (iv) Improved governance and equitable access to decision-making spheres; and (v) mainstreaming gender in macro-economic policy.

The country has put in place a political and legal framework which guarantees the principle of equality between men and women (Constitution, Penal Code, Conventions on the Elimination of All Forms of Discrimination against Women (CEDAW) and on the Rights of the Child (CRC), Children's Code, Law 10-01 on Reproductive Health, law establishing a 30% quota for women on all electoral lists, etc.). The country has also ratified the main international and regional instruments relating to women's rights.

Indeed, the Guinean Constitution stipulates that: "All human beings are equal before the law. Men and women have the same rights". Guinea has also acceded to several international and regional conventions, protocols and commitments to combat all forms of discrimination against women. At the institutional level, a Ministry in charge of gender has been created with the

⁴ Source: Climate Strategy INDC Guinea –October 2015

assistance of development partners to promote the mainstreaming of gender in development policies and programmes.

A significant majority of women in the targeted areas involved in primary sector activities (agriculture, livestock, NTFPs, etc.) will benefit from the programme. SCPZ has also planned specific activities aimed at improving the living conditions and the empowerment of women.

3.4 National Environmental Legislation on the programme

Guinea has taken significant legal and institutional measures to promote sustainable development. In line with the programme, various laws and regulations of global and sectoral scope have been adopted and promulgated in the environment and natural resources management sector.

3.4.1 The Constitution of 22 March 2020

Guinea's 2020 Constitution states in Article 9 that all individuals, men and women, are born free and remain equal before the law. It affirms that parity between men and women is a political and social objective. No more than two-thirds of the members of Government and deliberative organs may be of the same gender. According to Article 16, everyone has the right to property. No one may be deprived of his or her property except for reasons of public utility and in the manner provided by law, subject to fair and prior compensation. The right to a healthy environment is recognised throughout the country. The State shall ensure the protection of the environment and the preservation and protection of the country's cultural and natural heritage against all forms of degradation (Article 22).

3.4.2 Law L/2019/035/AN of 4 July 2019 on the Civil Code

In connection with the programme which will require the acquisition of land, the Civil Code of 4 July 2019 determines the general principles of the transfer of rights and the use of property in general. According to Article 829, no one shall be compelled to transfer his property, except in the public interest and in return for fair and prior compensation.

3.4.3 Law LN°/2019/0034/AN of 4 July 2019 on the Environmental Code of the Republic of Guinea

Promulgated by Decree D/2019PRG/SGG of 26 July 2019, Law LN°/2019/0034/AN of 4 July 2019 on the Environmental Code of the Republic of Guinea aims at establishing the fundamental principles to promote sustainable development, managing and protecting the environment and natural capital against all forms of degradation (Article 1).

SCPZ must comply with the code, especially with respect to environmental and social assessments. According to Article 25 of the code, policies, plans, programmes and projects which by their nature, size or location are likely to harm the environment or human health are subject to an environmental assessment which may take one of the following forms: strategic environmental assessment, environmental and social impact assessment and environmental audit.

Environmental assessments are conducted by qualified experts approved by the Ministry of the environment, and are carried out at the request and expense of the developer or the contracting authority (Article 26). Any development project or construction or operation project that is

likely to harm the environment is subject to a prior environmental and social impact assessment (Article 28).

In Title II, Protection and Development of Host Environments, according to Article 41 of the Code, the soil, sub-soil and the wealth they contain are protected, as limited resources, renewable or not, against any form of degradation and managed in a sustainable and rational manner.

Concerning chemical substances, after the opinion of the Minister of the environment, the Minister of agriculture draws up the list of substances whose use is authorised or favoured during agricultural works. He also determines the authorised quantities and the modalities of use so that the said substances do not affect the soil quality or other host environments, the ecological balance and human health (Article 44).

In connection with the program, land use and development for agricultural, industrial, urban or other purposes, as well as research or exploitation of sub-soil resources likely to harm the environment are subject to prior joint authorisation by the competent Ministries (Article 45). Subject to the specific provisions applicable, direct and indirect spills, discharges, deposits of any kind likely to cause or increase the pollution of Guinean continental waters are prohibited (Article 53). Sites of historical, archaeological, scientific and cultural importance, as well as plant and animal species of ecological, aesthetic or medical interest are protected by this Code (Article 69). According to Article 104, the dumping or disposal by any process whatsoever of waste in continental waters and maritime waters under Guinean jurisdiction is prohibited, except with a special authorisation issued by the competent service of the Ministry of the environment or in cases of force majeure causing a threat.

Therefore, in accordance with Order No. A/2013/474/MEEF/CAB of 11 March 2013, the Ministry of the Environment published in 2013 the General Guide on Environmental and Social Assessment and the Sector Directives to provide project promoters and/or petitioners and study agencies with technical support to carry out the environmental and social impact studies necessary for a better analysis of their projects. This Guide defines the methodology and procedure to be followed in the conduct of environmental and social impact studies in the Republic of Guinea, and describes the projects subject to the environmental and social impact study procedure.

3.4.4 Ordinance O/92/019/PRG/SGG of 30 March 1992 on the Land and State Code (CFD)

The 1992 **Land and State Code** replaced the legislation in force since the First Republic which gave the State a monopoly over all land in the country, by introducing a system of concessions that granted usage rights to individuals. This new Land and State Code has a wider scope of application in terms of land management by allowing the extension of real rights over land, in addition to the State, to public, physical persons and corporate bodies.

From now on, the law considers land owners to be: (i) persons holding a land title; (ii) occupants holding a land register, a residence permit or an authorisation to occupy, in force under the old land law; (iii) occupants who can prove peaceful personal and continuous occupation in good faith.

This mechanism was strengthened by Decree D/2001/037/PRG/SGG of 17 May 2001 adopting the rural land policy, which reconciled the legal mechanism with positive customary practices.

Customary” holders could be considered as “de facto occupiers” and consequently invoke the condition of prolonged occupation of land for their own benefit, provided that a public enquiry validates their useful possession (development according to local customs).

Within the framework of the fundamental provisions of the Land and State Land Code (CFD), Decree D/2001/037/PRG/SGG of 17 May 2001 on the Declaration of Rural Land Policy sets out the Government's general guidelines on land management in rural areas. It will provide stakeholders such as the public administration, jurisdictions, decentralised authorities, rural communities, producers, development programmes and projects, investors and development partners with a benchmark framework for their interventions. The aim of this policy is to promote economic and social development by securing rural land rights, foster agricultural development, improve sustainable resources management and enable the development of a transparent and equitable land market.

In accordance with Article 56 of the law, no expropriation may be implemented before the public utility is declared by decree or by a declaration of public utility (DUP) which requires a public enquiry to be held. Expropriation is subject to fair and prior compensation, by amicable agreement or, failing that, by a court decision.

The expropriation procedure takes place in three phases: (i) administrative (investigation; declaration of public utility; act of transferability; notification; identification of tenants and holders of rights in rem; etc.); (ii) amicable; and (iii) possibly judicial.

The programme's implementation will require the acquisition of large areas of land and the encroachment of certain activities on agro-sylvo-pastoral species that could lead to the loss of land and property, or access to resources. As a supporting measure, the SCPZ has provided support for the development of implementing legislation for the land law and the operationalisation of the single land window. However, regarding the planned activities, the programme must comply with the CFD and Decree D/2001/037/PRG/SGG adopting the rural land policy which govern land management in Guinea.

3.4.5 The Law of 26 March 2006 (revised in 2017) establishing the Communities Code.

The revised 2017 Local Government Code aims at making effective a desire for decentralisation and transfer of powers to local authorities. Thus, the local authority has powers especially regarding (Art. 29): the management of its public and private domain; the construction and maintenance of community roads; the zoning of the community's territory; the acquisition, pre-emption and expropriation for public utility purposes; the administration of bare land without a known owner, the protection of the environment on the community's territory; the fight against fire, including bush fires; water and water point management; etc. According to Article 225, local communities have the responsibility to establish or have established, in accordance with the laws and regulations in force, the urban planning and zoning documents and plans necessary for the community's harmonious and sustainable development.

In line with SCPZ's objectives, the Code therefore gives local authorities certain prerogatives regarding the natural resources management and the management of the living conditions. The local communities will also have an important role to play in monitoring the implementation of programme activities, also in the sensitisation of the populations.

3.4.6 L/2017/060/AN of 12 December 2017 on the Forestry Code

Law L/2017/060/AN of 22 December 2017 on the Forest Code of the Republic of Guinea promulgated by Decree D/2017/338/PRG/SGG of 28 December 2017 sets the legal framework for forest protection and management. According to Article 120 "Any clearing, consisting in cutting or removing trees or plants from a parcel of land, by any process whatsoever, with a view to changing land use, is subject to authorisation, granted by permit". Any clearing must be accompanied by reforestation equivalent in quality and area to the initial afforestation (Article 122). Excavation, extraction, quarrying or mining, or the construction of large structures, the execution of which is envisaged in the forestry sector, are subject to the authorisation of the Ministry of Forests, as well as, where applicable, to a cutting or clearing permit (Article 126).

In relation to programme activities that could encroach on the forest estate, the Code therefore lays down precise provisions on acquisition measures, but also on measures to encourage reforestation, and makes any clearing activity subject to the prior receipt of a clearing permit.

3.4.7 Law L/99/038/AN Adopting and Promulgating the Wildlife Protection Code and Hunting Regulations

The 1999 Code had repealed all previous provisions contrary to this, in particular Order No. 081/PRG/SGG/89 of 20 December 1990, as amended and supplemented by Order No. 097/PRG/SGG/90 of 28 September 1990 and Law L/93/004/CTRN of 11 March, 1993.

A review of the law on the protection of wildlife and hunting made by the adoption of the Ordinary Law 2018/0049/year on the Code for the Protection of Wildlife and the Regulation of Hunting). However, it must be supplemented by an implementing decree.

The purpose of this Code is to establish the fundamental principles intended to ensure the protection, conservation and management of wildlife and its habitats, to recognise the right to hunt and to guide the practice of hunting with a view to promoting the sustainable rational use of animal species and to ensure their sustainability to satisfy human needs. According to the code, wildlife constitutes a heritage of general interest. Its economic, food and social interest, as well as its scientific, aesthetic, recreational and educational value are thus recognised.

In this respect, the following are strictly forbidden throughout the National Parks: any forestry, agricultural, fishing, fish farming or mining exploitation, any grazing of domestic animals, any excavation or prospecting, soundings, earthworks or constructions, in general, any work tending to modify the aspect of the land or vegetation, except for those necessary for the development of infrastructure required for the development and surveillance of the park and for the reception of tourists.

At the level of the targeted areas, there is a network of protected areas and despite the scarcity of wildlife resources following the destruction of their habitats, traditional hunting and bushmeat consumption are being practiced.

3.4.8 Law L/94/005/CTRN of 14 February 1994 on the Water Code

This law is the basic text on water resource management in Guinea. According to the code, Guinea's water resources are an integral part of the "natural public domain" of the State and local communities; they are subject to a precarious and limited "right of use", subject to prior

authorisation (Article 4). Everyone has the right of **inalienable access to water resources** and the right to **use them freely** for domestic purposes (Article 6). **All other uses (for non-domestic purposes) are subject to prior Authorisation, Permit or Concession** (Article 7).

The Water Code also governs the conditions of flow, discharge, direct or indirect deposit of water or materials likely to alter the quality of surface or ground water, as well as the conditions of control. Specific measures govern **the exploration and protection of groundwater sources**, especially: the establishment of protection perimeters around springs and points of water abstracted for human consumption, the delimitation of groundwater resource protection zones, the subjecting of boreholes to the regime of prior authorisation and of operators to obtaining a drilling licence; etc.

In addition, Law No. 006/AN of 4 July 2005 sets the charges due to withdrawals and water resources pollution, and Law No. 007/AN of 4 July 2005 sets the penalties for infringements of the Water Code.

The SCPZ has planned an important hydro-agricultural development component. The programme must comply with the Water Code and its regulations which govern the various management, use and protection aspects of water resources and hydraulic works.

3.4.9 Law L/95/51/CTRN of 29 August 1995 on the Pastoral Code

The Pastoral Code consists of a set of texts governing the practice of traditional animal breeding in Guinea. It specifies the legal principles relating to the organisation of the exploitation of natural resources for livestock purposes and the guarantee of pastoral usage rights (Article 1). As for livestock tracks, water access roads, transhumance tracks and similar facilities, they are classified as public property of the State and local authorities on which pastoral use rights can be obtained. These rights may be restricted only when the general interest so requires (Art. 77). Even in this case, the Pastoral Code provides for compensation in kind (provision for alternative resources, carrying out compensatory development or any appropriate supporting measures). In order to secure access to pastoral resources, the Code does not provide for restrictions on the exercise of grazing rights in the event of development, except when their maintenance is incompatible with the project (Art. 20).

The code also lays down the legal principles relating to the organisation of the exploitation of natural resources for livestock purposes, the guarantee of pastoral use rights, and the settlement of disputes between herders and farmers. The movement of transhumant herds is obligatory through transhumance tracks. Each decentralised local authority will have to identify the tracks within its territory. The list of tracks and the transhumance itinerary must be updated every year (Art.58). The transhumance tracks must remain completely free. Any destruction is forbidden, as well as planting (Art.59).

Livestock is an important activity sub-sector in the targeted areas. Some programme activities are likely to encroach on pastoral areas, it must comply with this code.

3.4.10 Law number L/2011/006/CNT of 9 September 2011 Establishing the Mining Code

Law N0. L/2011/006/CNT of 9/09/2011 on the Mining Code was amended by Law 2013/053 of 8 April 2013 amending certain provisions of Law L/2011/006/CNT of 9 September 2011 on the Mining Code. This law defines the legal framework for all mining activities in Guinea,

including prospecting, exploitation, trade and processing. It establishes the principle of State ownership of all mineral and fossil substances in the sub-soil or existing on the surface, as well as groundwater and geothermal deposits.

Some programme activities (trail construction, dykes, etc.) will require the use of quarries. Article 104 of Chapter 1 of Title 4 of Law No. L/2011/006/CNT provides that mining or quarrying operations must be conducted in such a way as to preserve water against pollution in accordance with the provisions of this Code, the Water Code and the Environment Code. Articles 111 and 112 of Chapter 2 of Title 4 deal respectively with protected or prohibited zones and protection zones. Article 143 lists the obligations to which mining operators must adhere with respect to the protection of the environment and health. The mining operator must ensure, in particular, the protection of ecosystems and biological diversity. **Valuable forest species enjoy special protection and may only be cut, mutilated or cleared after authorisation from the Minister of forests.** Any holder of a mining permit, quarry or mining concession is required to open and fund an environmental rehabilitation trust account to guarantee the rehabilitation and closure of his exploitation site.

3.4.11 The Labour Code Law No. L/2014/072/CNT/Decree No. 011/PRG/SGG/2014 of 10 January 2014

The Code sets out the provisions applicable to individual and collective relations between workers and employers working in the mixed and private sectors. The provisions also apply to relations between masters and their apprentices as well as to traineeship contracts. It lays down rules on recruitment and termination of employment; rules on working conditions, including pay, maximum hours worked and overtime; and employee benefits such as paid leave and retirement. The Code also sets out requirements for the protection of the health and safety of employees. It contains provisions on the establishment of trade unions etc.

The programme's implementation will require the mobilisation of managers, support staff and a large workforce, therefore the provisions of this code will be rigorously applied.

3.4.12 Joint Order No. 93/8993/PRG/SGG of 11 October 1993 fixing the technical nomenclature of installations classified for environmental protection.

It draws up a list of all classified installations subject to the environmental impact assessment procedure and determines the corresponding class (1st class for the most polluting and 2nd class for the least polluting). All 1st class installations must be subject to an environmental impact study before they are installed.

3.4.13 Order No. 95/6822/MAEF/SGG Instituting the Phytosanitary Control of Plants on Import and Export in the Republic of Guinea

This decree created at the different borders (Ports, International Airports and main land borders) Phytosanitary Control and Treatment Stations, in application of article 6 of law L/92/027/CTRN, instituting the phytosanitary control of plants for import and export. The essential tasks of the Phytosanitary Control and Treatment Stations are to prevent the introduction and dissemination within the national territory of organisms dangerous to plants and plant products as well as their export to other countries. To this end, they are responsible for: controlling the sanitary status of plants and plant products for import and export; verifying import phytosanitary certificates and issuing export phytosanitary certificates; deciding on the

re-entry or rejection and, if necessary, carrying out phytosanitary treatment of plants for import and export.

In relation to the project's Production Systems Improvement component, the Phytosanitary Control and Treatment Stations have the essential tasks of preventing the introduction and dissemination within the national territory of organisms dangerous to plants and plant products as well as their export to other countries (Article 2).

3.4.14 Other national environmental protection texts

In connection with the programme, the following can be mentioned:

- Decree D/97/287/PRG/SGG regulating the management and control of noxious and hazardous chemical substances, regulates the production, import, marketing, transit and circulation of noxious and hazardous chemical substances, in accordance with the principles and rules set out in the Environmental Code.
- Law L/96/009 on the management of natural and anthropic disasters, regulates the management of disasters of geophysical, hydro-meteo-climatic or anthropic, ecological and technological origin.
- Law No. L/96/012 to amend and supplement Order No. 022/PRG/89 of 10 March 1989 on penalties in the Environmental Code, stipulates that “The manufacture, import, possession, sale and use of products generating waste are subject to mandatory regulation with a view to facilitating either disposal or prohibition, as the case may be”.
- Law No. L/96/010/An Regulating pollution taxes applicable to classified establishments, sets the basic rate of the pollution tax to be paid by classified installations and establishments;
- Decree No. D/2004/065/PRG/SGG on the attributions and organisation of the Ministry of the Environment, sets out the Ministry’s mission in the fields of environmental protection, rational management of renewable natural resources and improvement of the quality of life;
- Decree No. 201/ PRG / SGG 89 of 8 November 1989 on the preservation of the marine environment against all forms of pollution, makes all operations of dumping, immersion or incineration of substances listed in Annex II of the decree subject to authorisation; and
- Order No. 8993/SGG/ of 11 October, 1993 fixing the technical nomenclature of classified installations, specifies that fixed installations likely to generate significant pollution are classified in two categories, according to the degree of potential danger they are to the environment.

3.5 Discharges standards

The Ministry of the environment has published a number of normative instruments relating to air pollution, wastewater release and maximum limits of exposure to some chemicals. Tables 2, 3, 4 and 5 below contain some standards.

Table 1: Normative Instruments (air pollution, wastewater release and limits of exposure to chemicals)

No.	Standards	Codes
1	Air pollution and release	NG 09-01 011: 2012 / CNQ: 2004
2	Wastewater release	NG 09-01 010: 2012 / CNQ: 2004
3	Maximum limits of exposure to some chemicals and noise in the workplace	NG 09-01 012: 2012 / CNQ: 2004
4	Environmental inspection procedures for industrial and commercial facilities	NG 09-01 013: 2012 / CNQ: 2004
5	Guidelines on quality and/or environmental management systems auditing	NG 09-05-002: 2012 / ISO 19011: 2002

Ministerial Order No. 2015/342/MIPMEPSP/CAB of 27 February 2015 sets the release thresholds described in the tables below.

Table 2: Guinean Standards on Atmospheric Releases

Pollutants	Limit concentrations	Statistical definitions
SO ₂	50µg/m ³	Yearly average
	125 µg/m ³	Daily average
NO ₂	40 µg/m ³	Yearly average
	200µg/m ³	Hourly average
CO	30µg/m ³ (1)	Daily average
PM ₁₀	80µg/m ³	Yearly average
	260µg/m ³ (1)	Daily average
PM _{2.5}	65µg/m ³	Yearly average

24-hour average – may not be exceeded more than once a year.

Table 3: Guinea Noise Standards

Period	Maximum Ambient noise level in Leq over 1 hour (db A)		
	Class1 Residential area	Class2 Residential area	Class 3 Residential area
6: 00- 13: 00	50	55	70
13:00 - 15:00	45	50	
15:00 - 22:00 hours	50	55	
22:00– 6:00	45	50	

Table 4: Parameters of Water Releases into the Natural Environment

Parameters	Guinea wastewater release standards
Ph	5.5-9
Temperature	< 30°C
DCO	<200mg/L where daily rate is ≤30L/d <100mg/L where daily rate is > 30L/d
EFS	<15mg/L (specific threshold for the mining industry)
DBO5	<200mg/L where daily rate is ≤100kg/d <100mg/L where the daily rate is > 100kg/d
Total Nitrogen	<30mg/L as average monthly concentration where daily rate is ≥50g/d A different value may be set by the Mining Authorisation.
Total phosphorous	<10mg/L as average monthly concentration where daily rate is ≥ 15kg/d A different value may be set by the Mining Authorisation
Total hydrocarbons	15mg/L where daily rate is ≥150g/d

3.6 Environmental and Social Assessment Procedures

The instruments governing administrative environmental and social assessments procedures in Guinea are: (i) Decree D/2019PRG/SGG of 26 July 2019 and Law LN°/2019/0034/AN of 04 July 2019 on the Environmental Code; (ii) Order No. A/2013/474/MEEF/CAB of 11 March 2013, on the Environmental and Social Assessment General Guide.

All the approaches and procedures on the ESIA preparation can be classified in 10 phases developed here below.

- 1. Filing of the project notice:** The Guinean Studies and Environmental Assessment Agency (BGEEE), now known as the Guinean Bureau of Audit and Environmental Compliance (BGACE), prepares the project notice form which it submits to the petitioner. The latter provides all the characteristics of his project in order to allow the ministerial authority in charge of the Environment to indicate; through the preliminary sorting, the nature or type of study to be conducted.

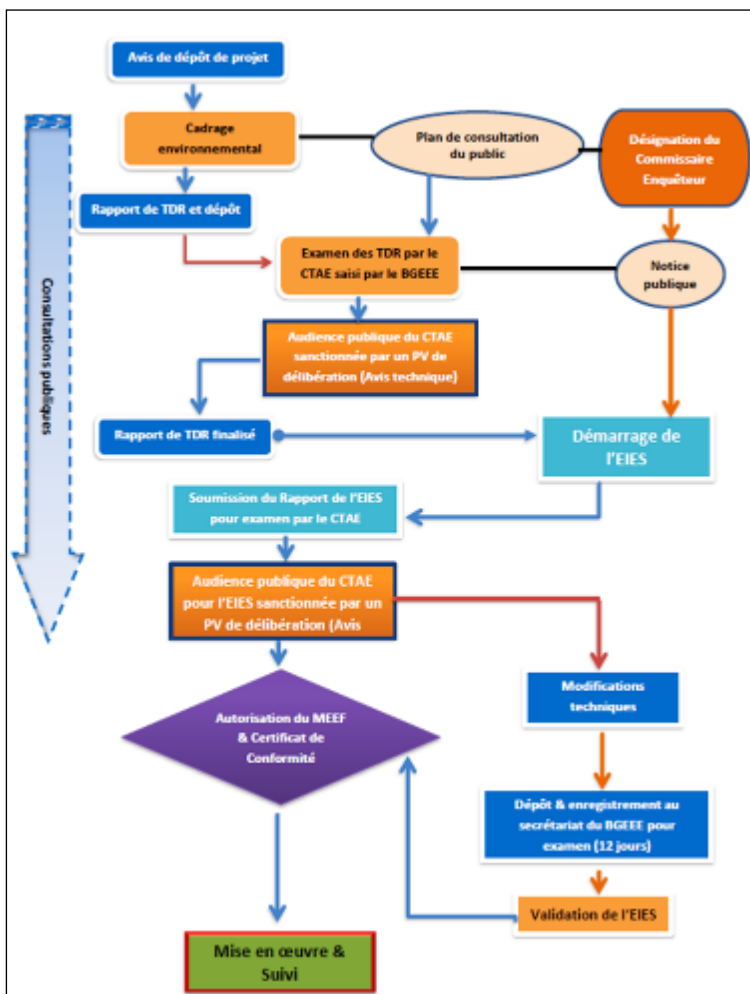
- 2 - Carrying out the study's scoping: scoping consists in carrying out a characterisation of the project site in order to identify the major issues related to the project's implementation. The objective is to promote the preparation of the terms of reference (TOR).
- 3 - Validation of the terms of reference: the TORs prepared by the petitioner or his representative are transmitted to the ministerial authority in charge of the environment in 23 copies in accordance with the number of members of the Technical Committee on Environmental Analysis (CTAE) for approval. A joint supervision and compliance mission of the terms of reference with the realities of the site is sent to the field before the approval of the TORs. Under the coordination of the Guinean Environmental Assessment Bureau, the Technical Committee on Environmental Analysis (CTAE) is formed to review and validate the contents of the TORs. The ministerial authority issues an authorisation for the approval of the TORs.
- 4 - Conducting the Strategic Environmental Impact Assessment (SEIA): the petitioner employs an independent consultant to conduct the environmental and social impact assessment in accordance with the approved TORs.
- 5 - Submission of the draft report of the impact study in 23 copies to the ministerial authority in charge of the environment in accordance with the number of members of the CTAE for approval.
- 6 - Organisation of public consultations on the project site: a mission composed of two agents of the Guinean Environmental and Social Assessment Bureau, the Public Enquiries Coordinator and the Prefectural Director of the Environment travels to the localities bordering the project site in order to collect the opinions and comments of the population concerned by the project. A report on the investigation or public consultation is drawn up and submitted to the BGACE by the Public Enquiries Coordinator.
- 7 - Organisation of the public hearing: this stage constitutes the second level of validation of the Environmental and Social Impact Assessment (ESIA) report and brings together the members of the Technical Committee on Environmental Analysis (CTAE) comprising 23 members, including executives from the ministries interested in the said project. The minutes of approval were adopted. The petitioner is ordered to correct the report on the ESIA in accordance with the recommendations of the minutes of the Riparian Population Consultation and the CTAE.
- 8 - Submission of the final (or final) ESIA report in five (5) copies to the Audit Commission in hard copy and electronic format.
- 9 - Issuance of the Environmental Compliance Certificate (ECC): the ministerial authority, following the minutes of the Riparian Population Consultation and the CTAE, issues the Environmental Compliance Certificate.
- 10 - Monitoring and supervision programme for the implementation of the environmental and social management plans (ESMP) of the projects. The prefectural committees on environmental and social monitoring ensure the close

monitoring of the implementation of the ESMP, issue technical opinions and recommendations in a report addressed to the petitioner and the Ministry of the Environment. The BGACE, being the coordinating body for environmental assessments, conducts the annual monitoring and control of the implementation of the ESMP. However, it may involve other technical departments concerned by the project in its monitoring programme.

The BGACE, being the coordinating body of environmental assessments, carries out the annual monitoring and supervision of the ESMP's implementation. However, it may involve other technical departments concerned by the project in its monitoring programme.

For private projects, the issuance of the ECC is subject to the payment of 3% of the cost of conducting the environmental and social impact assessment charged to the account of the Environmental Protection Fund (Article 2, paragraph 3 of Order A/2008/4947/MDDE/CAB/SGG of 4 December 2008, on the commissioning of services on environmental and social assessment files). This rate levy is not applied to public projects. However, the capacity building of the administrative structures in charge of monitoring the implementation of the project's environmental and social management plan must be taken into consideration.

Figure 01: General diagram of ESIA in Guinea (Order No. A/2013/474/MEEF/CA)



BGEEE: Guinean Environmental Studies and Assessment Agency. **CTAE:** Environmental Analysis Technical Committee. **ESIA:** Environmental and Social Impact Assessment. **TOR:** Terms of Reference.

3.7 Institutional framework governing environmental and social assessments

The Ministry of Environment (Ministry of Environment, Water and Forestry, new name following the Decree of 26 May 2018), is charged, among other things, with the design, preparation and coordination of the implementation of government policy on environmental and social assessments, management of natural resources and improvement of living conditions.

In line with the project in the areas of the environment and natural resources management at central level, the Ministry relies on several **National Directorates** (Environment, Guinea Parks and Reserves Board-OGUIPAR, Sanitation and Living Conditions, and Water and Forestry), on **Advisory Bodies** (National Council for the Environment and Sustainable Development (CNEDD); National Committee for the Management of Chemical Products and Substances (CNGPSC) and, regarding environmental and social assessments, on the Guinean Environmental Studies and Assessment Agency (BGEEEE).

Regarding **Decentralised Services**, the Ministry relies on Services in charge of the Environment, Water and Forestry.

The Guinean Environmental Studies and Assessment Agency (BGEEEE) is charged with promoting the government's environmental assessment policy. It is responsible for coordinating the consideration and validation of environmental and social impact assessments by ensuring the administrative coordination of the process when it receives a file from the Ministry of the environment.

By virtue of their missions, the services of the Ministries of agriculture, livestock, research, local communities, health, social action, gender and women's empowerment, and their decentralised services, as well as the local authorities of the targeted areas, will also be involved in the programme monitoring and implementation.

Civil Society Organizations, national and foreign NGOs, producer organisations and groupings, women's organisations and groupings, will also be involved in the project implementation.

3.8 Project-related international environmental legislation

Guinea signed and/or ratified various conventions and treaties, some of which apply to the programme. These include:

- **African Convention on the Conservation of Nature and Natural Resources, or the Algiers Convention**, adopted in Algiers on 15 September 1968, entered into force on 7 May 1969. The OAU, now known as the African Union (AU) is the Depositary of the Convention. Guinea has been a party since 12 December 1969. The fundamental principle of the Convention is that the Contracting States undertake to take all necessary measures to ensure the conservation and sustainable use of soil, water, flora and fauna resources on the basis of scientific principles and take into consideration the interests of the population.

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or Washington Convention**, adopted in Washington on 3 March 1973, came into force on 1 July 1975. Guinea acceded to the Convention since 20 December 1981. It is based on the principle that by virtue of their beauty and their value (aesthetic, scientific, cultural, recreational and economic), wild fauna and flora constitute an irreplaceable element of natural systems which must be protected by current and future generations.
- **Convention on Wetlands of International Importance Especially as Waterfowl Habitat or the Ramsar Convention**, adopted in Ramsar, Iran, on 2 February 1971 and entered into force on 21 December 1975, with UNESCO as Depositary. Guinea has been a member of this Convention since 24 September 1992. The Convention highlights the interdependence of man and his environment, the fundamental ecological functions played by wetlands as regulators of watercourse regimes and as habitat for specific flora and fauna.
- **Convention on Biological Diversity**, adopted in Nairobi (Kenya) on 22 May 1991, entered into force on 29 December 1993. The United Nations Secretary-General is Depositary of this Convention to which Guinea became a member on 7 May 1993. Based on the principle that biological resources are essential for the economic and social development of all mankind, the Convention reaffirms that the conservation of biological diversity is a concern of all mankind. One of the major goals of the Convention is the use of biological diversity components and the equitable sharing of the benefits arising from the exploitation of genetic resources.
- **United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, especially in Africa**, adopted in Paris on 17 June 1994, entered into force on 26 December 1996. Guinea became a member on 19 April 1997. The Depositary is the United Nations Secretary-General. The objectives of this Convention are: to rehabilitate, conserve and manage land and water resources; improve living conditions, especially at the community level; improve land productivity; establish sustainable development of areas experiencing drought and combat desertification, and mitigate the effects of drought.
- **United Nations Framework Convention on Climate Change (UNFCCC)**, adopted in June 1992, entered into force on 21 March 1994. The United Nations Secretary-General is the Depositary of the Convention. Given that the atmosphere is humanity's most common habitat, the Convention's ultimate goal is to stabilise concentrations of greenhouse gases (GHGs) in the atmosphere at a level acceptable for natural ecosystems and which allows for normal continuation of sustainable development.
- **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**, adopted in Basel on 22 March 1989 and entered into force on 5 May 1992, with the United Nations as Depositary. Guinea acceded to the Convention on 30 March 1995. It seeks to reduce transboundary movements of wastes subject to the Convention to a minimum compatible with environmentally sound and efficient waste management, and to

minimize the toxicity of hazardous wastes by ensuring their environmentally sound management. It helps developing countries to ensure the environmentally sound management of hazardous wastes and other wastes they generate.

- **International Union for the Conservation of Nature and its Natural Resources (IUCN), also referred to as the World Conservation Alliance or Union**, founded in 1948, is a union of sovereign States, public law bodies and non-governmental organisations. Guinea acceded to it on 24 September 1992. IUCN seeks to ensure the conservation of nature, especially of biological diversity and a rational, equitable and sustainable use of the planet's natural resources.
- **Rome Declaration on Forestry** follows the first Ministerial Meeting on Forestry held in Rome on 16 and 17 March 1995 to highlight the importance of forests for sustainable development at the local, national and international levels. It is a non-legally binding but authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all types of forests. The Declaration stipulates that in accordance with the United Nations Charter and international law principles, States have the sovereign right to exploit their own resources in accordance with environmental policies, and they have the duty to ensure that the activities carried out within their jurisdiction or under their control do not cause damage to the environment elsewhere.
- **ILO Conventions** ratified by Guinea, in particular Convention 148 on the working environment (air pollution, noise and vibration), Convention 143 on migrant workers, Convention 100 on equal remuneration, Convention 119 on protection of machinery, Convention 142 on human resources development and Convention 3 on maternity protection.

The following conventions and treaties are also applicable to the programme:

- Convention on the African Migratory Locust, adopted in Kano, Nigeria in 1962 and ratified in 1963;
- Vienna Convention for the Protection of the Ozone Layer, adopted in 1988;
- Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in 1989;
- UNEP London Guidelines for the Exchange of Information on Chemicals in International Trade (amended, 1989);
- FAO International Code of Conduct for the Distribution and Use of Pesticides (amended version, 1989);
- Rotterdam Convention on the Prior Consent Procedure Applicable to Certain Hazardous Chemicals and Pesticides in International Trade, adopted in

Rotterdam, Holland on 11 September 1998 and ratified by Guinea on 18 August 2000;

- Cartagena Protocol on Biosafety, adopted in 2000;
- Stockholm Convention on Persistent Organic Pollutants (POPs), adopted in Stockholm, Sweden on 22 May 2001 and signed by Guinea on 22 May 2001;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and other Wastes, adopted in Basel, Switzerland on 22 March 1989 and ratified by Guinea on 30 March 2000;
- Bamako Convention on the Ban of the Import into Africa of Hazardous Waste, adopted in 2000;
- African Convention on the Conservation of Natural Resources, adopted in Maputo on 11 July 2003;
- Convention on the Elimination of all Forms of Discrimination against Women, adopted by the international community in 1979;
- Optional protocol to the Convention on the Elimination of all Forms of Discrimination against Women, New York, 6 October 1999;
- African Charter on Human and Peoples' Rights, June 1981 Nairobi, Kenya;
- Protocol to the African Charter on Human and Peoples' Rights, relating to women's rights, Maputo, 11 July 2003;
- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87);
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98);
- Discrimination (Employment and Occupation) Convention (111);
- Worst Forms of Child Labour Convention, 1999 (No. 192);
- Minimum Age Convention, 1973 (No. 138).

At the continental level, it is also worthy to note adherence to: the Declaration on land issues and challenges in Africa, African Union Heads of State and Government (AU, 2009); the Guiding Principles for Large-Scale Land Investments in Africa (AU 2014), the Framework and Guidelines on Land Policy in Africa (AU 2010), etc.

At the regional level, Guinea is a member of ECOWAS, the Organisation for the Development of the Senegal River (OMVS), and the Organisation for the Development of the Gambia River (OMVG). The agreements ratified in relation to the programme include the following: Convention and Protocol on the Niger Basin Authority, adopted in 1980 and ratified in 1982;

Convention establishing the Inter-State Committee for Drought Control in the Sahel (CILSS) of 19 September 1973 (Ouagadougou); etc.

Also worth mentioning are the ECOWAS Agricultural Policy (ECOWAP), the ECOWAS Environment Policy, the West African Water Resources Policy, the Guidelines for the development of hydraulic infrastructures in West Africa (ECOWAS, 2011), whose general objective is to contribute sustainably to meeting the food needs of the population, to economic and social development and to poverty reduction in Member States, as well as the reduction of inequalities between territories, areas and countries.

3.9 Socio-environmental standards of the Green Climate Fund (GCF)

The Green Climate Fund (GCF) is the financial mechanism of the United Nations Framework Convention on Climate Change which aims at limiting or reducing greenhouse gas emissions in developing countries and helping vulnerable communities adapt to climate change impact. GCF intends to contribute to the achievement of the mitigation and adaptation goals of the international community with the aim of keeping the average temperature increase on the planet below 2°C.

The Fund identified the following five cross-cutting investment priorities which will deliver major mitigation and adaptation benefits:

- transforming energy generation and access;
- creating climate-compatible cities;
- encouraging low-emission, climate-resilient agriculture;
- scaling up finance for forests and climate change; and
- enhancing resilience of Small Island Developing States (SIDS).

The Graph below presents the eight priority intervention areas of the GCF.

The GCF basic principles on the allocation of its resources are: (i) equitable allocation of 50% for mitigation and 50% for adaptation; and (ii) minimum allocation of 50% of funds allocated to adaptation for the benefit of the most vulnerable countries.

The GCF manages the risks and socio-environmental aspects of the Projects/Programmes that it finances through:

- Fiduciary standards for the sound use of resources;
- Socio-environmental standards to limit damage to people and ecosystems;
- A gender policy to guarantee gender equity and equality;
- An understanding of risks to improve management;
- Monitoring and evaluation of project/programme activities.

There are eight socio-environmental standards/performance standards (PS):

- **Performance standard 1:** Environmental and social risks and impacts assessment and management;
- **Performance standard 2:** Working conditions;
- **Performance standard 3:** Rational use of resources and pollution prevention;
- **Performance standard 4:** Community health, safety and security;
- **Performance standard 5:** Land acquisition and involuntary resettlement;
- **Performance standard 6:** Biodiversity conservation and natural resources sustainable management;
- **Performance standard 7:** Indigenous populations;
- **Performance standard 8:** Cultural heritage.

Performance standard 1 is applicable to all activities, while the others are applicable according to the needs and specificities of a project. In relation to additional activities, performance standards (PS) applicable to this project are: PS1- Environmental and social risks and impacts assessment and management; PS2- Manpower and working conditions; PS3- Rational use of resources and pollution prevention; PS4- Community health, safety and security; PS6- Biodiversity conservation and sustainable management of living natural resources.

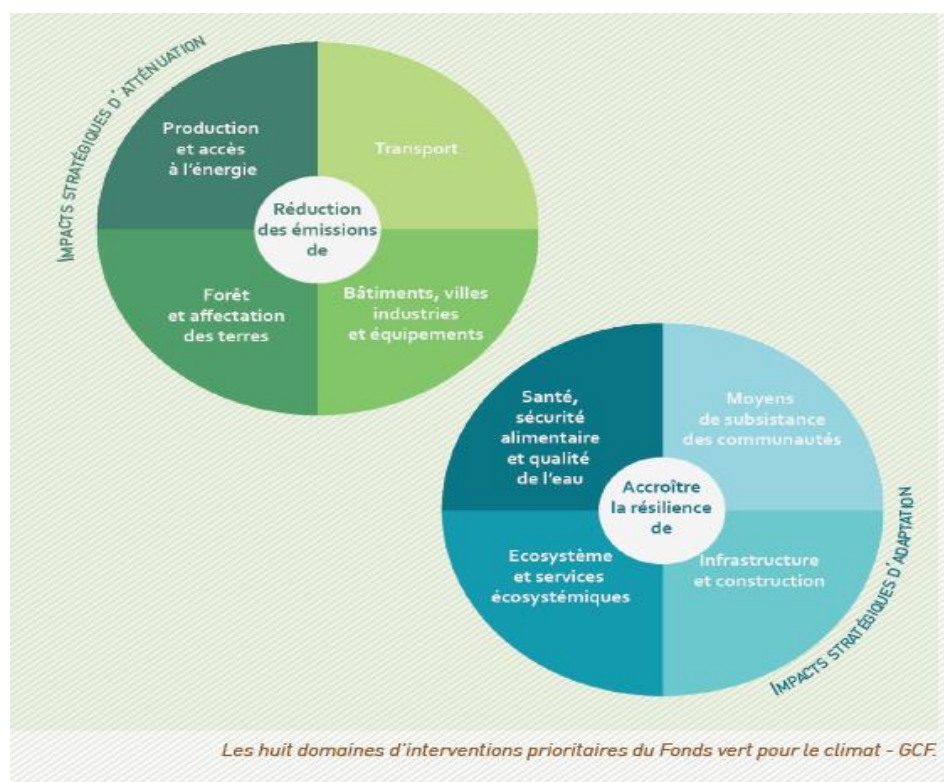
The GCF has also established a mechanism and rules to understand, appreciate and assess the environmental and social risks associated with projects/programmes.

The **Risk categories** are as follows:

- **Category A or I1:** Activities with a significant potential for negative environmental and social risks and/or varied, irreversible or unprecedented impacts
- **Category B or I2:** Activities with limited potential for environmental and social risk and/or impacts that are not numerous, well located, largely reversible and easily managed by mitigation measures
- **Category C or I3:** Activities with minimal or no effect, environmental and social risks and/or negative impacts.

The following chart outlines the eight priority areas of the GCF intervention.

Figure 2: The eight GCF areas of intervention



The financing allocated by the GCF is implemented only through accredited entities or intermediaries (executing entities). The Fund therefore provides recipient countries access to funding through duly accredited national and international implementing entities, and intermediaries (including NGOs, ministries, national development banks and other national or regional organisations that meet Fund standards). Countries can also access funding through accredited international or regional entities, such as multilateral and regional development banks, and agencies of the United Nations system. Private sector structures can also be accredited as an implementation instrument.

In March 2016, the AfDB received accreditation from the GCF to operate as an international implementing entity. Accredited entities are required to ensure the application of performance standards issued by the GCF, standards that are fully consistent with AfDB environmental and social policy.

3.10 AfDB Environmental and Social Policies Applicable to the Programme

The SCPZ will help achieve 3 of the Bank's High 5s priorities, namely: Feed Africa, Industrialize Africa and Improve the quality of life for the people of Africa. The SCPZ objectives are also in line with the Bank's Ten-Year Strategy (2013-2022), as well as with the guidelines of the Bank's new strategy in the agricultural sector which give priority to the development of value chains and to agricultural entrepreneurship.

In addition to these policy alignments, the Bank requires borrowers/clients to comply with its environmental and social safeguards during project preparation and implementation. The Integrated Safeguards Policy Statement (ISS) establishes the principles that underpin the Bank's safeguards and is the AfDB's strategy for the promotion of socially inclusive and ecologically sustainable growth.

The ISS also aims at better aligning safeguards with new Bank policies and strategies. It is based on the two previous safeguard policies on involuntary resettlement (2003) and on the environment (2004), as well as on cross-cutting policies and strategies, including gender (2001), the climate risk management strategy and adaptation (2009), and the Civil Society Participation Framework (2012). It is also based on the Bank's sector policies: health (1996), integrated water resources management (2000), agriculture and rural development (2000, 2010) and poverty reduction (2004).

3.10.1 Integrated Safeguards System (ISS)

The ISS includes: (i) an integrated safeguard policy statement; (ii) operational safeguards (OS); (iii) a revised set of environmental and social assessment procedures (ESAP) which gives specific procedural guidelines which the Bank and its borrowers or clients must follow to ensure that Bank operations comply with the conditions of the operational safeguards at each stage of the project cycle; and (iv) guidelines for integrated environmental and social impact assessment (IESIA).

The Bank has therefore adopted five (5) Operational Safeguards (OS): (i) ***OS1: Environmental and social assessment***; (ii) ***OS2: Involuntary resettlement (land acquisition, population displacement and compensation)***; (iii) ***OS3: Bio-diversity and ecosystem services***; (iv) ***OS4: Pollution prevention and control, greenhouse gas, hazardous material and resource efficiency***; (v) ***OS5: Labour conditions, health and safety***.

Regarding SCPZ activities and implementation context, the following guidelines and policies are likely to be triggered.

3.10.2 Operational Safeguard 1 (OS1): Environmental and Social Assessment

The objective of this essential OS, and of all the supporting OSs, is to integrate environmental and social considerations into the Bank's operations. This OS governs the determination of the environmental and social category of a project and the resulting environmental and social assessment requirements.

The SCPZ has been classified as Category 1. Category 1 projects are likely to result in significant or irreversible environmental and/or social impacts, or to significantly affect environmental or social components that the Bank or the borrowing country considers to be sensitive.

3.10.3 Operational Safeguard 2 (OS 2): Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation

This OS addresses the economic, social and cultural impacts associated with Bank-financed projects, which involve the involuntary loss of land, involuntary loss of other assets, or restrictions on land use and access to local natural resources.

The term "resettlement" refers to both physical displacement and economic loss. Resettlement is considered involuntary when people affected by the project are unable to refuse activities that result in their physical displacement or economic loss.

OS2 aims at ensuring that people who must be displaced or negatively affected are treated fairly and equitably, and in a socially and culturally acceptable manner, receive compensation and resettlement assistance so that their standard of living, their ability to generate income, their

production levels and all of their livelihoods are improved, and they can benefit from the benefits of the project which triggers their resettlement.

The project areas are still sparsely populated and have significant land resources and silvo-pastoral spaces that are still underutilized. There will be no risk of physical displacement or resettlement of populations, nor of loss of sources of major assets during project execution. However, the land issue and transhumance continue to be major issues that should be considered.

3.10.4 Operational Safeguard 3: Biodiversity and Ecosystem Services

OS3 sets targets for conserving biological diversity and promoting the sustainable use of natural resources. It translates the commitments in the Bank's policy on integrated water resources management into operational requirements. This OS reflects the goals of the Convention on Biological Diversity and is aligned with the Ramsar Convention on Wetlands, the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the World Heritage Convention, the United Nations Convention to Combat Desertification, and the Millennium Ecosystem Assessment.

Its recommendations are compatible with the International Plant Protection Convention which covers the movement of invasive alien species, pests and risk analysis for quarantine pests, including analysis of environmental risks and genetically modified living organisms.

The natural regions of Guinea have varied ecosystems containing a rich bio-diverse heritage under the threat of various factors (anthropogenic, climatic deterioration, etc.). Special attention will be paid to the preservation of this heritage during the implementation of the programme which will result in the implementation of various measures. In addition to the actions to strengthen the resilience of ecosystems and communities planned by the GCF, the programme has also provided for an important component for ecosystems protection and conservation (Restoration and protection of the natural habitat around the facilities and other infrastructure, production of improved stoves and other actions to combat deforestation).

3.10.5 Operational Safeguard 4: Pollution Prevention and Control, Hazardous Materials and Resource Efficiency

This OS covers the range of key impacts of pollution, waste and hazardous substances. The borrower or client will apply pollution control and prevention measures in accordance with domestic laws and standards, international conventions in force and internationally recognised standards and good practices, especially the Bank's Environment, Health and Safety Directives. Where domestic laws and regulations differ from the standards and measures presented in the Environment, Health and Safety Directives, borrowers or clients are, in principle, required to apply those which are more severe.

Some programme activities such as hydro-agricultural development, construction of production roads and installation of processing plants, will generate various forms of pollution and nuisance. The study will recommend various measures to mitigate and reduce these adverse effects and impacts.

3.10.6 Operational Safeguard 5: Working Conditions, Health and Safety

This OS establishes the Bank's requirements for its borrowers or clients concerning workers' conditions, rights and protection from abuse or exploitation. The specific objectives of the OS are to (i) protect workers' rights; (ii) establish, maintain and improve relations between employees and employers; (iii) promote compliance with domestic legal requirements and provide additional prescriptive diligence where domestic laws are silent or inconsistent with the OS; (iv) ensure alignment of Bank requirements with the core ILO labour standards and the International Convention on the Rights of the Child (UNICEF), where domestic laws do not provide equivalent protection; (v) protect the working population against inequalities, social exclusion, child labour and forced labour; and (vi) put in place the requirements to ensure occupational safety and health.

The implementation of some programme activities will call for the mobilisation of a significant workforce. In this regard, Operational Safeguard 5, Working Conditions, Health and Safety and Guinea's labour and safety legislation will be strictly enforced during programme implementation.

3.10.7 Other Programme Activity-related Commitments and Responsibilities

The Bank also ensures compliance with the following principles:

3.10.8 Transparency, Good Governance and Inclusiveness

Throughout the environmental and social assessment process, the Bank ensures that the borrower or client conducts meaningful and transparent consultations with affected communities, especially with vulnerable groups to enable them participate in a free, prior and informed manner in decisions on environmental and social impacts prevention or management.

3.10.9 Promotion of Gender Equality and Poverty Reduction

Bank policies and operations aim at boosting economic growth and poverty reduction in regional member countries, with the more specific objective of promoting equitable and sustained economic empowerment of men and women. The Bank recognises that poverty, ecological degradation and gender inequalities are often strongly interrelated. This is why the Bank pays special attention to the reduction of poverty and gender inequality by carrying out an assessment of gender issues for every project. The Gender Policy aims at promoting gender equity and gender mainstreaming in all Bank operations. It requires the AfDB to apply gender analysis to all its activities.

To make the project objectives comply with the requirements of this policy, specific measures targeting gender and women's empowerment have been provided for.

3.10.10 Protection of the most vulnerable

In accordance with its Strategy (2013-2022), the Bank ensures protection of the most vulnerable Africans and offers them opportunities to benefit from its operations. Depending on the context, vulnerable groups may include, for example, the landless, those who do not have legal permits to access resources, ethnic, religious or linguistic minorities, certain categories of children – orphans and homeless - marginalised social groups and groups sometimes referred to as indigenous peoples.

When groups are identified as vulnerable, the borrower or client will implement differentiated measures to ensure that the inevitable negative impacts do not disproportionately impact these vulnerable groups and that they are not disadvantaged in the sharing of the benefits and opportunities created by the project.

3.10.11 Country-level Complaint Handling and Redress Mechanism

The Bank ensures that clients establish credible and independent local complaint and redress mechanisms to help address affected people's grievances and concerns about the project's environmental and social impacts.

3.10.12 Independent Review Mechanism (IRM)

The Bank's Independent Review Mechanism is to provide persons who are, or who are likely to be, adversely affected by a Bank-financed project as a result of the violation of Bank Group policies and procedures with an avenue to request the Bank to comply with its own policies and procedures.

The requestors first seek to resolve their complaints with Bank Management; but if in their opinion, Bank Management has not adequately handled their complaints, they may submit their requests to IRM.

The IRM comprises two separate, but related, phases: (1) a complaint or problem-solving phase, led by the CRMU reporting directly to the Bank President, to assist project-affected people in finding solutions to their problems; and (2) a compliance review phase, led by a three-member panel drawn from the IRM roster of experts.

3.10.13 Goods harmful to the environment (negative list)

The Bank defines the following as harmful to the physical and social environment, and excludes them from its operations for both the public and private sectors:

- Production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements;
- Production of or trade in radioactive materials, with the exception of medical materials and quality-control equipment for which the radioactive source is trivial and adequately shielded;
- Production of or trade in or use of unbonded asbestos fibres or other products with bonded asbestos as dominant material;
- Production of or trade in pharmaceuticals, chemical compounds and other harmful substances subject to international phase-outs or bans, including pesticides classified as Class Ia (extremely hazardous), Ib (highly hazardous) or II (moderately hazardous);
- Production of or trade in ozone-depleting substances subject to international phase-out;
- Trade in wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);

- Purchase of logging equipment for use in unmanaged primary tropical rainforests; and production and activities involving harmful or exploitative forms of forced labour and/ or child labour as defined by national regulations.

The Bank has also drawn up a negative list of goods harmful to physical health and the social environment, and excludes them from its operations for both the public and private sectors. These include the following items: alcoholic beverages, tobacco, radioactive materials, platinum, pearls, precious stones, gold and related products, nuclear reactors and related products, weapons, ammunition and other goods used for military and/or paramilitary purposes, luxury consumer goods, and goods harmful to the environment.

All activities or acquisitions planned by the project must comply with the List.

3.10.14 Disclosure and Access to Information Policy (May 2013)

The Bank has reviewed its policy on Disclosure and Access to Information of 2005 to further reaffirm its commitment to the principles of good governance, especially transparency, accountability and information sharing in its operations. The revised policy is based on the following guiding principles: (i) maximum dissemination; (ii) enhanced access to information; (iii) limited exceptions; (iv) consultative approach; (v) proactive dissemination; (vi) right to appeal; (vii) protection of the deliberative process; and (viii) review clause.

The policy also aims at encouraging States to disclose information to the public, especially to groups directly concerned by the programme; raise public awareness of Bank Group operations, activities, policies, programmes, procedures and functioning, especially facilitating the participation of local populations affected by funded projects, including eligible non-governmental organisations (NGOs) recognised by the Bank Group and other community organisations.

The Programme formulation stage has already been the subject of consultations between the actors and consultations with the various stakeholders. This consultation process must be maintained and reinforced during project implementation.

3.10.15 Integrated Water Resources Management Policy (April 2000)

It aims at promoting efficient, equitable and sustainable development through integrated management of water resources and also at ensuring that Bank-financed activities in the water sector adopt the integrated approach principles. The Bank encourages borrowers to follow and implement an integrated approach to water resources management. Water resources management must always operate within a framework characterised by three interdependent objectives (social, economic and environmental) and seek to meet the corresponding needs in a balanced manner.

3.10.16 Consolidated Civil Society Engagement Framework (July 2012)

The Civil Society Engagement Framework proposes an architecture of reinforced cooperation with civil society organisations (CSOs), totally in line with the Bank's long-term vision, as specified in its Long-term Strategy 2013-2022 titled, "Supporting Africa's Transformation".

The engagement framework is part of AfDB's new mechanisms and strategies, making it possible to better understand and integrate the aspirations of African citizens. It reflects the

AfDB's commitment to greater transparency and accountability to its member countries and the public. The framework proposes four areas of collaboration with CSOs likely to be of major interest: environmental and social safeguards, the independent review mechanism, action carried out in fragile RMCs, and outreach and communication work.

Non-governmental organisations (NGOs) and community-based organisations (CBOs) are important stakeholders in Bank-supported operations. Ideally, stakeholders are identified and invited to contribute to project design from the early stages of identification and during implementation.

3.11 Comparison between AfDB policies and national regulations

As a reminder, GCF standards are fully consistent with the AfDB's environmental and social policy. Also, in environmental and natural resources management, Guinea has a relevant political and regulatory framework that allows for the mainstreaming of environmental and social aspects during project formulation and implementation. However, it is often at the level of implementation that various shortcomings appear, linked in particular to the lack of or limited resources.

Similarly, despite the changes noted, there are discrepancies with AfDB policies (more formalised), in particular on aspects relating to communication, the degree of participation and involvement of actors, the level of commitment to gender aspects, consideration of vulnerable groups, information disclosure, etc.

Consequently, during programme implementation, in the event of discrepancy, the Bank's policy which is the most inclusive, the most formalised (existence of an independent review mechanism, etc. in addition to a consolidated civil society engagement framework,), and which therefore presents the highest standard in the area of safeguards, will be applied.

Table 5: Points of Convergence and Divergence between OS 1 and National Legislation.

No.	Provision of OS 1	National Legislation	Compliance Analysis
1	<i>Environmental and Social Assessment</i> Operational Safeguard 1 (OS1) is triggered if a project's activities are likely to generate one of the following negative impacts and present risks to the environment and the population	In accordance with Implementing Decree D/2019PRG/SGG of 26 July 2019 and Law LN°/2019/0034/AN of 4 July 2019 on the Environmental Code, any development project or works implementation or an operation that may affect the environment is subject to a prior environmental and social impact assessment.	Alignment of OS 1 with national legislation.
2	<i>Preliminary Environmental Assessment</i> OS 1 classifies projects as follows: - Category 1: significant or irreversible negative impacts - Category 2: Potential negative impacts that are smaller than those of Category 1 projects -Category 3: Insignificant negative impacts.	The implementing decree D/2019PRG/SGG of 26 July 2019 of the Environmental Code defines the classification of projects: High impact: subject to an Environmental and Social Impact Assessment (ESIA) Reduced impact: subject to an Environmental Impact Statement	Alignment of OS 1 with national legislation.

No.	Provision of OS 1	National Legislation	Compliance Analysis
3	Participation publique : La SO 1 exige une large consultation de l'ensemble des parties prenantes et des populations concernées.	Order No. A/2013/474/MEEF/CAB, the general guide on environmental and social impact assessments, stipulates that public information and participation must be ensured during the process through the organisation of consultations and public hearings.	Alignment of OS 1 with national legislation.

IV. PROGRAMME ENVIRONMENT DESCRIPTION

This chapter describes and analyses the biophysical and socio-economic characteristics of the areas targeted by project activities.

The SCPZ will be implemented in the Boké and Kankan regions. However, given its nature, the activities of this transformative programme will have effects and impacts on the entire country.

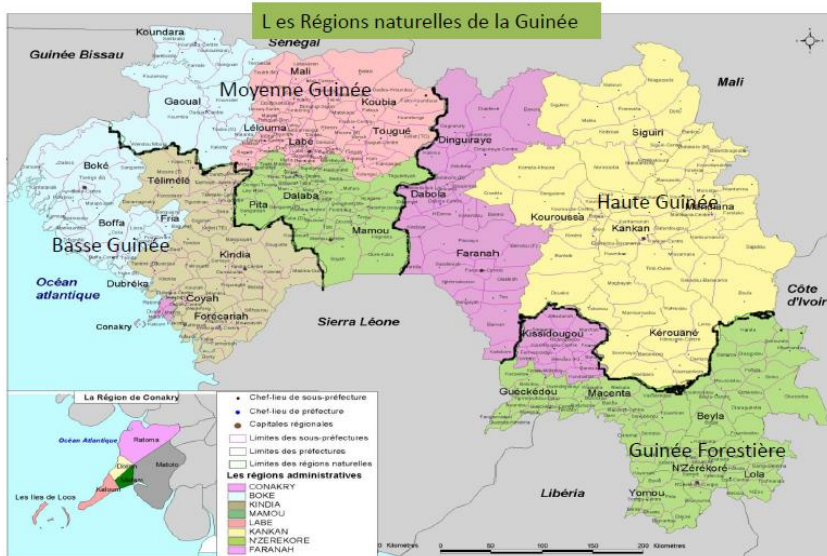
4.1. General features of the impact area

The Republic of Guinea is a coastal country with 300 km of Atlantic coastline, located in the south-west of West Africa with a surface area of 245,857 km².

4.1.1. Eco-geographical features

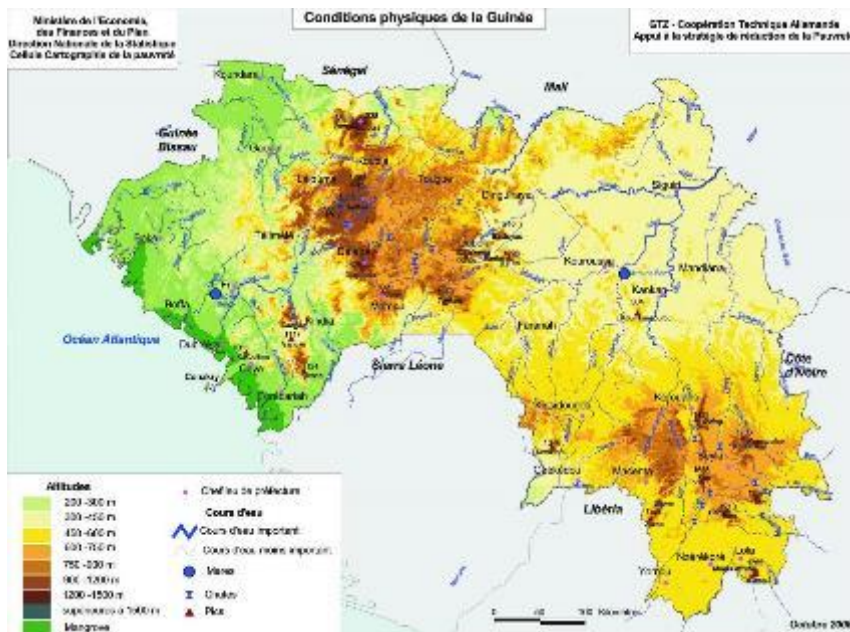
The ecological diversity subdivides the territory of Guinea into four very distinct natural regions (see Map No. 03): Maritime Guinea (18% of the surface area), Middle Guinea or Fouta-Djalon (24%); Upper Guinea (39%) and Forest Guinea (18%). The programme targets areas located in Lower and Upper Guinea. However, each natural region has its own features and has resources and potential distinct from others, but complementary.

Map No. 1: Map of Natural Regions of Guinea



From west to east, there are four major geomorphological units: (i) coastal plains and lowlands; (ii) the massifs and high plateaus of Fouta-Djalon; (iii) the peneplains of Upper Guinea; (iv) granite and gneiss massifs separated by more or less wide valleys and lowlands.

Map No. 2: Physical conditions of the Country



Map No. 3: Hydrographic network



Source:

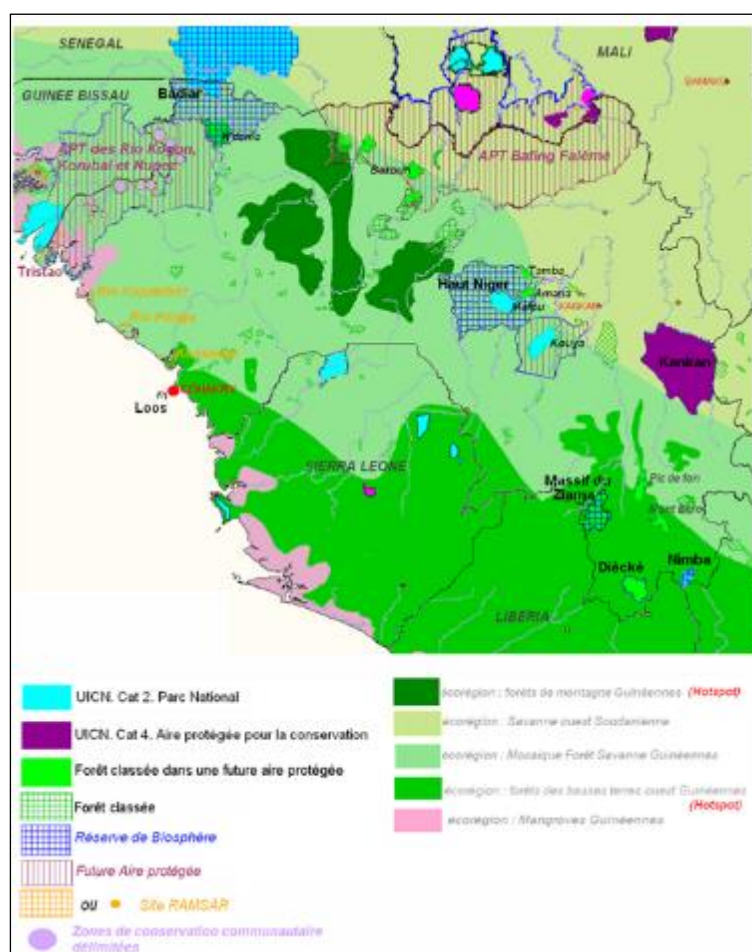
<https://www.google.com/search?sa=X&q=bok%C3%A9+guin%C3%A9+carte&tbm=isch&source=univ&ved=2ahUKEwiqpYLjs7TgAhXizIUKHfMMCPkQ7Al6BAgFEA0&biw=1348&bih=589#imgrc=wltxnAFWjaM-MM:>

Guinea still possesses varied forest ecosystems, made up of mangroves, humid forests, dry forests, diversified flora and fauna, and sites of great ecological interest erected as protected areas. However, in some areas, the rural populations continue to exercise their customary land rights on these lands. Most Protected Areas no longer retain their original areas, they are invaded by local residents for habitat and other productive activities.

The country is home to a unique heritage in terms of biodiversity, especially in its remnants of dense rainforests classified as High Biodiversity Hotspots by Conservation International; and as one of the 200 most remarkable eco-regions regarding habitats worldwide in terms of endemism and species richness by the World Wide Fund for Nature (WWF).

The country also has immense potential in terms of biological resources, and together with its neighboring countries, hosts international transboundary sites with ecosystems that are the least degraded in West Africa. However, this heritage is currently facing accelerated degradation resulting from several factors (climatic and anthropogenic). According to the results of the 2014 GPHC, about 97% of households use firewood or charcoal as a source of energy for cooking. This points to strong pressure on forest resources.

Map No. 4: Protected Areas and Eco-regions Map.



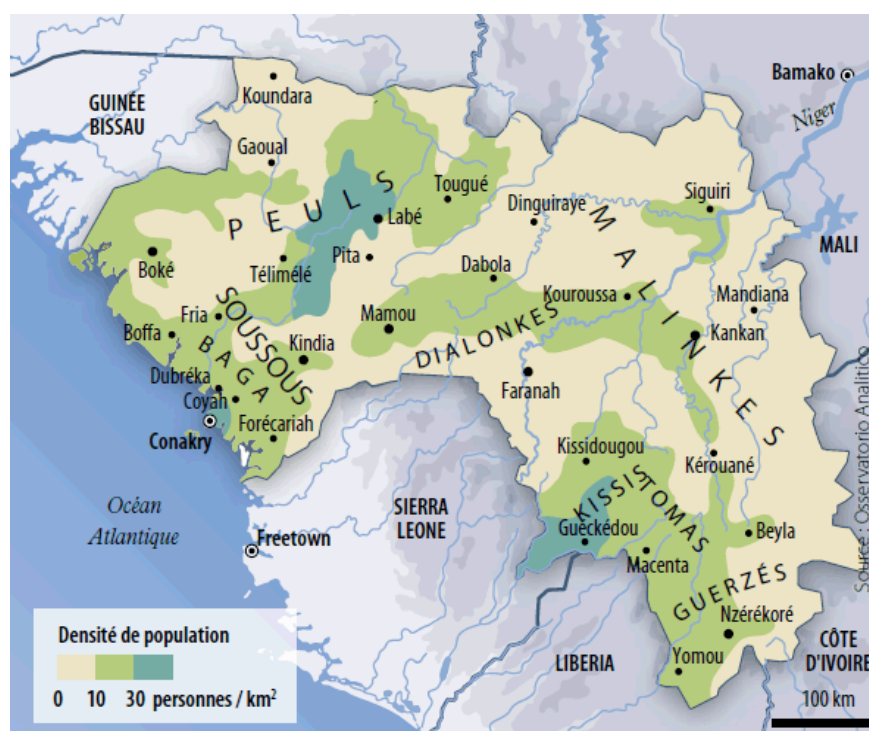
The four natural regions (Maritime Guinea or Lower Guinea; Middle Guinea; Upper Guinea and Forest Guinea) are sub-divided: (i) eight (08) administrative regions, which are named after the city that is their capital (Conakry; Boké; Kindia; Mamou; Faranah; Kankan; Labé and Nzérékoré); (ii) 33 prefectures and 33 urban municipalities which correspond to the capital cities of the prefectures, plus the five municipalities of Conakry; and (iii) 303 rural communities. The communes are divided into neighborhoods while the sub-prefectures are divided into districts.

The country's population was estimated at 10,751,336 in 2015. It is predominantly young, with 86.33% under 45 years of age and 44.9% under 15 years of age, with a growth rate of 2.8% (GPHS 2014). The main ethnic groups are Malinke, Soussou and Peulh.

Map No. 5: Guinea's Administrative Regions



Map No. 6: Breakdown of Key Ethnic Groups in Guinea



Source :<https://www.google.com/search?sa=X&q=bok%C3%A9+guin%C3%A9+carte&tbm=isch&source=univ&ved=2ahUKEwiqPYLjs7TgAhXiziUKHfMMCPkQ7A16BAgFEA0&biw=1348&bih=589#imgsrc=wltxnAFWjaM-MM>:

Despite its significant natural resources and potential, Guinea has recorded an HDI of 0.466 (2018). However, the HDI falls to 0.310, a loss of 33.4%, if one takes into account the inequalities in the distribution of HDI dimension indices. Guinea's human inequality coefficient is 32.2% (see table above).

Table 6: Guinea's in 2018

	IHDI Value	Overall Loss (%)	Human Inequality Coefficient (%)	Inequality in Life Expectancy at Birth (%)	Educational inequality (%)	Income inequality (%)
Guinea	0.310	33.4	32.2	31.3	48.3	17.1
Afrique subsaharienne	0.376	30.5	30.4	29.7	34.0	27.6
IDH faible	0.349	31.1	30.9	30.4	37.4	25.0

Source: 2019 Human Development Index Report, UNDP

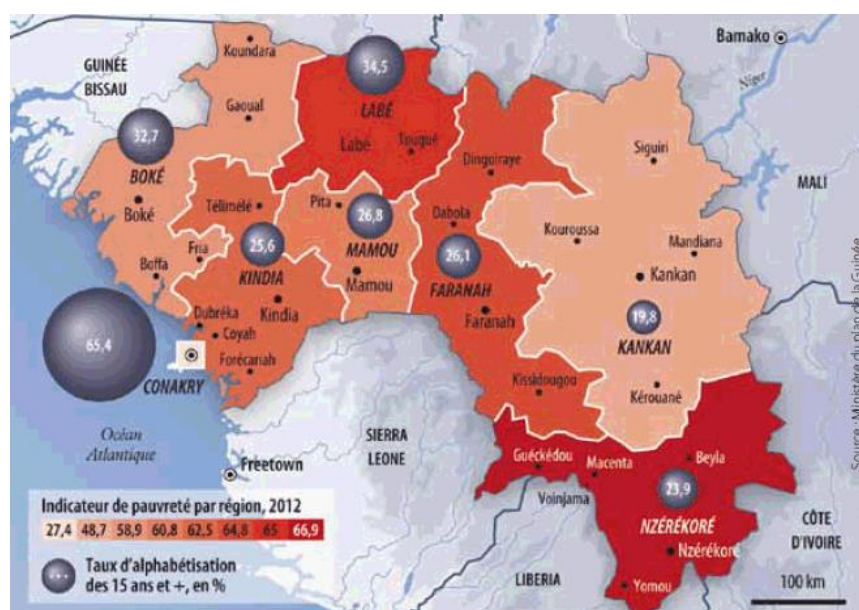
According to the results of the multi-dimensional analysis of poverty conducted using GPHC3 data (2014), the incidence of poverty would be 68.7%, (33.1% in urban areas, compared to 87.7% in rural areas) in 2014. Poverty manifests itself through lack of capacity in the major well-being areas: illiteracy, malnutrition, low life expectancy, poor health, unsanitary housing, and reduced participation in economic and social life. An assessment made in 2015 shows that more than 17% of the total population is food-insecure, and more than 0.5% are severely food insecure. The 2015 SMART survey revealed that in Guinea, 25.9% of children under the age of five suffer from chronic malnutrition (moderate and severe) of which 16.7% are moderately malnourished and 9.2% are severely malnourished.

Table 8: Household living conditions

Money poverty	2003	2007	2012
Poverty line	GNF 387,692	GNF 1,590,894	GNF 3,217,305
Incidence P0	49.1%	53.0%	55.2%
Depth P1	17.2%	17.6%	18.4%
Severity P2	8.1%	8.2%	8.4%

Source: Household Survey/INS/MPCI

Map No. 7: Poverty Indicators by Region Map



4.1.2. Energy Situation

Guinea's **energy situation** is characterised by a predominance of traditional energies (wood and charcoal), a low rate of access to electricity (about 18% national average) with very significant differences between urban areas (access rate 47.8% on average) and rural areas (access rate 3% on average); significant hydro-electric potential, estimated at 6,000 MW for guaranteed annual energy of 19,300 GWh, though still very little exploited (around 6%); forest resources estimated at 30 million m³ of wood; etc.

The significant solar and wind energy potential is largely under-exploited. Average annual irradiation is estimated at 4.8 kWh/m²d, for an annual average duration of sunshine of 2,000 hours (Conakry) and 2,700 hours (Kankan). As for the wind potential, the wind speed in Guinea is within a range of 2 m/s to 4 m/s and is therefore favourable.⁵

4.1.3. Climate Change Impact

Located at the gateway to the Sahel, Guinea is highly exposed to **climate change**. Forecasts point to a general increase in annual mean temperatures (especially in the country's North-west and North-east), a change in the frequency and intra-annual distribution of rainfall and an increase in the sea level.

The country ratified the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol in 1993 and 2005 respectively. It has since developed strategies to combat climate change, including its initial National Communication, on the basis of an inventory of greenhouse gases (GHG) in 2001 (based on 1994 emissions). A second inventory was conducted in 2011 (2000 emissions), but it did not lead to a new national communication.

According to 2100 Climate Projections, temperatures will rise throughout the country and more specifically: (i) in Middle and Upper Guinea (the country's north-west and north-east areas),

⁵Source; Assessment and Analysis of Gaps in relation to the objectives of SE4ALL Guinea, Energy For all UNDP 2014

by about 0.4 to 3.3°C, with a sensitivity of 2.5°C; (ii) in Lower Guinea and Forest Guinea (south-west and south-east areas of the country), from 0.3 to 2.7°C with a sensitivity of 2.5°C. This rising temperature will be accompanied by changes in the distribution and volume of rainfall. These changes could reach 36.4% of the present norm from 2050 and 40.4% in 2100. This drastic drop in rainfall will have significant impacts on water resources (surface and underground) and on the country's main socio-economic sectors.

However, despite its modified rainfall regime, Guinea should continue to enjoy more favourable climatic conditions compared with its northern neighbours (Senegal and Mali). Climatic data (more details on the heights and number of rainy days between 1984 and 2015 in the country's 8 regions, as well as average monthly temperatures) is provided in the Annex.

However, climate change is manifested through: (i) an increase in meteorological events (floods, drought, heat waves especially in Upper Guinea); (ii) a disruption of many ecosystems with the possible extinction of 10 to 15% of animal and plant species; (iii) health risks related to the transmission of animal diseases likely to present pathogenic elements potentially dangerous for humans; and (iv) population displacement.

Forest resources are among the most vulnerable resources to climate change because of the impact of human activity on forest ecosystems (**carbonisation, excessive tree felling, nomadic pastoralism, agricultural clearing**, mining, uncontrolled food gathering, etc.).

In terms of greenhouse gas emissions, Guinea remains a very low emitting country. However, between 1994 and 2015, these emissions rose 21.5 times, that is, an average annual increase of almost 10%. This means they doubled almost every 7.2 years. Guinea's objective in this area is to reduce its greenhouse gas emissions by 13% by 2030, compared to the 1994 level. In the forestry sector, this commitment concerns the stabilisation, by 2030, of the mangrove area, the reforestation of 10,000 ha per year and ensuring the preservation of classified forests and protected areas.

Guinea therefore remains a very low emitting country, with GHG emission per capita of 2.1 tCO₂e/inhabitant in 1994 and than 0.1% of global emissions. The annual growth rate of emissions is estimated at + 4.4%, which means they more than doubled a little every 20 years.

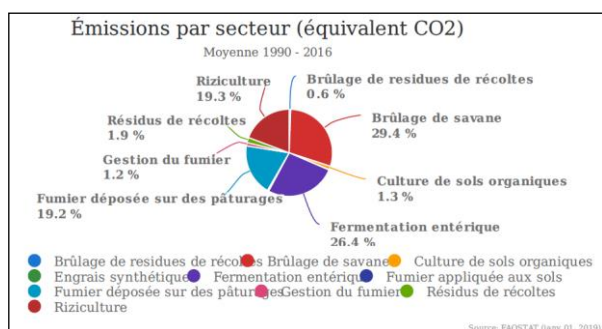


Figure 3: Emissions by sector (CO₂ equivalent)

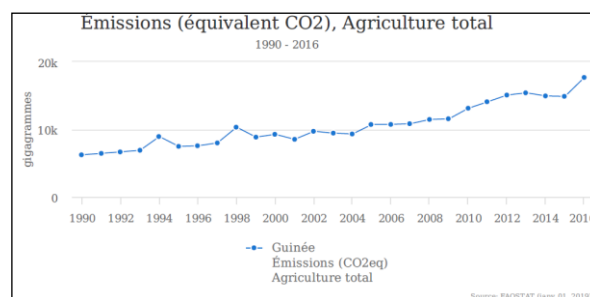


Figure 4: Emission (CO₂ equivalent) Total agriculture

The country has also developed its National Action Plan for Adaptation to Climate Change (PANA) which helped identify the following vulnerable sectors: agriculture-livestock, water, coastal zone and forestry; and the groups most vulnerable to climate change, particularly the

poor in rural areas, such as farmers, small-scale producers and women producers, or those whose activities depend mainly on the exploitation of natural resources (hunters, fishermen, salt growers, etc.). The plan recommends, in the agricultural sector, to support the rural communities' adaptation efforts to develop agro-sylvo-pastoral techniques that allow them to continue their activities and preserve the resources on which they depend.

To deal with these challenges, several options and strategies were identified: the development of renewable energies, the improvement of energy efficiency, the reduction of pressure on forests through sustainable forest resources and land management practices, the development of agricultural and pastoral practices adapted to climate change, etc.

4.1.4. Gender and Women's Empowerment Aspects

With women comprising 52%, Guinea's population is mainly young, with 86.33% below 45 years old and 44.9% below 15 years old (GPHC 2014). Remarkable progress has been made in the education sector, especially in primary education, though with persistent disparities between girls and boys, in both urban and rural areas.

In 1994, the net enrolment rate for boys was 1.5 times that of girls. This ratio fell to 1.2 in 2002, and stabilised at 1.1 in 2007, 2012 and 2016. The primary school enrolment rate in 2015 was 81% for boys and 69% for young girls. Girls' enrolment at secondary and higher levels is much lower, with percentages of 23% in secondary education and 6% in higher education, against 37% and 14% respectively for men (GGGR, 2015).

According to the findings of GPHC3 (2014), throughout the country, only around one in three adults (32%) can read and write in any language. The literacy rate for men (44%) is double that of women (22%). The literacy rate in urban areas (55%) is three times that in rural areas (18%).

Table 7: Guinea's Gender Development Index (GDI) in 2018

	W/M ratio	HDI values		Life expectancy at birth		Expected duration of schooling		Average duration of schooling		GNI per capita	
	GDI value	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Guinea	0.806	0.413	0.513	61.7	60.5	7.7	10.3	1.5	3.9	1 878	2 (89)
Sub-Saharan Africa	0.891	0.507	0.569	62.9%	59.4	9.3	10.4	4.8	6.6	2 752	4,133
Low HDI	0.858	0.465	0.542	63.0	59.7	8.5	9.9	3.8	5.8	1,928	3,232

Source: Human Development Report 2019, UNDP

Despite their number, women are largely under-represented within the administrative apparatus, especially in decision-making positions. Among civil servants, only 26% are

women, most with limited responsibilities. In 2019, there were only seven women in the Government, out of more than thirty members. Of the 33 prefectures in the country, only two were headed by women, and only one governorate out of the eight in the country was under the control of a woman. Despite the law establishing a 30% quota for women on all electoral lists, only 25 women were elected to the National Assembly, i.e. 19.2%.

According to the findings of the National Survey on Gender-Based Violence in Guinea (Ministry of Social Action, Promotion of Women and Children, 2016), this phenomenon is cause for concern. In 2016, eight in ten women had experienced some form of violence since they turned 15, compared with nine in ten women in 2009. Physical violence (56% in 2016, compared with 77% in 2009) and sexual violence (29% in 2016 compared with 50% in 2009) are still predominant, even though the level significantly reduced between 2009 and 2016. In 2016, two women aged 15 or above out of five (41%) suffered domestic violence over the last 12 months preceding the survey.

In 2016, nearly one in five women aged 15 or above (19.3%) suffered sexual violence over the last 12 months preceding the survey. The practice of female genital mutilation/excision (FGM/E) still continues due to the perpetuation of a cultural and religious requirement which many communities still find it difficult to abandon.

Guinean law sets the legal age of marriage for girls at 17. In 2016, more than one in five girls (21%)⁶ married before the age of 15, and more than half (55%) before 18 (64% in rural areas, and 70% among households in the poorest economic quintile).

In connection with the project, the analysis of the structure of labour income from the perspective of the contribution of gender shows that only 27% of labour income was held by women, against 63% by men. In the rural sector, according to the PNIASA report, in 2013 agricultural activities were mainly practised by women. On average, there were 144 women for every 100 men of the active agricultural population at national level, or 87% of the active female population. They accounted for 53.3% of the agricultural workforce, and are mostly illiterate. They devote 80% of their working time to agricultural activities.

Consultations with this target revealed that women are faced, among other difficulties, with the exodus of young girls and teenage pregnancies; difficulties in accessing land and credit; the low rate of access to basic socio-economic infrastructure and equipment (rural roads, health post, school, electrification, drinking water, etc.); difficulties relating to preservation, processing and sale of produce; etc.

However, populations, including women, have increasing access to information technologies in Guinea. Indeed, in 2016, about four out of five Guineans (79.1%) had a mobile phone, 8.3% of which was a smartphone. Less than one in ten girls aged 15-24 (8%) had ever used a computer. Almost one in five young women (15-24 years) (19.4%) had used the internet.

Despite the significant advances noted in the gender domain, the roles and responsibilities of men, women and children in society are still determined by a value system based on a certain social hierarchy and the persistence of certain socio-cultural and religious beliefs. These disparities are constructed and generally based on the traditional division of labour, which entrusts women and girls with other important workloads in addition to domestic tasks.

⁶ Source: National survey on gender-based violence in Guinea, Ministry of Social Action, Women's Promotion and Children, 2016

These gender inequalities and disparities are already evident from an early age in the education and training sector, where, despite efforts, girls suffer considerable educational losses. These inequalities between men and women also exist in terms of access, training, employment, credit and land, basic socio-economic services and facilities in general (education, health, water, sanitation, etc.).

These inequalities have led to the "feminisation of poverty" and the marginalisation of women. At the level of local governance and leadership, the proportion of women is quite low, both in terms of access to decision-making positions in the public administration and private companies and their representativeness in the offices of decentralised structures, socio-professional organisations, as well as in the number of economic operators or business leaders.

Women are still subject to various forms of violence, discrimination and injustice. Forced and early marriages, domestic violence, as well as sexual violence, are the most recurrent forms of violence against girls and women in the country.

Despite these inequalities, Guinean women play a considerable role in political, community and income-generating activities (market gardening, rice cultivation, animal husbandry, harvesting, trade, handicrafts, product processing, etc.).

4.1.5. Programme-related Land Issue

Despite their considerable positive impacts, hydro-agricultural development projects with total control of water and their related developments (irrigation and drainage systems; access roads, electrification, etc.) require land acquisitions and generally encroach on agro-sylvo-pastoral spaces and generate, depending on their size and the context, loss of assets, activities or access to some resources.

Despite the considerable existing potential, it appeared during the consultations that the provision of large areas of land to investors without their involvement, in some cases, met with reluctance from the communities, in addition to the constraints on the implementation of the existing instruments governing land management (superimposition of modern law and customary law) and difficulties in implementing instruments governing the occupation and management of rural areas.

According to the administrative authorities and heads of the technical services consulted in relation to land issue, the main constraints regarding the challenges of the SCPZ relate to the non-existence or non-operationalisation of land development and management plans identifying and allocating space depending on uses (agriculture, livestock, forestry, housing, etc.) and, in particular, the non-existence or failure to keep or update books or land registers mentioning and locating the owners and beneficiaries.

According to the Report on the Accelerated Programme for Food and Nutrition Security and Sustainable Agricultural Development in Guinea (2016-2020), land issue is a major economic, social and cultural concern in Guinea. The land situation is characterised by: (i) ineffective implementation of the Code on Private and State-owned Land; (ii) failure to take into consideration the interests of some social groups (traditional communities holding land rights in villages, groups of producers, women and young people, users of developed areas, etc.); (iii) low level of decentralisation of land management (low accountability of local communities); (iv) multiple stakeholders; (v) absence of a coherent land management policy in rural areas; (vi) lack of harmonisation between the various instruments governing rural land resources

management. According to the same Report, most stakeholders are unaware of the existence of the Code on Private and State-owned Land (CFD) which is inconsistent with the realities of rural areas.

The Code on Private and State-owned Land (CFD) currently in force is the result of a long process. Before colonisation, there was collective land use and management according to the customary system, characterised by the absence of private and individual ownership of land and natural resources in general. This spirit still exists in some communities.

During the colonial period, the organisation of the land ownership system began with the 24 March 1901 Decree on Guinea, and that of 24 July 1906 on French West Africa (Senegal, Côte d'Ivoire, Dahomey, Guinea, etc.). Later, the framework was reinforced by the Decree of 26 July 1932, which grants access to the land books of the natives. By the mere fact of registering their land, their rights as precarious holders were transformed into rights of owners, within the meaning of French law.

After the country gained independence, the Government put an end to this colonial management with Decree No. 242/PRG of 1959 which made all Guinean lands the property of the State. Following the advent of the liberal system in 1984, the main instrument has been the Code on Private and State-owned Land (CFD) adopted in 1992 which repeals the 1959 Decree and brings back the land title system. This Code regulates property rights, determination of the capacity as owner and infringements of property rights.

Alongside the Code on Private and State-owned Land, other instruments such as the Town Planning Code (promulgated in 1998) and the Local Authorities Code (adopted in 2006) also regulate land use and regional development. According to the regulations, land in Guinea is distributed between the public domain of the State and the communities, the private domain of the State and the communities, the land belonging to the individuals and ownerless bare land.

The Code on Private and State-owned Land is no doubt a step forward in terms of securing land rights under a customary regime. It allows those who have collective land rights under customary regimes to register and map their rights. However, there is a considerable gap between these theoretical provisions and local land tenure practices, in particular the failure to apply regulations on land management in rural areas. As a result, there is persistent customary land rights and the populations' refusal to apply official land-related instruments that do not correspond to their particular interests. Much rural land is still unregulated. Most of them are neither registered nor mapped. Customary rights registration procedures are technically difficult to follow and are not affordable. The land registration and land titling procedure begins with the topographical survey, registration at the land tenure plan, consultation of a notary and finally the issuance of the land title by the Land Conservation Office.

Elsewhere, the law establishes equality of property rights between women and men. Unfortunately, in practice, the exercise of such rights is subject to many restrictions. This equal access to land is clearly stated in the CFD (article 19), which provides that any person, without restriction to gender, can have land and in all areas. However, according to the Panel on Support for the organisation of the General Forum on Land and Implementation of the Land Governance Analysis Framework (CAGF, September 2017), less than 15% of land registered in the name of natural persons is in the name of a woman, individually or jointly. The few women holding an official title are found mainly in Conakry, the capital. The persistence of traditional practices means that in many customs and in some areas, women do not have the right to inherit land from their deceased parents or husbands.

In rural areas, customary practices are still very much alive. Within the communities, there is often a dominant lineage which, taking into account its prior occupation of the land, exercises a right of primacy over customary land tenure. Such tenure is not recognised among the types of land ownership provided for by the CFD. In rural areas where traditional rights are still deeply rooted, land disputes quite often pit farmers, breeders and other holders, etc. They also pit the large agricultural and mining companies against the rural population. The crux of the matter is land management control disputed by various stakeholders such as central and decentralised government services, local communities, customary owners and other users.

At the level of valleys and lowlands, in “wetlands” in general where there are various forms of use (forestry, agriculture, fishing and livestock), there are often various conflicts for access to resources, between the different groups of users, which often leads to tensions.

It emerged from the consultations that there are tensions and recurring conflicts between farmers and herders; between the administration and transhumant herders, etc. There are no land use plans or those that exist are not operational. So, neither the herders nor the farmers respect any possible livestock passage corridors which destroy crops and leads to conflicts between the two communities.

According to the findings of the Panel on Support for the organisation of the General Forum on Land and Implementation of the Land Governance Analysis Framework (CAGF), this situation does not promote land security, especially in areas to be developed, or encourage investment in the agricultural sector.

However, in many cases, even though the CFD does not recognise land ownerships not covered by the categories in Article 39, the consultations strongly recommended that no investment or development should be carried out in rural areas without prior consultation with customary landowners.

The programme’s target areas have significant hydro-agricultural potential whose development requires significant investment. Apart from the State and the private sector, the local populations are unable to afford the heavy investments to develop this potential. In a context of co-existence between traditional land tenure systems and the legal system instituted by the CFD, for an investor, land security presupposes the existence of an occupation title which guarantees the holder the legal stability of his situation.

The main challenge of the programme would therefore be to address these weaknesses and shortcomings and to find a model that combines: (i) the need for authorities and local communities to host the agro-industrial zones needed for the development of the targeted territories; (ii) the protection of the interests of communities and populations; and (iii) the preservation of the interests of investors based on the specifications or other forms of agreements, with investors also committing to promote employment and local development by building basic social infrastructure (schools, health centres, roads, drinking water supply, annual subsidies, etc.). The objective is to secure investments and guarantee profitable, sustainable and conflict-free developments.

Initiatives have been underway since January 2016. Guinea is pursuing new efforts at reforming land policies and laws, with the production of two major reports: (i) General Forum on Land (Ministry of the Urban Affairs and Regional Development) in 2016: local, regional and national consultations (CAGF); (ii) Implementation of the road map on agricultural and rural land

(Ministry of Agriculture, 2016 GRET/INSUCO report). The implementation of these recommendations will bring significant progress to the land issue.

In terms of recommendations, the SCPZ should establish close collaboration with all land management stakeholders (government services, communities, customary officials, etc.). Good management of the land issue under SCPZ could be achieved by establishing a representative and functional operational consultation framework bringing together all the stakeholders.

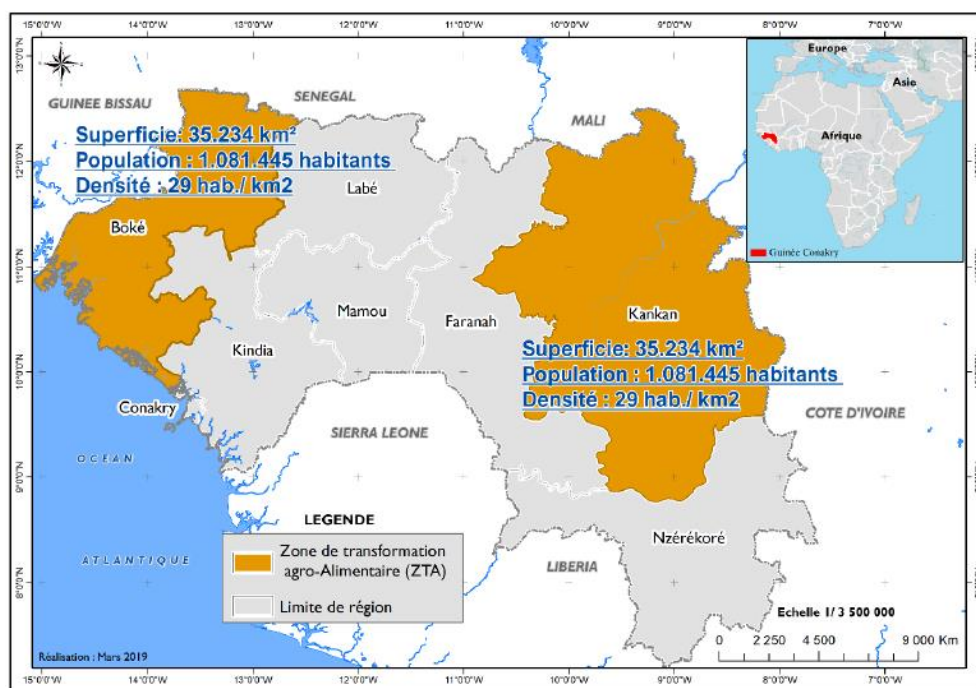
Land acquisition must be the subject of broad consultation and negotiation. An appropriate management system can help ensure: (i) that any land transfer should occur after a prior genuine consensus; (ii) that no form of coercion and pressure has been exercised and there has been no dispute left unattended and unresolved; (iii) that the process leading to the transfer is clearly and precisely documented; (v) that all potentially affected parties will be duly compensated for any losses; and (vi) that communities participate and enjoy the benefits of the programme.

Also, to avoid any conflict with the communities, the use of sacred or religious sites must be totally excluded.

4.2. Features of Programme Impact Areas

The two agro-food processing zones (APZ) targeted by the programme are located in Upper Guinea and Maritime Guinea, in the Kankan and Boké prefectures respectively.

Map No. 8: Project Intervention Zones

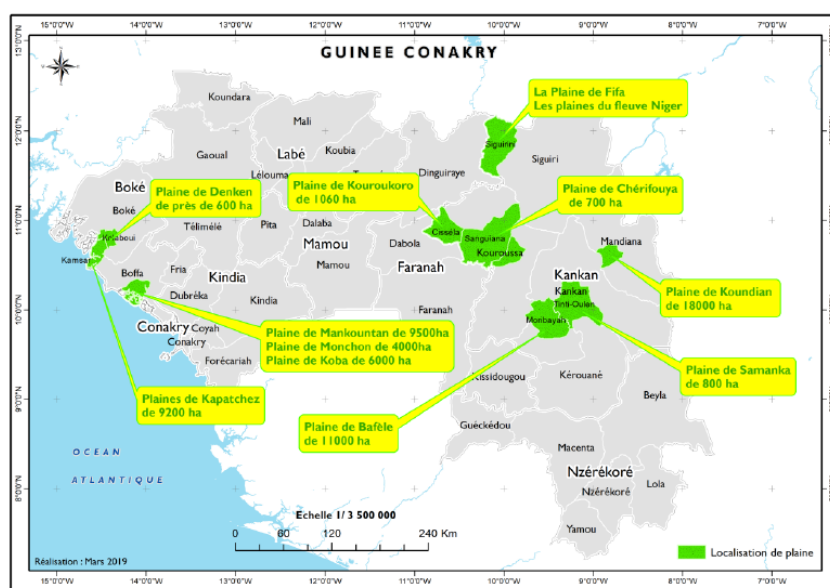


The Boké and Kankan prefectures have significant resources and potential offering possibilities for multiple economic activities.

Table 10: Population, number of households and distribution by sex

Natural regions and prefectures	Number of households	Population			
		Men	Women		Total
		Number	Number	%	
Conakry	238,134	839,607	828,257	15.69	1,667,864
Lower Guinea	334,721	1,123,439	1,192,741	21.79	2,316,180
Boké	61,731	222,119	227,286	4.23	449,405
Middle Guinea	358,254	934,387	1,117,897	19.31	2,052,284
Upper Guinea	278,433	1,305,314	1,340,139	24.89	2,645,453
Kankan	47,005	233,573	238,539	4.44	472,112
Forest Guinea	278,594	939,341	1,007,850	18.32	1,947,191
Total	148,8136	5,142,088	5,486,884	100	10,628,972

Map No. 10: Location of the main sites likely to be developed



4.2.1 Boké Impact Area

4.2.1.1 Main features of the Boké area

The department of Boké is located in the Boké administrative region, located in **Maritime Guinea or Lower Guinea**. Lower Guinea corresponds to the entire coastal zone at the foot of the Fouta-Djalon mountain, hosting one-third of the country's population (about 7.1 million inhabitants). It is home to Conakry, the capital, which polarises all the other regions of the country. With the presence of the Atlantic coast, Lower Guinea constitutes the alluvial basin of significant coastal rivers, including Kogon, Fatala, Konkouré and Kolenté. The area is also covered with mangroves (*Rizophora racemose* and *Avicennia nitida*). This natural region of Lower Guinea is also home to the country's major mining centres: the Guinea Bauxite Company (CBG) in Boké, ACG in Fria, the Kindia bauxite company (Débélé), etc.

The administrative region of Boké is bordered to the east by the administrative region of Labé, to the west by Guinea-Bissau and the Atlantic Ocean and to the south by the administrative region of Kindia. It covers a surface area of 35,234 km². It comprises five (5) prefectures: Boké, Boffa, Fria, Gaoual and Koundara. The population was estimated at 1,081,445 inhabitants in 2014, with an estimated density of around 29 inhabitants/km². Population growth is estimated at 2.3%.

It comprises a marshy coastal area behind which spans a plain rising gradually to the foot of the Fouta Djallon mountains. Its relief is marked by the presence of more or less rugged mountain chains (Malanta, 961 m; Nigué, 1,134 m; Badiar, 505 m) interspersed with valleys. Its hydrography is made up of rivers with irregular regimes (Tominé, Tinguinlinta, Fatala and Konkouré).

It has Guinean Sudanese climate characterised by two (2) alternating seasons: a dry season and a rainy season. The average annual temperature in Boké is 27.5°C. There is a difference of 4.3°C between the lowest and the highest temperature throughout the year. April is the hottest month, with an average temperature of 30.2°C. December, the coldest month, has an average

temperature of 25.9°C. The average annual rainfall is 2,513 mm. A difference of 726 mm is recorded between the driest month and the wettest month (January and August).

Figure 5: Boké climate diagram

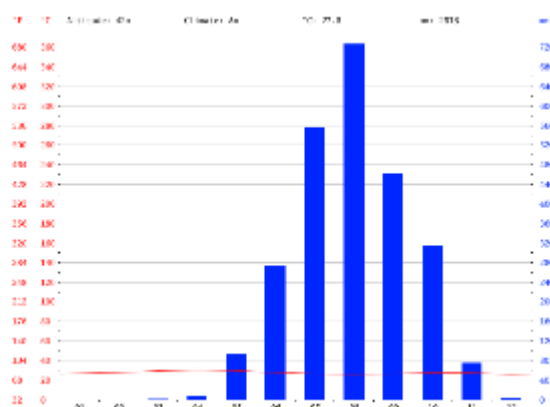


Table 8: Boké climate data

	January	February	March	April	May	June	July	August	September	October	November	December
Average temperature (°C)	26.7	27.6	29.3	30.2	29.5	27.7	26.4	26	26.4	27.2	27.1	25.9
Average minimum temperature (°C)	15.2	17.6	19.3	21.2	21.8	21.2	20.8	20.6	20.4	20.9	19.4	16.4
Maximum temperature (°C)	38.3	37.7	39.4	39.2	37.3	34.2	32.1	31.5	32.5	33.5	34.9	35.4
Average temperature (°F)	80.1	81.7	84.7	86.4	85.1	81.9	79.5	78.8	79.5	81.0	80.8	78.6
Average minimum temperature (°F)	59.4	63.7	66.7	70.2	71.2	70.2	69.4	69.1	68.7	69.6	66.9	61.5
Maximum temperature (°F)	100.9	99.9	102.9	102.6	99.1	93.6	89.8	88.7	90.5	92.3	94.8	95.7
Rainfall (mm)	0	0	1	6	93	274	557	726	463	315	75	3

Source: <https://fr.climate-data.org/afrique/guinee/region-de-boke/boke-717959/>

The presence of the coastline gives Boké specific ecosystems, as presented in the table below.

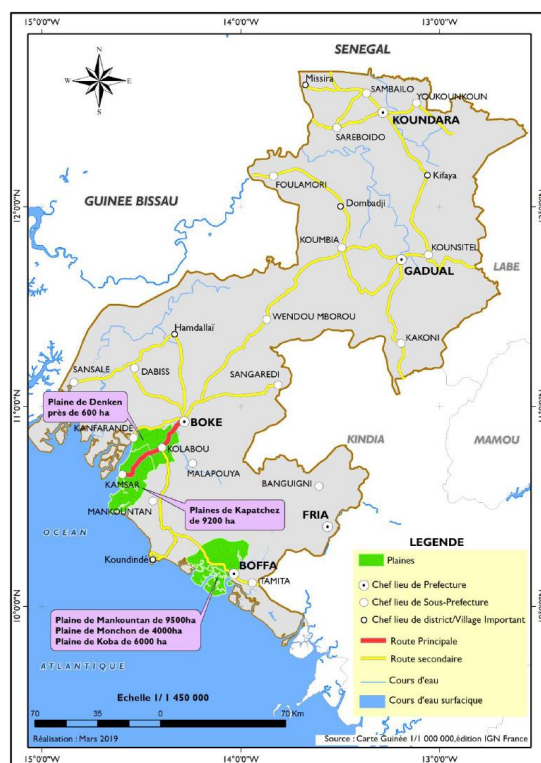
Table 19: Boké Coastal, marine and island ecosystems

Name	Locations	Surface areas (ha)	Classification year
Ramsar Site of Tristao Island	Boké	85,000	1992
Ramsar Site of Alcatraz Island	Boké	1	1992

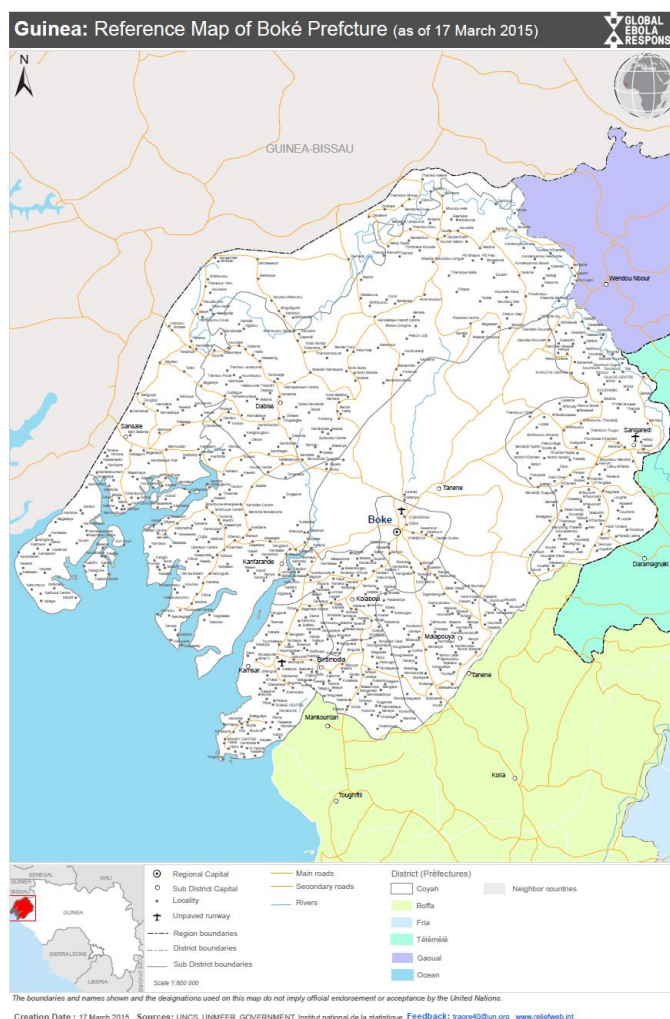
Name	Locations	Surface areas (ha)	Classification year
Ramsar Site of Kapatchez Delta	Boké	20,000	1992

Source: Environmental Observation, Monitoring and Information Centre (COSIE)/MEEF

Map No. 18: Location of the main sites likely to be developed



Map No. 19: Features of the Boké area



4.2.1.2 Programme-related Production Systems

The Boké Prefecture targeted by the programme which has an Atlantic coastline (200 km) is also a major agricultural production, mining and fishing (artisanal and industrial) area. The agricultural land potential is 1.3 million hectares, 0.38 million of which has been developed. The main crops are rice, coconuts and palm kernels, cassava, vegetables, cola, bananas, pineapples, citrus fruits, etc.

Small breeding is booming. There is increasingly significant transhumant herding in this region, mainly from the Fouta Djallon which often competes with agriculture and leads to various conflicts in the use of space and water resources.

There are no longer any really significant forests outside certain protected areas which are still relatively well preserved. Forests cover about 8% of the area, divided into 50,000 ha of remaining dense mesophilic forest (the Kounounkan relic forest in Forécariah) and about 250,000 ha of mangrove formation. The forestry potential's degradation is the result of agricultural land extension, mining sector development and firewood exploitation, especially to supply energy to Conakry.

There are three programme areas sub-zones in Boké:

- the coastal sub-zone whose geomorphology is characterised by the presence of marshes and alluvial-fluvio-marine soils where mangrove rice cultivation, fishing, salt extraction and market gardening are practised. It is also an area of cattle transhumance coming from Middle Guinée. Salinity, marine intrusion, floods, water drainage problems, isolation, farmer-grazer conflicts, population influx, pressure on forest resources and land, etc. are the main constraints of this sub-zone;
- a relatively small sub-zone whose geomorphology consists of a coastal plateau with the presence of gravelly and skeletal ferralitic soils, and hydromorphic soils. On these different soils, rice, groundnuts, cashew and oil palm plantations, cola, etc. are cultivated. Pigs, poultry, small ruminants, etc. are farmed there. Slash-and-burn crops, soil erosion and reduction of fallow are the main constraints facing this sub-zone; and
- a sub-zone whose geomorphology consists of a continental shelf with the presence of ferralitic skeletal soils, areas of hydromorphic soils where rice, peanuts, fonio, palm oil, cassava, etc. are grown. Cattle rearing, small ruminants, traditional poultry, slash-and-burn, pressure on cropland, reduction in fallows, low population density and isolation are also the main constraints facing this sub-area.

Regarding the potential sites likely to host the activities of SCPZ, especially the hydro-agricultural developments in the Boké Prefecture, the Denken plains, with an area of about 600 ha located in the Kolaboui rural council and the Kapatchez plains of about 9,200 ha located in the Kamsar rural council offer important development possibilities.

The Boffa Prefecture in the Boké Administrative Region also hosts the Mankountan plain of 9,500 ha, the Monchon plain of 4,000 ha, the Koba plain of 6,000 ha, etc.

4.2.2 Kankan Impact Area

4.2.2.1 Main Characteristics of the Area

The Kankan Department, a programme target area in Haute Guinée, is located about 750 km from the capital, Conakry. This natural region occupies the country's entire north-east and centre. It is bordered to the east by the Republics of Côte d'Ivoire and Mali, to the north by the Republic of Mali, to the south by the N'Zérékoré Administrative Region, and to the west by Faranah. It covers an area of 72,145 km² for an estimated population of 1,986,329 inhabitants in 2014, of which more than 75% are rural inhabitants, or an average population density of 28 inhabitants per km². It is a region of plains and savannah, located between 200 and 400 m above sea level.

The first signs of the Sudano-Sahelian climate appear in this region which is the most arid in Guinea. Precipitation varies between 1,200 and 1,800 mm per year. The dry season is longer there (7 to 8 months) and average temperatures are relatively high there for most of the year (32 to 36°C in summer). Maximum temperatures sometimes exceed 40°C during the months of March and April.

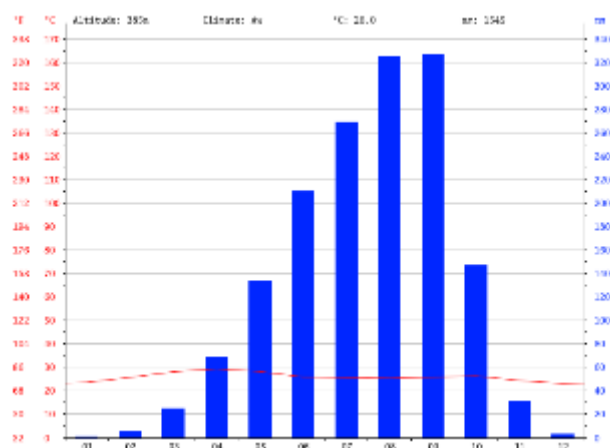
The variation in the precipitation between the driest and wettest months is 326 mm (January and August). The average temperature throughout the year varies by 6.3°C.

Table 10: Kankan Climate Table

	January	February	March	April	May	June	July	August	September	October	November	December
Average Temperature (°C)	23.6	25.7	28.1	29.4	28.2	25.9	25.6	25.3	25.8	26.3	24.4	23.1
Average Minimum Temperature (°C)	11.6	14.2	17.8	20.5	20.1	19.2	19.2	19.2	19.2	19.2	14.8	11.7
Maximum Temperature (°C)	35.7	37.2	38.4	38.3	36.4	32.6	32	31.4	32.4	33.5	34	34.5
Average Temperature (°F)	74.5	78.3	82.6	84.9	82.8	78.6	78.1	77.5	78.4	79.3	75.9	73.6
Average Minimum Temperature (°F)	52.9	57.6	64.0	68.9	68.2	66.6	66.6	66.6	66.6	66.6	58.6	53.1
Maximum Temperature (°F)	96.3	99.0	101.1	100.9	97.5	90.7	89.6	88.5	90.3	92.3	93.2	94.1
Precipitation (mm)	1	5	25	68	134	210	269	325	327	147	31	3

Source : <https://fr.climate-data.org/afrique/guinee/region-de-boke/boke-717959/>

Figure 6: Kankan Climate Diagram



Dense dry forest covers 8.3% of the region, or 800,000 ha. The vegetation is interspersed with thin forest galleries. In certain areas of high human concentration and along certain rivers, the forest has completely disappeared, creating serious problems of soil erosion and riverbed silting. Relatively intact massifs of dense dry forests of 50 to 200 ha, on average, can be found in onchocerciasis-prone and inaccessible areas. However, these massifs face a high threat from agricultural colonisation following the progressive eradication of onchocerciasis, and from bush fires.

The region is home to many gold (Siguiri) and diamond jewellery (Banankoro) mines.

The Upper Guinea Natural Region is home to three RAMSAR sites located in the upper watershed of the Niger River: the Ramsar Tinkisso site (1,228,995 ha), the Ramsar Niger-Niandan-Milo site (1,399,046 ha) and the Ramsar Sankarani-Fié site (1,556,000 ha). These three Ramsar sites cover about 43% of the Upper Guinea Natural Region. The Upper Niger National Park is located in this region. Outside of this area, the Niger River and its tributaries have carved out wet terraced plains which are very favourable to the development of irrigated crops, especially rice cultivation.

4.2.2.2 Programme-related Production Systems

The Kankan Administrative Region has a rich and diversified economic potential consisting of: arable land suitable for all tropical crops; a hydrographic network allowing for hydro-agricultural and energy developments; a rich and varied flora, fauna and livestock.

The cultivable land potential is estimated at over 2.7 million ha (including 100,000 ha of alluvial plains), and 400,000 ha are alleged to be cultivated.

In connection with the programme, sedimentary plains in Upper Guinea border the main rivers and occupy large areas: the Niger plains in Faranah, Kouroussa, Siguiri; the Milo plains, the Fié plains, the Banié-Tinkisso plains, etc.

In Kankan Prefecture, the following sites have significant hydro-agricultural potential: the Bafè plain, about 11,000 ha of irrigable land located in the Moribaya rural council; the Samanka plain, 800 ha located in the of Tinti Oulen rural council.

The exploitation of non-timber forest products (NTFP) is quite developed, thanks to the abundance of néré, baobab, kapok and shea trees. Many women's groups in the area are involved in the processing of these products.

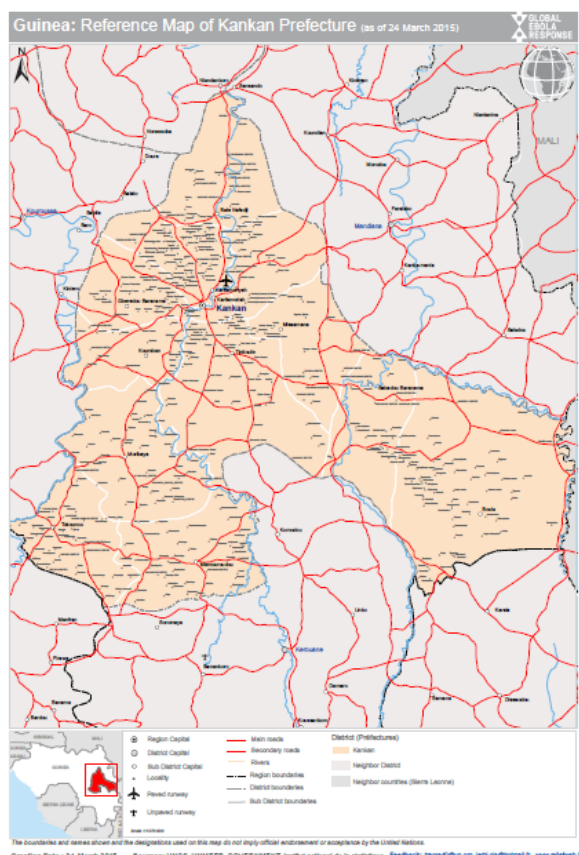
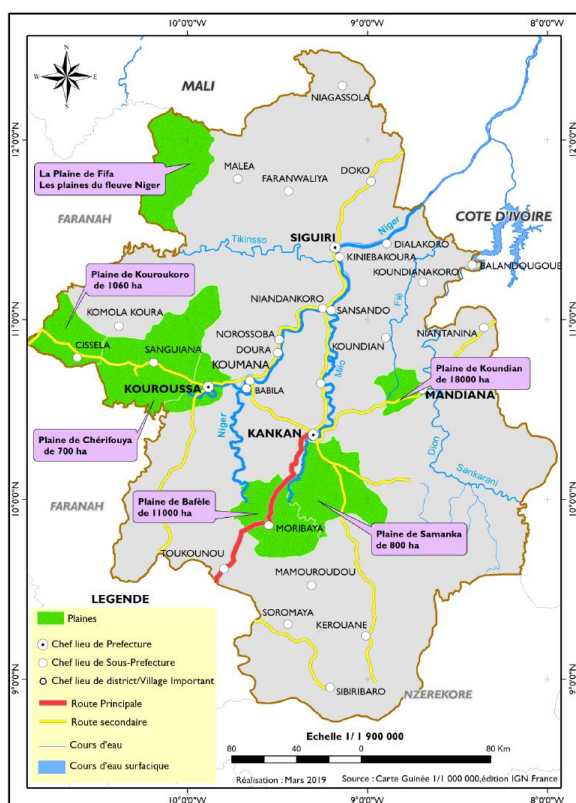
Cattle and small ruminant breeding is important in the region which is also a transhumance area for herds from neighbouring countries. Consultations revealed the existence of multiple conflicts with the indigenous populations, and negative effects of this pastoral system on the natural environments. It is also noteworthy to highlight the existence of land problems arising from the development of hydro-agricultural schemes and the effects of the super-imposition of the legal right embodied by the CFD and customary rights on the land.

It is also a privileged area for river fishing. Artisanal gold mining in particular is a traditional activity of the people of this region.

There are two main sub-zones in the programme impact area in Kankan (prefecture): a sub-zone of basins, with little developed ferrallitic soils, hydromorphic soils and alluvial soils and a sub-zone of plateaus with ferrallitic, hydromorphic and alluvial soils. Vegetation in these two sub-zones evolves from wooded savannah, an almost absence of fallow with heavily cleared woody plants to floodable savannah. Crops grown here are rice, cassava, cotton, groundnuts, corn, sorghum and fruit trees around Kankan; and the breeding of cattle and sheep/goats. Strong land pressure, an irregular flood regime, and rural exodus are the main constraints facing the sub-zones.

The main constraints on the region's development are also linked to cycles of drought and the infestation of certain rivers by onchocerciasis vectors.

Map No. 12: Programme Impact Area (Kankan). Map No. 13: Map with Features of Kankan Area.



4.2.3 Summary of Major Environmental and Social Issues

The assessment-diagnostic and dynamic analysis of the characteristics of programme target areas have shown that they contain significant natural resources, made up of vast areas of forests, protected areas, community forests, natural wildlife reserves, plains, valleys, a dense hydrographic network, and a sub-soil rich in minerals.

However, various threats weigh on these natural resources, resulting from climatic deterioration (recurrent droughts, localized floods, etc.), especially from human action.

In addition to inappropriate agricultural practices, poor exploitation of forest and wildlife resources, poorly controlled mining, bush fires, and various other constraints hamper the sustainable management of resources and potential in target areas. These other constraints include: extreme poverty, low productivity of production systems, the isolation of certain production areas, the low rate of access to socio-economic infrastructure and equipment, weak production and distribution sectors, low capacity of supervisory structures, land insecurity, poor consultation frameworks, low representation of women in governance, low private sector participation in the agricultural sector, etc.

It also emerged from the consultations that the low agricultural production is due to poor mechanisation and poor use of inputs by farmers. Very few producers use chemical fertilisers, herbicides, improved seeds, etc. Losses in harvests are also significant, due to isolation, poor

storage conditions, conservation or lack of processing units. The following tables show the fertilisers and phytosanitary products distribution trend in the area.

Table 14: NPK 17 Fertiliser Distribution Trend (in tonnes)

Administrative Regions	2011/2012	2012/2013	2013/2014
Kankan	2,892	2,390	4,899
N’Nzérékoré	1,592	931	288
Faranah	1,413	904	227
Mamou	575	1,500	743
Kindia	966	1,658	1,284
Labé	602	1,321	844
Boké	1,289	351	599
Conakry	0	212	311
Quantity of Fertilizers Distributed	9,327	9,268	9,197
Quantity of Fertilizers Used	6,775	8,535	1,514

Source: National Directorate of Agriculture/ Ministry of Agriculture

Table 11: Urea Fertilizers Distribution Trends(in tonnes)

Administrative Regions	2011/2012	2012/2013	2013/2014
Kankan	499	1619	2061
N’Nzérékoré	751	81	235
Faranah	239	631	135
Mamou	101	121	21
Kindia	427	663	645
Labé	247	192	106
Boké	262	53	262
Conakry	73	185	36
Quantity Distributed	2,599	3,546	3,501
Quantity of Fertilizers Used	2,752	2,698	442

Source: National Directorate of Agriculture/ Ministry of Agriculture

Table 12: Phytosanitary Products Distributed by the State

Products	Units	2013/2014	2014/2015	2015/2016
Herbicides	Litre	455,030	365,000	62,808
Insecticides	Litre	526,000	39,000	95,000
Pesticides	Litre	445,000	nd	6,150

Source: National Plant Protection Centre/Ministry of Agriculture

Regarding the occurrence of extreme natural phenomena and natural disasters, 8 strong winds were recorded in the Boké region, and 39 floods in the Kankan region, between 2011 and 2015.

Table 17: Water Status for the Period 2011-2013 in mm

	2011			2012			2013		
Station	FTE	Rain	BH	FTE	Rain	BH	FTE	Rain	BH
Boké	1,521	1,808	287	1,486	2,820	1,334	1,094	2,562	1,468
Kankan	1,725	1,193	-532	1,774	1,438	-336	1,968	1,183	-786

Source: Ministry of Transport/National Directorate of Meteorology

Photos Features of Programme Target Areas.		
		
View of the Denken Plain (Boké)	Mankountan Plain (Boké)	View of the Borooko Riverbed Flowing into River Milo
		
Overview Bafèle Plain	Bafèle Plain	View of the Milo Riverbed in Bafèlè
		
View of the Milo Riverbed in Bafèlè	View of the Milo Riverbed in Downtown Kankan	View of the Milo Riverbed in Downtown Kankan

Source SEA February 2019

V. CONSULTATIONS WITH STAKEHOLDERS

A consultation process with the various stakeholders was initiated and maintained from the programme design and evaluation phases, and throughout the development process of the environmental and social assessment during the mission to Guinea (20 January to 17 February 2019). These consultations initially targeted the political and administrative authorities; those

in charge of the technical structures in the capital, Conakry, and then continued to the target areas with the authorities, decentralised technical services, producer organisations, women's groups, populations, etc. (see list of people met in Annex).

These consultations aim at: (i) informing on and discussing the programme with the main actors and stakeholders; (ii) collecting information on the site characteristics and potential environmental impacts in relation to planned activities; and (iii) collecting opinions, perceptions, expectations and concerns, suggestions and recommendations on the project.

5.1. Methodological Approach

Through a participatory and inclusive approach, underpinned by a series of meetings, working sessions with the authorities, technical services, consultations and focus groups with grassroots actors, including, in particular, producers, women's groups active in production and processing, and the beneficiary and other populations likely to be affected by the programme.

5.2. Summaries of Consultations

It emerged from the consultations that planned programme activities are perfectly aligned with the concerns and expectations of the various stakeholders encountered. Yields obtained from farms fail to cover the needs and heavy burdens faced by households, according to various stakeholders. Developing the farming sector is a priority in the target areas, with a large majority especially women, making a living from agriculture.

The main **positive impacts identified** relate to the possibilities of diversifying production activities, increasing the population's income; raising the level of access to socio-economic equipment and infrastructure, improving children's health and women's income, creating jobs, reducing poverty and unemployment, reducing the exodus of youths, etc.

Regarding programme objectives, administrative authorities and officials in charge of technical structures stressed that despite the ongoing decline of natural resources, there still exist very poorly exploited and significant hydro-agricultural resources and potential. According to them, the existing potential can accommodate several agropoles, and the programme will have considerable positive outcomes on the development of localities and on improving the living conditions of communities, a large majority of which live in poverty and precariousness. Also noted were the strong pressure on natural resources, the lack of means to develop the agricultural potential, the lack of technical supervision means, problems and conflicts inherent in the occupation and use of land, marked by the presence of significant flows of transhumance of many herds from neighbouring countries.

The land issue is also a major concern and a source of recurring disputes and conflicts between users and administrative and technical services (farmers-grazers, grazers-forest services, etc.). The main causes of environmental degradation according to the authorities are linked to mining, the development of cashew cultivation, which is done to the detriment of food crops and other cash crops, and transhumance with herds of zebu oxen from Mali and Côte d'Ivoire.

According to officials of the Regional Agricultural Research Centre (CRRA) in Bordo, the choice of the Kankan region to establish an agropole is very relevant given that the agro-pastoral potential is very important in the area. The region offers opportunities for the development of agriculture and livestock. For agriculture, the development of major sectors is possible (rice, corn, yams and cash crops). According to them, agricultural development must

go through a framing of actions, the identification of major sectors to be developed and the organisation of importers and sellers of agricultural inputs (fertilizers and pesticides).

With the services responsible for plant protection (PP), low use of products and few cases of poisoning have been reported. However, the following have been reported: the circulation of unapproved products, weak producer capacities in terms of pest and pesticide management, poor staffing and resources for PP agents. The recommendations relate to increasing staff, training agents and producers (dosage, use of appliances, container management, etc.).

The adverse effects of mining on the environment and the strong pressures it exerts on agricultural land and protected areas were raised as a major constraint and a source of conflict. According to the various interlocutors in the two areas, the activities of mining companies and artisanal exploitation cause nuisances and pollute the soil and water sources making market gardening activities difficult in places. Carbonisation and the harvesting of firewood destroy forests. Wildlife poaching has caused the disappearance of several animal species such as elephants and certain forest species.

With the structures responsible for environmental and social issues at the national and decentralised levels, the interviews focused on the state of evolution and sensitivity of environmental and social components and characteristics of the target areas; on the regulatory and institutional framework and procedures applicable to the programme; on measures to mitigate and optimise potential programme impacts on the environment; on capacities in the area of programme-related environmental and social assessments; on the monitoring system to be put in place, etc.

Several women's groups operate in various fields (market gardening, saponification, processing, rice growing and trade). However, they face several difficulties (lack of financial means and lack of equipment support).

Gender and women's empowerment support services and women's organisations have in the past reported difficulties in accessing the benefits of projects implemented in the area, the heavy women's work-load, the low yields and agricultural production, their low representativeness within decision-making bodies, difficulties of access to credits and agricultural inputs, difficulties related to the conservation, processing and sale of products, etc.

The other local actors (producers, processors, etc.) also mentioned the low yields and agricultural production; difficulties in accessing agricultural inputs; difficulties in accessing land, difficulties in developing irrigable land, weak capacities and lack of mastery of technical routes, the high cost of factors of production, marketing production challenges, poverty and precariousness of households in the area, conflicts between farmers and grazers, etc.

The adverse impacts and potential risks expressed during the consultations relate to the risk of increased pressure on cropland, the risks of land conflict with the establishment of schemes, the increase in conflicts between farmers and herders, proliferation of diseases with the development of schemes; risks associated with the increased use of fertilisers and phytosanitary products, etc.

The following measures and recommendations were made during these consultations: informing and raising the awareness of all stakeholders on the programme's content, the targeted sites, etc.; providing local populations with programme benefits; ensuring the strong involvement of local communities and local customary chiefs; establishing operational

consultation frameworks; opening up production areas; producing operational land use plans and ensuring their application; strengthening agricultural technical supervision; supporting product processing and marketing; supporting the programme with a natural resource regeneration component (reforestation) and a gender and women's empowerment component; building the capacity of producers in the use of phytosanitary products; establishing supporting measures for IGR financing.

5.3. Recommendations/Perspectives

The overall objective of public consultations within the framework of an environmental and social assessment is to initiate the process of informing and involving all programme stakeholders and beneficiaries from the design phase. This consultation process must be formalised, reinforced and continued during programme implementation.

All the actors directly or indirectly concerned by the programme must be informed and involved in its implementation (administrations and technical services, beneficiary communities, local elected representatives, customary authorities, women's and youth organisations, civil society organisations, NGOs, etc.

In this perspective, it is being suggested that programme activity implementation be underpinned by an overall programme of information, awareness, consultation and involvement of the various stakeholders concerned, a compliant handling mechanism, programme support for a natural resource regeneration component (reforestation) and a gender and women's empowerment component.

Pictures Public Consultations.		
 <p>Consultation Session with Administrative Authorities and Technical Services in Boké</p>	 <p>Consultation with Technical Services in Kankan</p>	 <p>Interview with the Chairperson of the Konko Magni Market Gardening Group in Bordo.</p>
 <p>Focus Group with the Benkadi Women's Group of Dalako Processing and Marketing of Products</p>	 <p>Focus Group with Young Producers of Makountan Boffa Prefecture</p>	 <p>Focus Group with an Association of Benkadi Women from Dalako Processors of Products</p>

VI. ANALYSIS OF THE VARIANTS

The variant analysis is based on the analysis of: (i) “with project” option; (ii) "without project" option; and (iii) the comparison between the options.

6.1. Analysis of the "Without Project" Situation

Positive Effects of the "Without Project" Situation

The target areas still have a rich forest heritage and representative biodiversity and significant natural resources, despite the ongoing degradation process resulting from climatic deteriorations and the practice of production systems unsuited to the environment's conditions.

The "without project" option, which consists in not carrying out SCPZ activities due to the non-implementation of programme activities will have no additional adverse impact on the biophysical environment and on the human environment. This option will not contribute to the degradation of natural resources, wildlife habitats, or to the disruption of agro-sylvo-pastoral activities; neither will it lead to the risk of degradation or loss of agricultural land, pollution, nuisance and disruption of the populations' living conditions.

Negative Outcomes of the "No Project" Situation

Despite Guinea's immense wealth of natural resources and the significant potential of agricultural land, it is still one of the poorest countries in the world and the prevalence of malnutrition remains high. In rural areas, the situation is also marked by a low rate of access to basic socio-economic infrastructure and equipment (schools, health centres, drinking water supply, rural roads, sanitation, electricity, etc.); a predominantly extensive and poorly diversified agricultural production system (shifting slash-and-burn agriculture; traditional breeding; poorly practised forestry and agroforestry; the practice of gathering and hunting, unsuitable collection of fuelwood and carbonization, etc.), grassroots community and population involvement is still low in the management of natural resources; low involvement of private sector investors in agriculture, etc.

Consequently, the option which would consist in not implementing the programme would be to back down from improving the precariousness and vulnerability that affect the target area populations and the ongoing process of ecosystem degradation. It would also help reinforce the exodus of rural populations to urban centres, especially to Conakry or to neighbouring countries.

This option does not make it possible to achieve the objectives of self-sufficiency and food security, wealth and job creation, and improving the populations' living conditions and environment. Maintaining the status quo would therefore amount to not seizing the opportunity to develop areas endowed with significant resources and potential, and consequently reinforce the process of impoverishment and marginalisation of rural populations. This alternative would not align with the country's economic, social and environmental policies, nor with the Bank's

priorities, namely: Feed Africa, Industrialise Africa and Improve the quality of life for the people of Africa.

At the environmental level, despite efforts made, the ecosystems and natural resources of the areas targeted by the SCPZ are currently severely affected by a degradation process mainly attributable to human factors and climate variability/change. The "without project" alternative therefore has several considerable impacts and outcomes (drop in income; impoverishment, worsening conflicts in the use of space; continued process of natural resources degradation, etc.).

6.2. Situation “With Project”

Positive Outcomes of the "With Project" Situation

In a context marked by deteriorating climatic conditions and strong anthropic pressure on natural resources, the improvement of production systems, water control and the application of sustainable practices will contribute to better management of agro-sylvo-pastoral resources which are undergoing different forms of degradation. Improving agricultural production and value chains will reduce poverty and insecurity, improve the nutritional situation, empower women, and consequently reduce inequalities and the pressure and attacks on natural resources.

Certain programme activities, especially those planned under GCF financing, will help strengthen the resilience of communities and ecosystems to the outcomes of climate change.

The SCPZ will help improve production systems, generate wealth, help households to increase their incomes and access to basic infrastructure and social services, and improve their living conditions and environment. The programme will also help achieve the Government's objectives in the area of food self-sufficiency and import substitution. The SCPZ will have significant positive impacts on local and national development.

Adverse Effects of the "With Project" Situation

The potential negative environmental and social impacts of SCPZ activities will mainly concern the risks of loss of vegetation and loss of land and sources of income for the communities; and the risk of accidents and nuisances during works. In the operational phase, there will concern mainly for health and the environmental risks associated with the use of pesticides and fertilisers; the risk of conflicts between farmers and herders; etc.

6.3. Variant Comparison Outcomes

The programme has already earmarked various improvement and mitigation measures for the impacts and expected outcomes, including: establishing a Governance System for ZTA Management, building the capacity of agricultural producers and local communities, establishing a programme for the restoration and protection of natural habitats around the facilities and other infrastructure; popularising agroecological practices; producing improved stoves (fighting against deforestation); building the processing capacity of women and youths; setting up a nutritional programme; and strengthening central and decentralised services, etc.

With a good agricultural practices component already planned, the formulation and implementation of a gender promotion and women's empowerment component, and the establishment of operational consultation frameworks bringing together all stakeholders will also allow for considerable optimisation of SCPZ's positive impacts and outcomes. Among

other strong recommendations from the consultations, no programme activity should cut back on protected areas.

The additional activities planned by the GCF (promotion of renewable and alternative energies, promotion of resilient agricultural practices, development of agro-forestry, establishment of climate information and early warning systems to information agro-advisory services, etc.) will contribute to the reduction of GHG emissions in agricultural value chains, thanks to the use of low-carbon energy sources and also enhancing the resilience of ecosystems and communities.

Land is a major issue in relation to the programme's objectives. Most of the agricultural land in the area has a status under customary private law. There are various land conflicts and disputes between users of space and natural resources in the area. This situation could be an obstacle to the valuation of land assets and agricultural development. Therefore, within the framework of SCPZ's implementation, the land acquisition process should be the subject of broad consultation and negotiation. The SCPZ has planned a component to support the development of land law implementing legislation and the operationalisation of the single land window, which will also help to improve land management in the target areas.

Most of the impacts and programme's potential negative outcomes can therefore be avoided or greatly reduced by taking appropriate measures and good practices, some of which are already planned in the programme.

On this basis, the "with project" situation must be prioritised with regard to the advantages it can generate at the socio-economic and environmental levels.

The environmental and social management framework plan (ESMP) resulting from this study also recommended various other measures to enhance the project's positive impacts and mitigate the negative outcomes and impacts.

VII. ANALYSIS AND ASSESSMENTS OF POTENTIAL OUTCOMES AND IMPACTS

After having analysed the political and legal framework applicable to the programme, determined the basic environmental conditions of the intervention areas, analysed the major environmental and social issues in relation to planned activities, submitted the content of the consultations carried out, this chapter will identify, analyse and assess the potential impacts of programme activities on the environments (biophysical and human).

7.1. Analysis and Management of Major Project Risks

In spite of the considerable positive effects and impacts, the establishment of agro-industrial zones and its related developments also presents certain risks which need to be considered.

The targeted areas are sparsely populated and have significant and very little natural resources and potential (water, vegetation, land). Still in the context, access to water and land will be critical to the success of a programme.

The improvement of agricultural production systems presents different risks and conflicts related to the management and use of land and water; the use of inputs, climatic hazards; land conflicts and disputes; etc., as well as the risk of marginalisation and frustration for communities and villages not targeted by programme activities.

Long marginalised, women should benefit from the positive effects of the programme. Certain factors still limit their participation and involvement in development projects. These are mainly: (i) the traditional distribution of activities in rural areas, which often directs women to domestic tasks as well as production activities; (ii) women's difficulties in gaining access to land; (iii) limited access to credit; (iv) lack of technical support and training, etc.

All of these risks must be taken into consideration during programme implementation. Various actions and measures can be taken to reduce them. These include establishing operational consultation frameworks, bringing together all project stakeholders; standardising pesticide use and sensitising all stakeholders (populations, producers, economic operators) on the risks associated with their use; building capacity of the various programme stakeholders and beneficiaries.

The supporting and optimisation measures already planned by the project will take care of an important part of these risks. The Framework for Environmental and Social Management Plan (FESMP) has also proposed other measures to mitigate these potential risks.

7.2. Programme Activities Likely to Generate Potential Impacts

The SCPZ's activities likely to generate outcomes and impacts on the environment are presented in the following table.

Table 18: Programme Components, Sub-components and Activities

Components	Sub-components	Activities
A. Support for Governance and Incentives for the Management of Agro-Parks, and its Sub-components	A1. Establishing a APZ Management Governance System	<ul style="list-style-type: none"> • Providing support for the establishment of agro-industrial platforms (Agro-parks); • Providing support for the development of specifications for agro-parks; • Conducting a feasibility study of the new APZs in Guinea.
	A2. Supporting the Governance of APZ Management	<ul style="list-style-type: none"> • Providing support for the drafting of implementing texts for land law and operationalization of the one-stop-shop for land; • <u>Providing support for the development of the Strategic Environmental and Social Assessment (SESA);</u> • Providing support to structures responsible for quality standards and norms as well as the fortification of foods with micronutrients; • Providing technical assistance for the implementation of measures to promote private investments in agro-parks (instruments, incentives, etc.); • Holding of APZ investment promotion fora.

Components	Sub-components	Activities
B. Component B, Development of Infrastructure to Support Agricultural Transformation	B1. Developing infrastructure for the development of agro-parks in Boké and Kankan	<ul style="list-style-type: none"> Responsible for site development works and VRD; construction: (i) administrative and residential block; (ii) block of services (training centre, conference centre, laboratories, etc.); (iii) socio-collective infrastructure block (school, health centre, guest house, etc.); LV and MV power line and telecommunications fibre feed work; assistance in setting up a business incubator.
	B2. Aggregation infrastructure and access to agricultural inputs and services,	<ul style="list-style-type: none"> Establishing basic infrastructure in 14 central villages; Implementing rehabilitation works on the main (115 km) and secondary (65 km) track including related works.
	B3. Supporting infrastructure for agricultural production	<ul style="list-style-type: none"> hydraulic works (small water reservoirs); agricultural development works on schemes to be developed (around 20,000 ha).
C. Support to Key Actors in Priority Agricultural Sectors	C1. Building the capacity of agricultural producers	<ul style="list-style-type: none"> Organising sectors (fonio, rice, corn, soybeans, sesame, cashew, oil palm, small ruminants and broiler chicken); Providing technical and managerial capacity building for 14 village CTAs; Implementing an information system for use by OPAs (e-farmers, e-aggregation, e-inputs, e-services, etc.); Strengthening access to financing for OPAs (guarantee funds).
	C2. Building the capacity of local communities	<ul style="list-style-type: none"> Restoring and protecting natural habitats Producing 6,500 improved stoves (fight against deforestation); Promoting renewable and alternative energy (biogas, solar power plant, etc.); Popularising irrigation technologies powered by solar pumps; Promoting agricultural practices resilient to climate change; Promoting agro-forestry practices/sustainable forest management;

Components	Sub-components	Activities
		<ul style="list-style-type: none"> Facilitating access to civil status documents (especially for women and young people); Building the capacity of women and young people in nutrition education and transformation; Supporting the implementation of priority micro-projects for pilot ACTs.
	C3. Strengthening central and decentralised services	<ul style="list-style-type: none"> <u>Implementation of safeguard measures:</u> (i) development of a Manual of Good Environmental Practices; (ii) execution of the ESMP monitoring plan and the management of pesticides; (iii) environmental and social baseline situation. <u>Monitoring the implementation of the environmental and social management plan-ESMP</u>
D. Programme Coordination and Management	(i) Coordination of project activities; (ii) administrative, accounting and financial management; (iii) procurement of goods, works and services; (iv) production of a communication plan; and (v) monitoring-evaluation of project implementation.	

In view of the contents of the table, the activities of **Component A, Support for Governance and Incentives for the Management of Agro-Parks**, those of **Component C, Support for Key Stakeholders in Priority Agricultural Sectors**; and **D, Programme Coordination and Management**, by their nature will not result in any significant adverse impact on the environment.

On the other hand, the activities of **Component B, Development of Infrastructure to Support Agricultural Transformation and its sub-components** (B1, *Developing infrastructure for the servicing of agro-parks*, B2, *Aggregation infrastructure and access to inputs and agricultural services*, B3, *Infrastructure to support agricultural production*) are those which are most likely to generate negative outcomes and impacts on the environment.

The following table gives an overall assessment of the programme component impacts.

Table 19: Overall Assessment of Programme Activities

Components	Sub-components	Environmental Impacts		Socio-economic Impacts	
		Positive	Negative	Positive	Negative
A. Support for Governance and Incentives for the Management of Agro-Parks, and its sub-components	<i>A1. Establishing a APZ Management Governance System</i>	Major	NS (Non-significant)	Major	NS
	<i>A2- Supporting the Governance of APZ Management</i>	Major	NS	Major	NS
B. Developing Infrastructure to Support Agricultural	<i>B1. Developing infrastructure for the development of agro-parks in Boké and Kankan</i>	Major	Major	Major	Major

Components	Sub-components	Environmental Impacts		Socio-economic Impacts	
		Positive	Negative	Positive	Negative
Transformation and its Components	<i>B2. Aggregation infrastructure and access to agricultural inputs and services</i>	Major	Major	Major	Major
	<i>B3 Supporting infrastructure for agricultural production</i>	Major	Major	Major	Major
C. Support to Key Actors in Priority Agricultural Sectors and its Components	<i>C1. Building the capacity of agricultural producers;</i>	Major	Moderate	Major	Minor
	<i>C2. Building the capacity of local communities</i>	Major	Moderate	Major	Minor
	<i>C3. Strengthening central and decentralised services</i>	Major	Moderate	Major	Minor

Overall, therefore, the activities of the various components will have major positive impacts. However, certain activities of component B are likely to generate significant negative impacts on the environment, especially those relating to site development works and **VRD**, supply works on the LV and MV power line, the construction of solar power plants, hydro-agricultural installations on the plains and the lowlands, basic infrastructure, and track rehabilitation works. Apart from the construction of solar power plants, other additional GCF activities will have major positive impacts on the environment, and very few negative impacts.

The activities of Component C, focusing on building the capacities of agricultural producers, local communities and central and decentralized services, will however only have positive outcomes and impacts. This Component C, as well as GCF activities, will enhance the positive impacts and anticipate the minimization and mitigation of certain potential negative impacts of the programme. These are mainly: the programme to restore and protect the natural habitat around the facilities and other infrastructure, the manufacture of improved stoves (fight against deforestation), the facilitation of access to civil status documents (especially for women and young people), building the capacity of women and youths in processing and nutrition education, providing support for the implementation of income-generating activities (IGA), promoting renewable energies, the resilient agriculture extension programme, agroforestry, etc.

This Component C has also anticipated the implementation of certain safeguard measures by recommending and planning support for: (i) the development of a Manual of Good Environmental Practices; (ii) the implementation of the ESMP monitoring plan and the management of pesticides; (iii) the development of an environmental and social benchmark; (iv) monitoring the implementation of the environmental and social management plan (ESMP), etc.

7.3. Analysis and Assessment of the Project's Positive Impacts

With the implementation of The SCPZ activities, considerable positive environmental and social outcomes and impacts are expected at the national, regional and local levels.

The SCPZ will contribute significantly to the achievement of objectives of the country's economic and social development policies, especially those aimed at achieving emergence, food self-sufficiency, the fight against malnutrition, the fight against poverty, etc. This

transformational programme could also serve as an engine of development for the targeted regions.

From an environmental standpoint, the programme will contribute to better water and land management, through good control and the implementation of developments that meet the required standards, with irrigation and drainage networks that will have less impact on ecosystems. GCF activities will help preserve ecosystems and strengthen their resilience to climate change outcomes.

At the economic and social level, the programme will contribute significantly to the improvement of the living conditions of the target populations through the establishment of development poles; the development of related economic activities; the opening up of production areas and the improvement of access to socio-economic facilities; diversification of agricultural production systems, water control and technical routes; the improvement of production systems; increasing agricultural production and reducing post-harvest losses; increased income; building the capacity of beneficiaries; marketing; reducing unemployment and youth exodus by creating local job opportunities; improving women's conditions and empowering them; improving governance; etc.

Setting up units for processing, preserving and storing products will create jobs and added value, and increase producers' incomes. The recruitment of youths as workers will be a possibility to create jobs and improve the population's income. This will also lead to the development of petty trade and related activities by women and some youths around these sites.

Rural roads in good condition will facilitate the transportation of factors of production and the transportation of produce to markets and processing and consumption centres. Positive induced outcomes are expected on the development of other economic activities such as crafts, etc. The HIMO (labour-intensive works) approach for track maintenance works will, in particular, create jobs and provide additional sources of income to the populations of the affected areas. The tracks will also help to expand access to health, education, extension, administrative services, etc.

The programme target areas have enormous potential in renewable and alternative energy sources which offer the advantage of using resources available in large quantities (plant waste, household waste, manure for biogas, solar, etc.) and a low level of carbon emissions.

The popularisation of improved stoves will help reduce the use of fuelwood and thus alleviate the strong pressure on plant resources. Solar power plants and improved stoves make it possible to generate fuel savings and thus achieve gains in CO₂ emissions.

The renewable energy production system, especially the solar system, is adapted to the scale of different energy needs, ranging from solar lanterns for domestic use, to supplying micro- and mini-grids, to lightening work. women, to product processing, to supplying social facilities (health posts, schools, etc.), and to other services.

Resilient agriculture will improve productivity by optimising the use of natural processes, reducing the use of inorganic inputs, reducing greenhouse gas emissions from the agricultural sector through the application of appropriate practices (composting, mulching; intercropping of nitrogen-fixing plants, practice of fallowing to improve soil structure and fertility, etc.).

In addition to providing a source of income, agroforestry, another integrated system, can also improve soil quality by fixing nitrogen, drawing nutrients from deep in the soil and creating micro-climates, etc.

Capacity building programmes for producers, local communities and central and decentralised services will help to sustainably improve the population's living conditions and the management of natural resources. By targeting sustainable and more efficient practices for the use of land, water and inputs, the programme will have positive impacts on the environment, on mitigating the effects of climate change and on populations.

In addition to the positive impacts and outcomes on the country's economic and social development policies at the regional and local levels, planned programme activities will also have considerable positive effects such as diversification, improved production and income, mastery of technical routes, improvement of conditions and the population's living conditions, capacity building of beneficiaries, reducing unemployment and youth exodus by creating local job opportunities, improving the nutritional situation, opening up and improving the level of access to social services and socio-economic infrastructure and equipment, and improving production and distribution circuits.

Regarding gender and women's empowerment, it emerged from the consultations that most agricultural producers are women. They are also strongly involved in community activities and in the management of natural resources and income-generating activities (market gardening, small breeding, harvesting, trade, crafts, product processing, etc.). However, they carry out these activities under rather precarious conditions.

The extensive, inefficient and unproductive production systems currently practised do not guarantee them sustainable incomes that enable them to face the economic and social responsibilities to which they are subjected. Women devote a significant portion of their income to the family, especially to children (education and health). They still have poor technical and managerial capacities, weak economic power, poor representation within decision-making bodies, etc. They face enormous difficulties in accessing land, credit and factors of production, according to the women producers met. According to some traditions still in force, women cannot own land and cannot inherit it from their husbands or relatives.

For programme activities to have major positive impacts on gender and on the empowerment of women, it was recommended to ensure that women as well as men enjoy all the benefits of the programme. They should be properly be represented within the bodies responsible for steering the programme, and benefit from a specific programme in line with their expectations which will be formulated in conjunction with those concerned.

To this end, a specific component: ***“Building the capacity of women and youths on nutrition education and transformation” has been planned.*** The consultations proposed the formulation of a more comprehensive programme on gender and the empowerment of women, which would take into consideration all of their concerns. The implementation of these recommendations by the SCPZ will significantly contribute to the improvement of women's living conditions and environment.

The following table summarizes the main potential positive impacts of the programme

Table 20: Potential Positive Impacts of the Programme

Sectors	Positive impacts
Economic and social development policies	Contribution to achieving food self-sufficiency, the fight against malnutrition, the fight against poverty, etc. Establishment of development poles/Regional and local growth engine.
Environment and natural resource management Climate change	Contribution to better management of water and land; realisation of facilities that meet standards; <u>better management of pesticides;</u> Contribution to the restoration and preservation of natural resources; gains in CO2 emissions (energy saving through the <u>popularisation of improved stoves, promotion of renewable energies, etc.</u>). Application of good practices, <u>improvement of production systems, promotion of agroecology, restoration and protection of natural habitats, etc.</u>
Local development	Improving the living conditions of the populations. Development of related economic activities. Opening-up of production areas and improving the level of access to socio-economic facilities. Diversification of agricultural production systems and increase in production; improvement of production and distribution chains (reduction of post-harvest losses, capacity building of beneficiaries, marketing, etc.). Development of income-generating activities. Reduction of unemployment and the exodus of young people by creating local employment opportunities. Improving women's conditions and empowering them. Improving governance.

The following table presents the main outcomes and positive impacts likely to be generated by the main programme activities.

Table 21: Summary of the Key Positive Outcomes and Impacts of Key Project Activities

Activities	Positive impacts
Improvement of value chains	<ul style="list-style-type: none"> • Improvement of production systems • Diversification of activities. • Creation of income and jobs. • Improvement of the living conditions of young people and women. • Improvement of the living environment.
Hydro-agricultural developments	<ul style="list-style-type: none"> • Improved resource management (land and water). • Development of resources and space; • Good water control thanks to adapted developments (to standards); • Better organisation of space; • Improvement and diversification of production systems. • Increase in developed areas and production. • Mastery of technical itineraries. • Creation of income and jobs. • Improvement of the living conditions of women • Reduced risk of flooding.
Resilient agriculture / Agroforestry	<ul style="list-style-type: none"> • Improvement of productivity; • Reduction of pollution and nuisances; • Reduction of greenhouse gas emissions; • Improved carbon sequestration; • Increase in production and income • Improved soil quality.
Processing unit	<ul style="list-style-type: none"> • Development of production • Creation of added value • Increase in income • Development of income-generating activities • Reduction of unemployment and youth exodus. • Creation of local employment opportunities. • Improvement of the living conditions of the populations and the nutritional situation.

Activities	Positive impacts
Storage warehouses	<ul style="list-style-type: none"> • Improved conservation of products and inputs. • Reduction of crop losses. • Increase in income.
Production tracks	<ul style="list-style-type: none"> • ease of transport of products; • easy access to markets; • opening up and improving the level of access to social services and socio-economic infrastructure and equipment; • local development.
Renewable energies	<ul style="list-style-type: none"> • Preservation of ecosystems. • Expansion of the range of applications in rural areas (lighting, cooking, refrigeration of vaccines, telephone recharging, telecommunications relay, etc.). • Lightening the workload and empowering women; • Product transformation; • Improvement of the living environment (public lighting, security, etc.). • Improving the quality of socioeconomic services and infrastructure (market, health centres, schools, small irrigation, etc.). • Development of micro and mini-grids, small and medium-sized enterprises, and various other services. • Reduction of greenhouse gas emissions.

7.3.1 Potential Impacts of the Programme on Climate Change

Guinea remains a very low emitting country in terms of GHG emissions; however, climate change occurs in the area through an increase in weather events (floods, drought, heat waves, etc.). The following table summarises climate change impact in Guinea.

Table22: Climate Change Impact in Guinea

Réduction significative des débits des cours d'eau	
<ul style="list-style-type: none"> Milo (Kankan) - 43,72 % Niger (Kouroussa) - 29,91 % Konkouré (pont Télémélé) - 29,89 % 	<ul style="list-style-type: none"> Diani (bac) - 20,03 %
Baisse des rendements agricoles <ul style="list-style-type: none"> Baisse des disponibilités alimentaires en céréales. Variations de la production et la productivité agricoles. 	Elévation du niveau de la mer <ul style="list-style-type: none"> Réduction de la superficie de la mangrove en front de mer, mais possibilité d'amélioration de la mangrove à l'intérieur des terres Submersion des terres et déplacements de population en zone côtière
Réduction des superficies des pâturages et qualité des fourrages	Salinisation des rizières d'arrière mangrove
Modification de la répartition des formations végétales à l'horizon 2025	
<ul style="list-style-type: none"> les zones Nord-Est et Nord-Ouest verront la savane arborée se transformer en une savane sèche suite à une réduction de 200 mm des pluies; la végétation dense disparaîtra dans la région du Foutah et dans les préfectures de Kérouané, Beyla, Lola et N'Zérékoré. Elle cédera progressivement la place à la savane arborée; 	<ul style="list-style-type: none"> les zones arides progresseront avec une réduction de certaines espèces forestières moins résistantes à la sécheresse. Cela réduira considérablement les potentialités forestières du pays. Aussi, la mangrove subira une réduction notable dans les préfectures de Forécariah, Boffa et Boké.

Source: *INDC Guinea Climate Strategy –October 2015*

On the other hand, planned programme activities do not present a significant climatic risk. They will, in particular, help to strengthen the resilience of ecosystems and communities in the face of climate change, through water control, improvement of production systems, reduction of the practice of extensive slash-and-burn systems, the application of good agricultural practices, reforestation and energy saving actions (improved stoves), the renewable energy programme, etc.

The SCPZ will implement hydraulic structures allowing for optimal water management, the development of irrigation schemes to make up the rainfall deficit and promote the dissemination and popularisation of high yield and short-cycle crops, as well as drought-resistant forest and agro-forestry species, etc. The renewable energy and hydro-agricultural development programme will reduce CO₂ emissions and accumulate carbon in the soil.

7.4. Analysis and Assessment of the Potential Negative Impacts of the Programme

With regard to activities related to the hosting environments, the most significant adverse environmental and social impacts will therefore be consecutive:

- to the rehabilitation of tracks, the development of infrastructure, the building of hydraulic works, agricultural development works and the building of a solar power plant.
- in urban areas/human settlements:** development of infrastructure for the development of agro-parks in Boké and Kankan, site development works, building of administrative and residential blocks; socio-collective infrastructure block, works to carry the LV and MV power line, building of solar power plants, infrastructure and equipment.

All these civil/rural engineering activities will generate potential adverse impacts on the biophysical and human environments.

Table 13: Analysis and evaluation of the effects and potential adverse impacts of the project on different components

Component	Potential adverse effects and impacts
Air Quality	<p>During the works, dust, smoke and gas emissions generated by vehicles and machinery will locally affect air quality.</p> <p>However, given the nature of the works and the site environment, the impact on air quality will be temporary and of minor importance.</p>
Soil	<p>Some excavation works may result in a change of soil texture and structure that could impact run-off if certain measures are not taken. There are also risks of soil pollution that may result from poor management of construction site wastes (solid and liquid).</p> <p>The application of good and recommended measures by the FESMP and the ESMP that will be carried out during the implementation will help mitigate these effects and impacts.</p>
Water Resources	<p>The project's area of influence has a large hydrographic network which could be affected if good practice measures are not rigorously applied during project implementation in order to eliminate this risk.</p>
Fauna and Flora	<p>Despite the strong pressure on the natural environment, the project's area of influence still has significant natural resources and potential and a rich bio-diversity.</p> <p>The choice of appropriate sites (especially outside protected areas and sensitive zones), the application of good practices and the measures recommended by the FESMP and the ESMP will help mitigate these effects and impacts on these components.</p>
Human Environment	<p>The targeted areas are very sparsely populated, most of the works will be implemented outside residential areas and may not cause significant disruption to operations, nor significant loss of assets or access if appropriate site selection is made. However, they could generate dust and fumes which could be sources of inconvenience and nuisance (eye diseases, coughs, respiratory problems, etc.) or accidents. They could also generate waste which may constitute a health hazard.</p> <p>Very strict clauses will be inserted in the BDs to take into consideration and minimize these various risks and safety measures will be rigorously applied.</p> <p>Hydro-agricultural developments are also a source of proliferation of water-borne diseases (bilharziasis, malaria, etc.). The application of good practices and the measures recommended by the FESMP and the ESMP which will be developed will help mitigate these effects and impacts. During the works, it is possible to discover archaeological remains and/or physical cultural properties. In case of discovery, it will be the responsibility of the contractor to immediately notify the relevant services of the Ministry of Culture, and the works will be oriented in accordance with their directives.</p> <p>Although the risk of physical displacement remains low, the risk of destruction of property and loss of economic income sources exists. Depending on the extent and nature of the works, a procedure of expropriation and compensation will be initiated, through the development of resettlement plans.</p>

7.4.1 Negative Impacts Common to Civil/Rural Works

In the works phase, the impacts common to all these developments (hydro-agricultural, tracks, construction of administrative buildings and housing, socio-economic equipment, solar power plant, etc.), are inherent to different risks.

Details of common potential negative risks and impacts are:

- *Loss of vegetation:* the release of the right-of-way for development and infrastructure could cause the felling of trees present on the sites and lead to a reduction in local vegetation.
- *Loss of pasture:* in rural areas, the release of rights-of-way could also lead to loss of pasture for livestock
- *Risks of social tensions with the project in the event of local unemployment:* the non-use of local labour during the works could cause frustration and generate conflicts in the target areas.
- *Risk of destruction of property and loss of sources of economic income:* it is possible that the sites planned for development and investment belong to communities or individuals or are occupied for socio-economic activities. In such cases, an expropriation and compensation procedure will be initiated. These aspects should be taken into consideration, even if the risk of physical displacement remains low.
- *Pollution and nuisances:* quantities of waste may be generated during the works. This waste can threaten the hygiene and safety of the biophysical environment. In the human environment, vehicles and other construction equipment will generate annoyances, nuisances for the neighbourhood, disrupt traffic, or cause accidents.
- *Risks of accidents and occupational diseases:* during the works, accidents and occupational diseases are also feared if occupational safety measures are not taken.

7.4.2 Assessment of Common Potential Adverse Impacts on Biophysical and Human Environments

This assessment covers the following:

a) Air quality

During the works, emissions of dust, fumes and gas (CO_x, NO_x, SO_x, VOC, C, H₂S, and HC) generated by vehicles and machinery will locally affect air quality. Air pollution can cause nuisance to the natural environment when dust falls on leaves, thus disrupting photosynthesis in some species.

b) Soils

During the works, the movement of construction equipment and vehicles can cause soil compaction, leading to a modification of their structure. Soils are also at risk of being soiled by the discharge of liquid waste (including used waste oil) and solid waste (rubble, various wastes, etc.) from the site.

In borrow pits, the soils will be impacted by excavations. If the latter are not rehabilitated after exploitation, they will during the rainy seasons become ponds where larvae of harmful insects (mosquitoes in particular) breed. These areas could also be sources of erosion.

c) Surface and groundwater

The construction of poorly dimensioned structures can lead to a modification of natural water drainage which could cause the disruption of the hydrological regime. Waste from construction sites could also contaminate groundwater through infiltration if certain measures are not taken.

d) Ecosystems

Agro-silvo-pastoral spaces located in the right-of-way and in borrow pits are likely to be affected by the works. During the works, noise from machines could disturb the peace of wild animals. During the operation phase, pressure on resources (water and soil) could intensify, creating impacts on biophysical environments.

e) Public health and safety

The works will generate dust and fumes locally which can be sources of respiratory diseases and various nuisances (coughs, respiratory problems, eye problems, etc.), especially among site personnel and resident populations. The presence of workers in the works areas can also contribute to the proliferation of sexually transmitted diseases.

There are also risks of traffic accidents due to speeding, especially when crossing towns and risks of fire in the works sites due to the presence of flammable products.

f) Employment and the local economy

Failure to recruit local labour could be a source of conflict. The works to be carried out constitute an employment opportunity for the local populations. Although the jobs might be temporary, they could have sure economic repercussions on the standard of living of households, on the local economy and also avoid social conflicts. The presence of the site and staff could promote the development of small businesses, house rentals, domestic jobs and catering in the area.

g) Cultural, historical and archaeological heritage

During excavation works, it is possible to discover archaeological remains and/or physical cultural property. In the event of a discovery, it shall be the responsibility of the contractor to immediately notify the Ministry of Culture and the works will be oriented in accordance with their directives.

7.4.3 Potential Adverse Impacts of Hydraulic Structures and Hydro-agricultural Facilities

In addition to the risks of works-related pollution and nuisance, water control techniques (diversion of watercourses, water reservoirs, etc.) can lead to the following specific negative impacts: loss of natural areas/wetlands and biodiversity; disturbance of the quality of habitats and the migration of aquatic fauna; risks of proliferation of invasive aquatic species; modification of the hydraulic regime; deterioration of water quality; proliferation of sources of water-borne disease vectors (malaria, bilharzia, schistosomiasis, etc.).

Irrigation activities may also cause disruption of the ecological environment with the appearance of new species or mutations of existing species due to the abundance of water and, possibly, organic matter linked to the presence of new activities; the disruption of fragile ecosystems (wetlands) that can lead to a decline in bio-diversity; destruction of nurseries for certain species of fish and of the roosts of certain reptiles, amphibians, insects, etc.

The development of irrigated cultivation can lead to intense and uncontrolled use of fertilizers and pesticides, the use of which can harm human health and lead to water and soil pollution. Poorly dimensioned works during the operation phase could lead to a risk of flooding.

Economically, these structures could be obstacles to the progression of fishing activities along the rivers. These developments can also lead to the reduction of grazing areas or limit access to water points for livestock. This can be a source of conflict between herders and farmers.

Also, during the operational phase, the poor application by producers of certain varieties of seeds adopted at the expense of local varieties can lead to the abandonment of old varieties and a reduction in plant bio-diversity. The popularisation of improved varieties can lead to the intense and uncontrolled use of fertilisers and pesticides, the use of which can harm human health and lead to water and soil pollution.

Protective structures (dykes) could disrupt the activities of neighbouring populations and limit access, in terms of movement (especially for livestock and animal-drawn vehicles).

As a reminder, the slaughter, uprooting, mutilation and delimbing of certain fully or partially protected species are formally prohibited, or subject to authorisation by the Water and Forestry Services.

7.4.4 Potential Negative Impacts Linked to the Improvement of Agricultural Production Systems and Value Chains

Improved production systems can also lead to a reduction in the length of fallow periods by providing more opportunities for land development and attracting more producers.

It may also put increased pressure on land that will increase in value and could therefore lead to speculation or revive latent tensions. Numerous conflicts, disputes, tensions of all kinds (between farmers and pastoralists, between farmers, between communities, between local communities; etc.) could be rekindled as a result of land development.

Given the stakes, special attention will be paid to the land issue

A very large majority of producers in the target areas practise extensive slash-and-burn agriculture on small plots with almost no use of chemical inputs. Improving agricultural productivity, when not accompanied by good practices, can lead to the use of pesticides and fertilizers that can cause accidents and human or animal poisoning through their direct use (dusting, spraying), improper storage or indirectly through the reuse of containers. Pesticides and fertilisers are sources of several adverse impacts when their use is not controlled and can therefore lead to the pollution of the groundwater and waterways; contamination of livestock; cases of human intoxication due to poor packaging management, etc.

The heavy use of chemical fertilisers can also cause pollution. They are often a source of water pollution when applied in greater quantities than the crops can absorb or when they are washed away before being absorbed. This overload of nutrients can cause eutrophication of waterways and lead to algal blooms that destroy aquatic flora and fauna.

It emerged from consultations with plant protection (PP) services that the current conditions of use of plant protection products are not satisfactory, characterised by the absence of protective equipment and non-compliance with dosages and product use procedures. The SCPZ has provided for the development of a Manual of Good Environmental Practices which should include the promotion of more productive and profitable practices based on agro-ecology such as the promotion of bio-pesticides. It is also recommended that a capacity building programme on pesticide management be designed and implemented.

Special attention will therefore be paid to pest and pesticide management.

The following table presents a summary and an assessment of the adverse impacts linked to the construction of hydro-agricultural structures and developments.

Table 144 Summary of Negative Impacts, Construction of Hydro-agricultural Structures and Developments

Phase	Potential Adverse Impacts
Works	Physical and biophysical environments: <ul style="list-style-type: none"> • release of dust, gas, waste, etc.; • deforestation and risk of destruction of sensitive habitat (loss of biodiversity); • soil compaction by the passage of construction machinery and vehicles • destruction of the soil in borrow pits and quarries; • risks of soil and water pollution by liquid and solid waste; • risk of wetlands drying out.
	Human environments: <ul style="list-style-type: none"> • noise and nuisance (dust, gas, waste etc.); • risk of accidents; • possible losses of assets (agricultural land) or access (natural resources and pastures); • possible conflicts relating to the right and use of land (cohabitation between different rights, claims of membership, etc.); • risks of crop disturbance during works; • possible risks of destruction and damage to archaeological sites; • risks of conflicts related to the non-use of local labour during the works.
Operation	Physical and bio-physical environments <ul style="list-style-type: none"> • risks of soil and water pollution by agricultural input residues; • risk of erosion of areas to the right of the works; • risk of modification of soil drainage; • risk of silting and sedimentation; • increased pressure on resources (water and soil); • risk of soil impoverishment by overexploitation and misuse of fertilisers; • risk of soil erosion and salinization; • risk of disruption of the hydrological cycle; • risk of degradation of water quality (pollution of groundwater, watercourse, body of water); • increased competition on the use of resources; • risk of premature water exhaustion; • risk of reduced water flow downstream;

Phase	Potential Adverse Impacts
	<ul style="list-style-type: none"> • risk of destruction of fish and aquatic fauna; • risk of proliferation of aquatic plants.
	<p>Human environments:</p> <ul style="list-style-type: none"> • risks of poisoning and/or contamination during crop treatments and the use of inputs (contamination of livestock; intoxication of populations); • risks of conflicts between users; • development of water-borne diseases (malaria, diarrhoeal diseases, etc.); • risk of land speculation; • increased competition on the use of resources; • risk of expropriation of land developed by women.

7.4.5 Potential Adverse Impacts of Building Tracks

The building of tracks can lead to negative outcomes and impacts such as the destruction of plant cover; soil erosion; disruption of stormwater drainage; loss of property, business and sources of income; pollution and nuisances due to works (solid waste and excavated material, etc.). It can also impact biodiversity in the right-of-way and on material borrow sites. The works can also encroach on agro-sylvo-pastoral spaces (for new routes). They can generate the risk of accidents and nuisances (waste, dust and noise) during the operational phase.

Table 25: Summary of Potential Adverse Impacts of Building Tracks

Phase	Potential Adverse Impacts
	<p>Impacts on the Biophysical Environment</p> <ul style="list-style-type: none"> • tree felling • risk of destruction of wildlife habitats • deforestation and soil erosion with the opening and operation of unrehabilitated quarries • risk of obstruction of run-off paths <p>Impacts on the Human Environment and Socio-economic Activities</p>
Works	<ul style="list-style-type: none"> • Risk of damage to property • Air pollution by dust and vehicle exhaust • Environmental pollution by waste from construction sites and life camps • Noise from construction equipment • Risk of transmission of infectious diseases (STIs - HIV/AIDS, etc.) • Risk of accidents among workers, inhabitants of villages crossed or on animals • Risk of degradation of agricultural land • Risk of encroachment on agro-silvo-pastoral spaces
Operation	Risk of accidents, nuisances (dust, noise)

7.4.6 Potential Adverse Impacts due to Socio-economic Infrastructure Development

The rehabilitation or construction works of socio-economic infrastructure are increasingly mastered and do not generally have significant negative impacts on the environment. The risks of ecosystem destruction are very low if the choice of site is made appropriately. The sites are generally located in residential areas. Borrow pits will be slightly affected given the limited quantities that will be required for the works. On the other hand, the operational phase can be a source of waste production. Infrastructure management can also generate conflicts, if their status and management methods are not clearly defined.

7.4.7 Potential Adverse Impact of Electrical Installations (LV/MV Lines)

Irrespective of whether it is a LV/MV line, given the electric and magnetic fields produced by the electric lines, the risk of accident and in application of the precautionary principle, a safety corridor must be free from any dwellings, and in rural areas, an optional corridor will constitute a zone of total exclusion from any activity, including agricultural production. The other impacts of these installations relate to the release of the right-of-way and deforestation carried out along the line. In addition to the loss of vegetation, once completed, the line becomes the property of the Guinean state through the expropriation mechanism; the local populations lose all rights and power to intervene in the right-of-way of the lines. Consequently, compensation measures will be allocated to the people concerned in proportion to the impacts suffered.

Relevant technical criteria must be taken into consideration in order to identify a route with less impact, taking care as much as possible to keep away from human settlements, classified forests, national parks, nature reserves, cultural sites, sacred forests, etc.

7.4.8 Potential Adverse Impact Due to Solar Power Plant Construction

Solar photovoltaic systems are considered one of the most environmentally-friendly energy options. The impacts related to the installation of a solar power station are often limited and concern the use of land for the establishment of the solar field (loss of land depending on the size of the power plant) and the installation of related equipment which could lead to the pruning of a few trees or shrubs. During construction, the risk of construction site accidents may arise. During operation, the potential impacts are linked, in particular, to the management of waste generated by used batteries. There are also risks of theft and damage to solar panels.

Table 15 Summary of Potential Adverse Impacts of Solar Power Plant

Phase	Adverse Impacts
Construction/installation	Risk of pollution linked to waste Loss of land or property located on the site Pruning of trees and other plantations located on the route Risk of accidents during works
Operation	Risk of soil pollution and accidents especially among children in the event of poor packaging or uncontrolled discharge of used batteries Risks of theft and other damage to solar panels

7.5. Potential Cumulative Outcomes and Impacts of Programme Activities

While most of the activities to be implemented may have insignificant negative outcomes if considered individually, the combination of several negative outcomes on both the bio-physical and socio-economic environment can, in the long run, lead to major negative outcomes due to their accumulation. Cumulative impacts and outcomes could also result from the combination of programme implementation with other existing practices, projects and programmes in the targeted areas.

The consultations revealed that there was no ongoing large-scale project in the area and that the establishment of operational consultation frameworks, harmonisation and coordination of interventions make it possible to reduce and mitigate these impacts and outcomes; they also makes it possible to guarantee a good distribution of projects and stakeholders in the space.

The involvement of all programme stakeholders, especially, administrative authorities, local communities, traditional structures, technical services and the populations concerned in the identification and implementation of activities also makes it possible to anticipate the cumulative outcomes and risks associated with the implementation of projects and programs occurring in the same area.

It should also be noted that Guinea's technical and financial partners have set up a consultation framework to coordinate their actions. This consultation framework makes it possible to take advantage of lessons learned that can inspire best practices and improve the performance of various projects. It also makes it possible to identify possible synergies between projects in order to avoid duplication of efforts.

With regard to the synergy effects, the general improvement in the living conditions of the populations due to programme activities could naturally lead to a change in behaviour, including an increase and diversification of demand and needs and increased pressure on natural resources. The following table outlines some synergy effects that could result from the programme's positive outcomes.

Table 27 Analysis of the Potential Synergy Effects of Main Programme Activities

Challenges	Scenario 5 to 10 years
Developments with water control	Additional pressure on natural resources Risk of lifestyle change with improved living conditions Risks of frustrations and conflicts for access to programme resources Risk of aggravation of conflicts over the use of land and water resources Risk of aggravation of conflicts between farmers and herders Risk of water-borne diseases developing around water points Risk of increased use of pesticides Risk of limiting access for women and young people to developed land
Avenues	Increased poaching and increased exploitation of natural resources Versus the tracks will also allow for the strengthening of the means of surveillance and the fight against poaching and illegal deforestation by State services (water, forests and parks)

Challenges	Scenario 5 to 10 years
Installation of agro-industrial zones	<p>General improvement of the living conditions of the populations;</p> <p>Poverty reduction which could lead to a change in behaviour;</p> <p>Population increase, development of human settlements and arrival of migrants; and</p> <p>Diversification of demand and needs, increased pressure on natural resources and basic social services.</p>

VIII. MEASURES TO OPTIMIZE AND MITIGATE SCPZ RISKS AND POTENTIAL IMPACTS

8.1. Optimisation and Enhancement Measures of the Positive Impacts and Complementary Initiatives

Various supporting and enhancement measures had already been provided for in the programme and others had been formulated during the consultations.

Indeed, **Components A, Governance Support, and C, Stakeholder Support**, have provided for various activities that constitute a series of measures making it possible to enhance the positive impacts and mitigate the potential adverse impacts of the programme include: (i) the Support to the preparation of land law implementing texts and operationalisation of the single land window component; (ii) the programme to build the capacity of agricultural producers, local communities and central and decentralised services; (iii) the programme to restore and protect the natural habitat around development and other infrastructure; (iii) the production of 6,500 improved stoves (combating deforestation); (iv) building the capacity of women and youths in processing and nutritional education; (v) support for the implementation of income-generating activities (IGAs); and (vi) the preparation of a Manual of Good Environmental Practices, etc.

Among these measures are the additional CVF activities on renewable energy and the popularisation of resilient agricultural practices which will have major positive impacts.

Other recommendations and enhancement measures were also made during consultations with programme stakeholders. They relate to: (i) the establishment of functional consultation frameworks and an appropriate conflict and dispute management mechanism, involving all stakeholders (administrative authorities, local elected officials, traditional chiefs, technical services, grassroots communities, farmers and other users); (ii) supporting the programme's natural resources regeneration (reforestation) and gender and women's empowerment component; (iii) building the capacity of producers in the use of phytosanitary products (pesticide management); (iv) formulating and implementing an appropriate information and awareness programme to facilitate the programme's acceptance, especially regarding land tenure issues; (v) providing technical support and enhancing collaboration between the programme and administrative authorities, the services responsible for natural resources management and neighbouring communities; (vi) applying good practices (quality of works; good agricultural practices, works maintenance, etc.); and (vii) regularly monitoring to assess hydrological disturbances and erosion problems, etc.).

8.2. Mitigation Measures of Potential Adverse Impacts of Sub-projects

At this stage, the proposed measures are indicative and will be further refined during the implementation of the sub-projects, once the sites are known and the sub-projects are sized during the ODA studies.

8.2.1. Mitigation measures of potential adverse impacts of hydro-agricultural developments

The following table presents the mitigation measures on agricultural developments.

Table 16: Mitigation Measures of Potential Adverse Impacts of Hydro-agricultural Developments

Potential adverse impacts	Mitigation Measures
Construction phase	
Deforestation and destruction of natural habitats	Environmental assessment Compensatory Reforestation and Reclamation
Loss of assets or access to resources	Implementation of resettlement plans and compensation of losses in accordance with planned provisions
Litigation on the site	Collaborative site selection
Construction site waste and nuisances	Compliance with the clauses inserted in the BDs and security measures Application of Good Practices
Non-use of local labour during the works	Priority use of local labour Compliance with the clauses inserted in the BDs
Dust, noise, pollution by construction site waste, health and safety problems related to the work Risk of accidents	Safety measures, protective equipment Compliance with health and safety measures Waste collection and disposal.
Operational phase	
Conflicts between breeders and farmers	Concertation between breeders and farmers Delimitation of routes and pastures Sensitization of the stakeholders Protection of watering points
Increase in water-related diseases	Waterborne disease control measures Raising awareness of the population on malaria prevention measures (distribution of impregnated mosquito nets) Raising public awareness of the risks of using the facilities for bathing or laundry purposes Treatment of water sources

Potential adverse impacts	Mitigation Measures
Competition in the use of water	Concertation between stakeholders
Premature siltation of water reservoirs	<p>Encourage the beneficiary populations to adopt good farming practices that can limit soil erosion.</p> <p>Apply good agricultural practices (optimisation of inputs, respect of technical itineraries, promote the implementation of agro-environmental or agro-ecological infrastructures, etc.).</p> <p>Develop farming practices that respect the environment.</p> <p>Carry out works to check erosion</p>
Risk of marginalisation of women	<p>Capacity Building</p> <p>Sensitisation</p>

8.2.2. Mitigation Measures for Administrative Blocks and Housing Units

The following table presents the mitigation measures on Administrative Blocks and Housing Units.

Table 17 Mitigation measures - Construction of administrative blocks and housing units

Project Activities	Potential negative impacts	Mitigation Measures
Construction of administrative blocks and housing units	<ul style="list-style-type: none"> Dust, noise, pollution from construction site waste, health and safety problems (accidents) related to building construction works Massive influx of temporary workers; Risks of STI/HIV/AIDS diseases 	<ul style="list-style-type: none"> Judicious choice of sites Awareness and protection of staff Provision and wearing of individual protective equipment (helmets, boots, clothing, gloves, masks, goggles, etc.). Ecological waste management and regular collection and disposal to authorised sites STI/HIV/AIDS awareness raising Raising awareness of the respect of local customs and habits.

8.2.3. Mitigation Measures on Tracks

The following table outlines the mitigation measures on tracks.

Table 18 Mitigation Measures on Tracks

Specific activities phase	Potential adverse impacts	Measures to minimise adverse impacts
Preparation and construction site	Impacts on the bio-physical environment <ul style="list-style-type: none"> - Tree felling - Destruction of wildlife habitat on the new route - Deforestation and soil erosion with the opening and operation of quarries - Obstruction of run-off roads - Non-rehabilitation of laterite quarries 	<ul style="list-style-type: none"> - Application of good practices - Compliance with the clauses inserted in the BDs - Openness and rational career management - Rehabilitation of temporary quarries - Sensitisation of site personnel - Rational waste management - Protection of sensitive areas
	Impacts on the human environment and socio-economic activities <ul style="list-style-type: none"> - Damage or loss of property - Air pollution by dust and gases from the machines - Waste-related environmental pollution by waste from construction sites and life camps - Nuisance by the noise of construction equipment - Transmission of infectious diseases (STIs - HIV/AIDS, etc.) - Accident risks to workers, inhabitants of the villages crossed or animals - Degradation of agricultural land - Encroachment on crop fields 	<ul style="list-style-type: none"> - Application of good practices - Compliance with the clauses inserted in the BDs - Openness and rational career management - Rehabilitation of temporary quarries - Sensitization of site personnel - Rational waste management - Protection of sensitive areas
Operation	<ul style="list-style-type: none"> - Accidents - Dust lifting (through the villages) 	<ul style="list-style-type: none"> - Install road signs and speed bumps when crossing the villages - Planting alignment trees - Raising awareness among local populations

8.2.4. Mitigation Measures on Solar Power Plant

The following table shows the mitigation measures for a solar power plant

Table 19 Mitigation measures on solar power plants

Phase	Adverse Impacts	Mitigation Measures
Construction/ Installation	Loss of land	Judicious and consensual choice of the site Compensation of affected persons
	Deforestation site	Compensatory Reforestation
	Pollution related to construction site waste	Implementation of a waste management plan
Operation	Risk of pollution and accidents in case of uncontrolled discharge of used batteries	Choice of good quality batteries Setting up of a recovery and recycling chain by approved operators Staff training in security and risk management Raising public awareness
	Risks of theft and other deliberate damage to the solar panels	Implementation of a security system Raising public awareness

8.2.5. Mitigation Measures on Socio-economic Infrastructure

The following table presents the mitigation measures on socio-economic infrastructure.

Table 20 Mitigation Measures on Socio-economic Infrastructure

Activities	Potential Impacts	Minimisation measures
Works Phase	Conflicts over choice of sites Defects and poor quality Pollution and nuisance (noise, dust) and accident risks	Information, awareness and involvement of the different stakeholders involved. Respect of clauses inserted in the BDs Application of good practices and rigorous control
Operational phase (commissioning)	Waste Management Conflicts	Organisation and involvement of stakeholders Capacity Building

For health care facilities, it will also be necessary to ensure the development of a medical waste management plan and its effectiveness from the opening of the facility, provide protective containers and equipment to workers, and detailed training on procedures and practices that minimise the risk of exposure to hazardous waste, ensure appropriate treatment of hazardous waste, etc.

8.2.6. Mitigation and Impact Management Measures on Pesticides and Chemicals

The following table presents mitigation measures on pesticide-related impacts.

Table 21: Mitigation and Impact Management Measures on Pesticides and Chemicals

Phase	Determinant	Impacts			Mitigation Measures
		Public Health	Environment	User	
Transport	Ignorance of risk	Contamination	Risk of accidental spillage, Pollution of groundwater and other ecosystems	Inhalation of chemicals: Discomfort and effects in contact with the skin	<ul style="list-style-type: none">• Pesticide management training/sensitisation on all aspects of the pesticide supply chain and emergency responses• Provide personnel with protective equipment and encourage them to wear it• Provide adequate storage equipment, rehabilitate existing sites• Conduct public sensitisation on the use of pesticides and their containers• Training on the management of empty containers for safe disposal• Prohibit high-volume containers to avoid decanting• Decrease the amount of pesticides used by using alternatives
Storage	Lack of a suitable site Lack of training on pesticide management	Accidental contamination Disturbance of nearby populations	Risk of soil and groundwater contamination	Inhalation of chemicals: Discomfort and effects in contact with the skin.	
Handling	Training and Awareness Deficit	Contamination of water sources and productions	Contamination of ecosystems	Vapor inhalation, dermal contact during preparation or decanting	
Elimination of Packaging		Ingestion of products due to the reuse of containers	Intoxication		
Container Management		Containers discarded in nature and contact with water points. Contamination of water points	Human and animal poisoning (fish and other crustaceans), pollution of wells, ponds, aquifers, etc.		

8.2.7. Good Environmental and Social Practices for the Works

The application of certain good practices helps to mitigate and optimise project impacts. These are the following general measures:

- Have the necessary authorisations in accordance with the laws and regulations in force;
- Strictly apply environmental and social clauses;
- Inform and sensitise the neighbouring populations;
- Plan protection measures for protected or rare species;
- Respecting cultural sites, customs and traditions;
- Prioritise the use of local labour;

- Ensure good quality works, by carrying out rigorous controls and choosing appropriate technologies;
- Inform and sensitise the populations before any activity of degradation or loss of goods; and
- Carry out compensatory reforestation in the event of deforestation or tree felling.

IX. FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (FESMP)

Various optimisation measures and good practices are already provided for in the programme and the FESMP has called for additional measures and a framework for the implementation of the environmental and social aspects of the programme.

9.1. Summary of Key FESMP Actions and Responsibilities

The following table summarises the key actions of the ESMP and implementation strategy.

Table 22: Summary of key Measures and Implementation Strategy

Potential Impacts	Mitigation or compensation measures	Responsible	Implementation Strategy	Schedule	Monitoring/Supervision
Land acquisition (active losses and access to resources, etc.)	Consultation with stakeholders Compensations	State Land Services	Community involvement Preparation of a resettlement plan	Pre-possession of land	State • PMU
Loss of vegetation	Strict respect of the boundaries of the areas to be cleared Compensatory reforestation	PMU Firm	Payment of taxes, felling and involvement of forestry services	Works Commencement	<ul style="list-style-type: none"> • ESA/PMU • BGEEE • Communities • CPSE • Forestry Department
Risks of surface and ground water pollution	Collection of oil and other liquid waste for disposal and/or recycling	PMU Firm	<ul style="list-style-type: none"> • Sanitation of the sites of the base construction sites • Water quality monitoring 	During works	<ul style="list-style-type: none"> • ESA/CASL • CPSE • Communities • Technical services concerned • BGEEE
Air pollution due to dust emissions)	PPE (mask) Sensitisation Campaign	PMU Firm	Environmental and social clauses	During construction phases	<ul style="list-style-type: none"> • ESA/PMU • CPSE
Noise pollution due to construction equipment	Wearing of earmuffs and/or earplugs Respect of working hours <ul style="list-style-type: none"> • Regular equipment maintenance 	PMU Firm	Environmental and social clauses	During the works phases	<ul style="list-style-type: none"> • ESA/PMU • CPSE
Nuisances due to waste from the works	Garbage collection and disposal and common waste recycling	PMU Firm	Regular clean-up of works sites Provide waste collection bins and storage areas	Setting up of the construction site	<ul style="list-style-type: none"> • ESA/PMU • Communities • CPSE

Potential Impacts	Mitigation or compensation measures	Responsible	Implementation Strategy	Schedule	Monitoring/Supervision
	<ul style="list-style-type: none"> Hazardous waste management (used oils, paints, electrical waste, etc.) 	PMU Company	Provide selective collection bins Adequate on-site oil change and oil recycling Waste collection and transfer to approved site	Setting up of the site and during all the works period	<ul style="list-style-type: none"> ESA/PMU Communities CPSE
Occupational risks (risk of falls, injuries, accidents, etc.)	<ul style="list-style-type: none"> Develop a security plan Organise information and sensitisation sessions Personal Protective Equipment (PPE) Safety tips 	PMU Company	<ul style="list-style-type: none"> Ensure the safety plan includes: (i) the wearing of helmets and earplugs at all stations where the noise level is likely to exceed 85 dB (A); (ii) the wearing of helmets; (iii) the wearing of safety glasses; (iv) the wearing of safety shoes; (v) the wearing of special aprons, etc., and - Ensure PPE quality 	During the works	<ul style="list-style-type: none"> ESA/PMU CPSE
Impacts due to the opening / operation of quarries	<ul style="list-style-type: none"> Operation of authorised and reclaimed quarries 	PMU Company	<ul style="list-style-type: none"> Operation of existing quarries as much as possible Prior authorisation of mining services 	During the works	<ul style="list-style-type: none"> ESA/PMU CPSE Communities Department of Mines BGEEE
Project Affected Persons	<ul style="list-style-type: none"> Compensation 	PMU	RAP development Payment of all compensations and supporting measures	Before works commencement	<ul style="list-style-type: none"> State ESA/PMU Communities CPSE BGEEE
Social risks in case of local unemployment	<ul style="list-style-type: none"> Employment of the local workforce as a priority The requirement should be included in this requirement in work contracts with the company 	PMU Company	<ul style="list-style-type: none"> Involving communities and grassroots organisations in the process of filling unskilled jobs 	At the start of works	ESA/PMU Communities CPSE
Disruption of pastoral activities	<ul style="list-style-type: none"> Provide passageways for access to water points and cattle routes 	PMU	<ul style="list-style-type: none"> Involve communities and breeders in the development of corridors 	During the works	ESA/PMU Communities CPSE Breeders Association
Pollution of water and soil through discharges	<ul style="list-style-type: none"> Drainage of waste water Rational use of agricultural inputs 	PMU	<ul style="list-style-type: none"> Connect drainage channels Conduct analysis of water samples (Protocol with laboratories) 		ESA/PMU Communities CPSE

Potential Impacts	Mitigation or compensation measures	Responsible	Implementation Strategy	Schedule	Monitoring/Supervision
Proliferation of water-borne diseases, STI/HIV/AIDS	<ul style="list-style-type: none"> • Support to health centres • Provision of impregnated mosquito nets • Information and sensitisation sessions on the risks of STIs/AIDS 	PMU	<ul style="list-style-type: none"> • Support and involve the health facilities and the hygiene department in the prevention of water-borne diseases and vector control. • - IEC programme for site personnel and the population. 		ESA/PMU Communities CPSE Health District
	•		•		

NB: Technical Committee on Environmental Analysis (CTAE); Prefectoral Committee on Environmental and Social Monitoring (CPSE), Project Management Unit (PMU)

Normative and Regulatory Measures

When implementing certain works, the Contracting Authority and the firm will have to ensure that they comply with the provisions on regulations in general, and with the Environmental Code and the regulations on waste and emission management in particular.

i. Compliance with environmental regulations

In accordance with the Forestry Code, all clearing is subject to prior authorisation from the Forestry Department. The Forestry Department must also be involved in all programmes for the preservation or restoration of natural resources.

ii. Compliance with forest regulations

In accordance with the Forestry Code, all clearing is subject to prior authorisation from the Forestry Department. The Forestry Department must also be involved in all natural resources conservation or restoration programmes.

iii. Compliance with labour and hygiene legislation

All contracting companies shall respect and comply with AfDB guidelines in accordance with the Bank's ISS (**Operational Safeguard 5: Working Conditions, Health and Safety**) and relevant national regulations (Labour Code, Hygiene Code, etc.). Project implementing companies will take out insurance covering the accident risks and occupational illnesses for their staff.

iv. Procedures to be followed when archaeological remains are discovered

If monuments, ruins, remains of dwellings or ancient graves, inscriptions or objects that may be of interest to pre-history period, history, art or archaeology are discovered during works, the Contractor shall immediately report them to the competent administrative authority (the services in charge of cultural heritage) regarding the procedures to be followed. The Contractor shall take precautions to prevent his workers or any other person from removing or damaging these objects; it shall also notify the Contracting Authority of such discovery and implement its instructions on how to dispose of them.

9.2. Obligations to comply with environmental and social specifications

Construction companies must comply with the requirements of the environmental and social specifications, concerning, in particular, compliance with ESMP requirements and their clauses on compliance with regulations and the application of good practices.

vi. Environmental and social clauses

A model of environmental and social clauses to be adapted and inserted in the tender and works documents can be found in the Annex.

9.3. Specific Measures on the Impacts Likely to Result in a Resettlement Process

While there is certainly no risk of physical displacement of populations, the implementation of certain activities could require the acquisition of agro-sylvo-pastoral land, and result in the loss of assets, sources of income, access to resources, etc., which, depending on their scope, could eventually justify the preparation of a resettlement action plan (RAP).

If such losses are confirmed during programme implementation, RAPs should be prepared in accordance with Guinea's legal and regulatory framework for resettlement and in accordance with the Bank's Operational Safeguard 2 (SO2), Involuntary Resettlement, Land Acquisition, Displacement and Compensation).

The RAP is a mechanism for the mitigation and minimisation of the impact of resettlement, which defines the applicable rules, principles and procedures to be followed in order to assess, compensate and assist people negatively impacted by project activities. Whether or not affected persons have to relocate to another site, they should receive compensation for losses incurred, and any assistance needed to mitigate the impact.

The RAP will also identify various alternatives and mechanisms which make it possible to avoid or minimize resettlement. All technical, economic, environmental and social considerations shall be considered and taken into consideration in order to minimise resettlement to the extent possible. The RAP also provides information on regulations and procedures dealing with expropriation and compensation, methods of assessing affected property, eligibility criteria and categories of eligible persons, etc. It is important to point out that all persons who lose land (regardless of the tenure system) shall be compensated.

Compensation and assistance for each PAP should be proportionate to the degree of impact created to ensure that anybody affected is not disproportionately penalised. The principle is that a person who involuntarily loses or transfers property for a public purpose or for the benefit of the community should not be impoverished.

The resettlement programme should ensure that PAPs are informed, consulted and given the opportunity to participate in all stages of the process, from planning, implementation, to monitoring and evaluation. Vulnerable and/or marginalised affected populations should also be consulted and involved in the process and their views should be taken into consideration. They will receive special attention. The process of developing and implementing RAPs will be underpinned by a communication plan and the establishment of appropriate complaint handling mechanisms.

At this stage, the number of people who will actually be affected (PAPs) cannot be determined, nor can the precise number of resettlement plans to be implemented, nor their magnitude. However, provisions have been made in the FESMP for the conduct of possible ESIA's and RAPs during the programme's implementation.

9.4. Procedures and Responsibilities for FESMP Implementation

The mainstreaming of the environmental and social dimension within the SCPZ framework must be effective during all the other implementation stages.

9.4.1. Institutional Arrangements for FESMP Implementation

Different stakeholders will be involved in the implementation of environmental and social measures, in particular:

The Project Steering Committee which will be responsible for setting out the main strategic orientations for the programme's implementation and relevant implementation modalities. The committee shall make sure that representatives of the Ministry of the environment are present.

The Project Management Unit (PMU) will have overall responsibility for the implementation of all environmental and social safeguard documents and measures applicable to the program. It will be responsible for the preparation of these documents and for obtaining the certificates and permits required by national regulations before any action is taken. It will report to the Steering Committee on all due diligence and will ensure that the Bank and other stakeholders receive all environmental and social monitoring and supervision reports. The PMU will recruit an Environmental and Social Assessment (ESA) Expert who will coordinate and monitor environmental and social aspects and interface with other stakeholders involved in the safeguards.

The Environmental and Social Assessment (ESA) Experts will:

- Implement the FESMP;
- Act as the project interface for all issues on the application of the FESMP, the consideration of environmental and social aspects, and the implementation of any environmental and social studies and resettlement plans;
- Ensure that the construction companies and the monitoring mission comply with the environmental and social clauses inserted in the BDs;
- Perform site inspections to ensure that the planned environmental and social measures are taken into consideration;
- Respond to emergencies in the event of any incident or accident requiring verification and control;
- Report any failure to meet contractual commitments on environmental and social management.
- Ensure that complaints are identified and dealt with appropriately; and
- Ensure that regulations are complied with during project implementation.

The main duties of the Social Assessment Experts (SEA) will therefore be to:

- Take charge of the implementation of all social aspects of the Programme, including the preparation of resettlement plans;
- Ensure that the requirement to minimise displacement and resettlement is taken into consideration in the preparation of sub-projects;
- Assess the impacts of each activity in terms of displacement, and identify the activities to be subject to RAP;
- Facilitate expropriation procedures (information to PAPs, preparation of expropriation plans, preparation by the competent authorities of expropriation request orders, etc.) ;
- Prepare and validate the TORs;
- Participate in the selection and recruitment of consultants responsible for the preparation of RAPs;
- Ensure compliance with terms of reference, deadlines, quality of reports produced, etc..;
- Ensure that consultation and information take place at the appropriate time and place, in liaison with all stakeholders;
- Ensure that complaints are raised and dealt with appropriately; and
- Supervise the implementation of monitoring and evaluation actions.

BGACE will (i) carry out the environmental activity classification; (ii) ensure the environmental and social monitoring of the activities, as well as the approval of any ESIA's, and the adoption and dissemination of the information resulting from the environmental and social studies.

Other structures and organisations will also be strongly involved in the FESMP implementation: *Environmental Analysis Technical Committee (CTAE), the Prefectoral Committees for Environmental and Social Monitoring (CPSE), the communities concerned, technical services, service providers, NGOs, etc.*

Protocols or conventions on collaboration will be established between the PMU and the different actors and structures involved in the implementation of environmental and social measures.

9.4.2. Environmental and Social Screening Process

The steps for environmental and social selection have been outlined below:

Step 1: Selection and classification of environmental and social activities (sub-projects)

Once a sub-project has been identified and defined, the first step in the selection process is to identify and rank the activity to be carried out in order to be able to assess its impact on the

environment. To this end, an initial selection form has been proposed in the Annex for adaptation during implementation. The completion of the **initial selection form** will be carried out by the PMU's SESA. The Project Management Unit (PMU) will collaborate with the BGACE on the environmental and social selection of the activity.

Once the sites have been clearly identified and the design of the sub-projects defined to comply with national and AfDB requirements, project activities likely to have significant impacts on the environment will be classified into three categories:

- Category 1: Project with major environmental and social risks, requiring an ESIA;
- Category 2: Project with moderate environmental and social risks requiring an ESMP; and
- Category 3: Project with minor environmental and social risks, not requiring a study.

Step 2: Screening Verification and Validation

The classification's validation will have to be done by the BGACE.

The Bank's no objection is also required for the validation of sub-projects categorisation.

Step 3: ToR Preparation and Approval

After validation of the environmental category of the sub-project, the EAE and the SAE in collaboration with BGACE, will lead the process of implementing the environmental and social works, namely, application of simple mitigation measures; carrying out an Initial Environmental Analysis (IEA) or an in-depth Environmental and Social Impact Assessment (ESIA), and possible RAPs.

The preparation of the terms of reference of the studies will be prepared by the EAE and SAE and submitted to the BGACE and the AfDB for review and validation.

Step 4: Validation of the document and obtaining the environmental permit or certificate of conformity

Any ESIA reports are reviewed and validated by the Environmental Analysis Technical Committee (CTAE) under the BGACE's coordination, ensuring that all environmental and social impacts have been identified and that effective appropriate mitigation measures have been recommended. The environmental compliance certificate is then issued by the Minister of the environment on the proposal of the BGACE. The ESIA/ESMP and any future RAPs will also be forwarded to the AfDB for review.

Step 5: Publication of the document produced

The studies will be widely disseminated at the local, regional and national levels. The Project Management Unit (PMU) should therefore facilitate the wide dissemination of the studies in the most appropriate places, spaces and formats, where they can be freely consulted by all stakeholders, the population and the civil society. Registers will be opened; e-mail addresses and telephone numbers will also be circulated to collect all comments, observations and suggestions on the studies.

Step 6: Inclusion of environmental and social measures in bidding and implementation documents

The PMU will ensure that recommendations and other environmental and social management measures are included in the sub-projects' bidding and implementation documents.

Step 7: Preparation and Approval of the ESMP

All companies and service providers will, if necessary, prepare and implement an Environmental and Social Management Plan (Company-ESMP). The PMU's SESA will approve the company-ESMPs with the support of service providers responsible for monitoring the implementation (monitoring missions) and the Procurement Specialist (PS).

Step 9: Implementation of Environmental and Social Measures

For each sub-project, the contracting companies will be responsible for the implementation of environmental and social measures based on the ESMP-Site, taking into consideration, among other things, of the environmental and social clauses.

Step 10: Environmental and Social Monitoring by Supervision Missions

The close monitoring of the environmental and social measures implementation will be carried out by the monitoring offices (monitoring mission) which will be hired for this purpose will recruit a Health, Safety and Environment Officer (RHSSE).

Supervision of the activities will be provided by the EAE and SAE, as well as by the AfDB Safeguard Experts.

Step 11: E&S Monitoring

E&S monitoring will be carried out in the field by the Prefectural Committees on Environmental and Social Monitoring, under the coordination of BGACE in the regions where the sub-projects will be implemented.

Provide the role of the BGEE here

Provide the cost of monitoring.

Step 12: Supervision

The SAE and EAE as well as the AfDB Safeguards experts will be responsible for activity supervision.

Step 13: Annual Audit of environmental and social compliance

The audit of the implementation of environmental and social measures will be carried out by Consultants.

Step 14: Evaluation. It will be conducted by independent consultants, at the mid-term and at programme completion.

The table below summarises the mainstreaming of environmental and social aspects during project implementation.

Table 35: Summary of the mainstreaming of environmental and social aspects during implementation

No	Phases/Activities	Responsible	Support/ Collaboration	Service Provider	ADB Notice
1	Identification of the location/sites and technical characteristic studies of the sub-project	Decentralised Technical Services (DTS)	PMU	Consultant Engineer (CE)	
2	Completion of the initial environmental and social analysis form, classification and determination of the type of specific safeguard instrument (ESIA, EIAN, RAP)	Environmental Assessment Expert (EAE) and Social Assessment Expert (SAE) of the PMU	BGACE	-	
3	Categorisation approval	BGACE	PMU's ESAE		Yes
4	If an EIA/EIAN, RAP... is necessary				
4.1	Preparation, approval and publication of ToRs	PMU's EAE & SAE	BGACE		Yes
4.2	Conducting the study	Consultant	Procurement Officer (PO)	-	
4.3	Validation of the document and obtaining the environmental certificate	BGACE	SESA	Technical Committee on Environmental Analysis	Yes
4.4	Publication of the document	EAE & SAE	PMU	Media	
5	If an EIA/EIAN, RAP... is not necessary				
5.1	Selection and application of simple mitigation measures	PMU's EAE	Decentralised technical services	Consulting firm	
5.2	(i) Inclusion in the bidding documents (DDs) of the sub-project, environmental and social clauses and other mitigation measures	PMU's PO	EAE & SAE + Environmental Technical Services	CE + Consulting firm	
6	Internal monitoring of the implementation of E&S measures	RHSSE of the firm	Technical Services	CE	
6.1	Dissemination of the internal monitoring report	PMU	RHSSE of the consulting firm	-	
7	Environmental and social monitoring	PMU's EAE & SAE	Decentralised technical services	Analytical laboratories/specialised centers + NGOs	
8.	Supervision of the implementation of the Programme's E&S measures	AfDB E&S Supervision Mission	PMU's ESAE	-	Yes
9.	Building stakeholders' capacity for E&S implementation	EAE & SAE	Technical Services	<ul style="list-style-type: none"> • Consultants • Competent public structures • NGO 	

No	Phases/Activities	Responsible	Support/ Collaboration	Service Provider	ADB Notice
10.	Audit of the implementation of E&S measures	Consultant	<ul style="list-style-type: none"> • PO+ BGACE • Local Authorities 	-	Yes

Table: Summary of the mainstreaming of environmental and social aspects during implementation

No	Phases/Activities	Responsible	Support/ Collaboration	Service Provider	ADB Notice
1	Identification of the location/sites and technical characteristic studies of the sub-project	Decentralised Technical Services (DTS)	PMU	Consultant Engineer (CE)	
2	Completion of the initial environmental and social analysis form, classification and determination of the type of specific safeguard instrument (ESIA, EIAN, RAP)	Environmental Assessment Expert (EAE) and Social Assessment Expert (SAE) of the PMU	BGACE	-	
3	Categorisation approval	BGACE	PMU's ESAE		Yes
4	<u>If an EIA/EIAN, RAP... is necessary</u>				
4.1	Preparation, approval and publication of ToRs	PMU's EAE & SAE	BGACE		Yes
4.2	Conducting the study	Consultant	Procurement Officer (PO)	-	
4.3	Validation of the document and obtaining the environmental certificate	BGACE	SESA	Technical Committee on Environmental Analysis	Yes
4.4	Publication of the document	EAE & SAE	PMU	Media	
5	<u>If an EIA/EIAN, RAP... is not necessary</u>				
5.1	Selection and application of simple mitigation measures	PMU's EAE	Decentralised technical services	Consulting firm	
	(i) Inclusion in the bidding documents (DDs) of the sub-project, environmental and social clauses and other mitigation measures	PMU's PO		CE + Consulting firm	

No	Phases/Activities	Responsible	Support/ Collaboration	Service Provider	ADB Notice
5.2			EAE & SAE + Environmental Technical Services		
6	Internal monitoring of the implementation of E&S measures	RHSSE of the corporation	Technical Services	IC	
6.1	Dissemination of the internal monitoring report	PMU	RHSSE of the consulting firm	-	
7	Environmental and social monitoring	PMU's EAE & SAE	Decentralised technical services	Analytical laboratories/specialise d centers + NGOs	
8.	Supervision of the implementation of the Programme's E&S measures	AfDB E&S Supervision MissionD	PMU's ESAE	-	Oui
9.	Building stakeholders' capacity for E&S implementation	EAE & SAE	Technical Services	<ul style="list-style-type: none"> • Consultants • Competent public structuress • NGO 	
10.	Audit of the implementation of E&S measures	Consultant	<ul style="list-style-type: none"> • PO+ BGACE • Local Authorities 	-	Yes

Other Measures and Recommendations:

The Contracting Companies must implement the environmental and social measures and comply with the directives and other environmental requirements contained in the works contracts. To this end, they must, if necessary, have a Health, Safety and Environment Officer.

The Consultancy and Control Offices, as delegated contracting authorities, must ensure control of the effectiveness and efficiency of the implementation of environmental and social measures and compliance with the directives and other environmental requirements contained in the works contracts. The control offices are responsible for the monitoring and implementation of the ESMPs, with a supervisor specialised in Health, Safety and Environment on their team.

The local authorities in the project area will participate in the close monitoring of the implementation of FESMP recommendations, but also in informing and sensitising the population.

9.5. Monitoring and Evaluation Programmes

There is always a degree of uncertainty in the precision of impacts and proposed measures. For this reason, it is necessary to develop an environmental and social monitoring and follow-up programme. The objective of this programme is to ensure that the selected mitigation and compensation measures are implemented and applied according to the planned schedule.

In collaboration with the BGACE, several other bodies and stakeholders will be involved in environmental monitoring: the Prefectural Environmental Monitoring Committees, the PMU's environmental and social assessment expert, the technical services of the Ministries concerned and the local authorities.

The holding of a workshop to share the FESMP with the implementing partners will facilitate their involvement in the programme's environmental and social management process.

i. Indicators for monitoring environmental measures and the monitoring system

Indicator categories to be monitored by the environmental and social assessment expert or officer (as a guideline)

- Number of projects having undergone an environmental and social selection process;
- Number of projects that have undergone IEA or ESIA;
- Number of bidding and implementation documents that have included environmental and social requirements;
- Number of hectares reforested;
- Number of projects that have implemented environmental and social mitigation measures;
- Number of workers and people sensitised on hygiene, safety and STI/HIV/AIDS measures;
- Level of involvement of local authorities and stakeholders in the monitoring of the works (number of meetings, site visits, etc.);
- Number and nature of jobs created locally (local labour used for the works)
- Number and nature of accidents reported;
- Number and type of claims;
- Number of Project Affected People;
- Number of resettlement plans developed and implemented; and
- Nature and level of possible compensation.

As a suggestion, the following tables present indicators for the monitoring of certain measures.

Table 23: Indicators for the Monitoring of FESMP Measures

Measures	Areas of Intervention	Indicators
Technical Measures	Conducting environmental and social studies and resettlement plans	Number of IEAs, SEAs and RAPs produced.
Monitoring and Evaluation Measures	Environmental monitoring and surveillance ESMP assessment (internal, mid-term and final)	Number of missions and reports Level of consideration of recommendations (number of formal notices, etc.).
Training	Environmental and social evaluation of projects; Monitoring and implementation of environmental measures Pest and pesticide management	Number and nature of modules developed Number and types of people trained.
Sensitisation	Communication and sensitisation campaign	Number and type of people sensitised.

Table 24: Indicators and Monitoring System for Environmental and Social Components

Monitoring Items and Indicator	Monitoring Methods and Mechanisms	Responsible	Period
Water - Pollution - Eutrophication - Sedimentation - Hydrological regime	- Ground and surface water quality control - Monitoring of water use activities - Visual assessment of stream flow - Turbidity control of streams and water bodies - Control of mitigation measures.	Monitoring Mission	Daily during the works
		Specialised Services Research Center Water department Programme Management Unit (PMU) BGEEE Prefectorial Committees on Environmental Monitoring (CPSE)	Half-yearly Beginning, mid-term and project completion
Soils	- Assessment of measures to combat salinisation	Monitoring Mission	Daily during the works

Monitoring Items and Indicator	Monitoring Methods and Mechanisms	Responsible	Period
<ul style="list-style-type: none"> - Erosion/Gullyi ng - Pollution/degra dation 	<ul style="list-style-type: none"> - Visual assessment of soil erosion control measures 	PMU BGEEE Specialised Services Prefectorial Committees on Environmental Monitoring	Half-yearly Beginning, mid-term and completion
Vegetation/Wildli fe Degradation rate Reforestation rate	<ul style="list-style-type: none"> - Area deforested (in ha), number of trees destroyed by species - area reforested or planted (in ha), number of plants/species - Control and monitoring of sensitive areas - Wildlife damage control 	Monitoring Mission	Daily during the works
		PMU BGACE Forestry Department Prefectorial Committees on Environmental Monitoring	Quarterly Beginning, mid-term and works completion
Human Environment Lifestyle Socio-economic activities Space occupancy	<ul style="list-style-type: none"> - Control of the occupation of private land/agricultural fields - Respect for historical heritage and sacred sites - Control of the effects on production sources - Conflict and dispute Management: setting up a consultation framework and communication plan. 	Monitoring Mission	Daily during the works
		Services concerned PMM Prefectorial Committees on Environmental Monitoring	Beginning, mid-term and completion.
	Verification: <ul style="list-style-type: none"> - The presence of disease vectors and the emergence of water-related diseases - Various project-related diseases (STI/HIV/AIDS, etc.) - Compliance with hygiene measures on the site - Monitoring of waste management practices 	Monitoring Mission	Daily during the works.
		PMU Health Districts Prefectorial Committees on Environmental Monitoring	Quarterly Beginning, mid-term and works completion.

Monitoring Items and Indicator	Monitoring Methods and Mechanisms	Responsible	Period
Workplace safety	Verification: <ul style="list-style-type: none"> - Availability of safety instructions in case of accident - Compliance with traffic regulations - Wearing proper protective equipment 	Monitoring Mission	Daily during the works

The following table presents some indicators and monitoring mechanisms

Table 25 Some indicators and monitoring mechanisms

Components	Recommended Parameters	Indicators	Frequency	Responsible	
				Surveillance	Monitoring
Water	<ul style="list-style-type: none"> • Limnometric level • Dissolved oxygen • Temperature • Ammonium • PH • Conductivity • Turbidity • Organic matter • Coliforms • Chlorophyll A • Cyanobacteria • Pesticides • Heavy metals (mercury, lead, cadmium) • Conductivity • Nitrate • Total coliforms 	<ul style="list-style-type: none"> • Quantity of oxygen contained in a given volume of water. • Water temperature at time T • PH balance • Amount of suspended matter in a given volume of water • Amount of organic matter suspended in a given volume of water. • Concentration of coliform in a given volume of water • Chlorophyll concentration in a given volume • Concentration of Cyanobacteria in a volume • Concentration % of pesticide in one liter of water • Concentration of heavy metals in a liter of water • Nitrate concentration per volume of water • Concentration of Coliforms 	twice a year (end of rainy season and end of dry season)	SESA/PMU/ Technical services concerned	Prefectorial Committees on Environmental Monitoring (CPSE)/ BGACE
Soil	<ul style="list-style-type: none"> • Evolution of degraded soils • Evolution of soil salinity 	<ul style="list-style-type: none"> • Physical and/or chemical state of a soil that prevents its development. • Area of land affected 	Yearly	SEA/PMU CPSE Technical services concerned	BGCE
Vegetation Wildlife	<ul style="list-style-type: none"> • Plant cover rate • Evolution of wildlife and avifauna populations 	<ul style="list-style-type: none"> • Evolution of vegetation cover per unit area and per species • Annual variation in wildlife and avifauna population • Quantity / Ichtyo fauna species 	Yearly	SEA/PMU Forestry departments Parks Communities	CPSE / BGACE

Components	Recommended Parameters	Indicators	Frequency	Responsible	
				Surveillance	Monitoring
Agricultural Production Systems	<ul style="list-style-type: none"> Volume of inputs consumed (pesticides, herbicides, fertilisers) Rate of adoption of integrated pest management methods Management of waste (liquid, solid) from processing activities By-product recovery rate Agronomic quality of soils Presence of certain crop pests 		Yearly	SEA/PMU Technical services concerned	CPSE / BGACE
Gender	<ul style="list-style-type: none"> Percentage of women employed in the project Ratio of men's wages to women's wages Number of men and women participating in awareness and information activities on the project Number of men and women participating in training activities Number of women who have been able to use plots developed with the support of the project and area of plots 		Yearly	SEA/PMU Gender Services Community	CPSE/ BGACE

Within the framework of the implementation of the ESMP, a model environmental and social monitoring and Surveillance framework is presented in the following table:

Table 26: Environmental and Social Monitoring and Surveillance Framework

Monitoring Elements	Methods and Monitoring Mechanisms	Responsible		Period
		Surveillance	Monthly	
Water	<ul style="list-style-type: none"> Water pollution monitoring 	Monitoring Office (MO)	BGACE	During the works
		Prefectorial Committees on Environmental Monitoring (CPSE)		Monthly
		Project Management Unit (PMU)		
Soil	<ul style="list-style-type: none"> Soil reclamation monitoring Soil contamination monitoring Erosion control measures monitoring 	Monitoring Office (MO)	BGACE	During the works
		CPSE		Monthly
		PMU		
Pollution and nuisances	<ul style="list-style-type: none"> Waste collection and disposal practices monitoring Control of waste disposal sites for excavated material and other residues 	MO	BGACE	During the works
		CPSE		Monthly
		PMU		

Monitoring Elements	Methods and Monitoring Mechanisms	Responsible		Period
		Surveillance	Monthly	
Vegetation	<ul style="list-style-type: none"> Assessment of degradation Evaluation of reforestation measures 	MO	BGACE	During the works
		CPSE PMU /Forestry Departments		Monthly
Health, hygiene and safety measures during the works	<ul style="list-style-type: none"> Respect of hygiene measures on the site 	MO	BGACE	During the works
		CPSE PMU		Monthly
	Verify: <ul style="list-style-type: none"> Availability of rules of procedure on site Existence of appropriate signage Compliance with traffic regulations Respect of the speed limit Respect of working hours Wearing proper protective equipment Availability of safety instructions in the event of an accident Availability of first aid kits Respect of hygiene rules on the construction site Etc. 	MO	BGACE	During the works
		CPSE SESA/PMU		Monthly

ii. Reporting Mechanism

For better monitoring of the implementation of the ESMP, the following reporting mechanism is suggested:

- Periodic (quarterly) monitoring reports on the implementation of the ESMPs should be produced by the BGACE;
- Monthly reports by the Monitoring Offices during the works; and

- Periodic (monthly) monitoring reports on the implementation of the ESMP must be produced by the Prefectural Committees on Environmental Monitoring.

9.6. Complaint Handling and Resolution Mechanism

The existence of various conflicts and disputes between users and stakeholders (farmers-breeders, stock-breeders-forestry services, etc.) was highlighted during the consultations. It also widely emerged from the consultations that the setting up of a suitable information and sensitisation programme, as well as operational concertation frameworks bringing together all the stakeholders, will make it possible to mitigate and anticipate possible conflicts, and considerably optimise SCPZ positive impacts and effects of the.

The Bank's Disclosure and Access to Information Policy also recommends a consultative and proactive approach facilitating the participation of local populations affected by Bank-financed projects. The Bank is also committed to: (i) ensuring that clients establish strong and independent credible local grievance and redress mechanisms to participate in resolving the grievances and problems of those affected by the project's environmental and social impacts; and (ii) providing those who are, or are likely to be, adversely affected by projects with the opportunity to request that the Bank complies with its own policies and procedures.

Therefore, the programme's implementation could exacerbate various disputes and conflicts, especially regarding the land acquisition process and the risks related to the loss or limitation of access to natural resources. Therefore, it is important at this stage of the programme's formulation to outline a complaint handling mechanism which will be further elaborated and readapted during implementation.

The purpose of a complaint handling mechanism is to:

- Minimise and anticipate potential conflicts and disputes;
- Establish a culturally acceptable and accessible process for individuals and communities to express their concerns, preoccupations, complaints, etc;
- Provide a channel for communities and anyone affected by the project, or who may have complaints, as well as vulnerable and marginalised groups, to express their concerns in a free, effective and transparent manner; and
- Implement a process by which complaints can be addressed in an efficient and transparent manner.

The process for processing and managing the receipt, evaluation and handling of complaints is outlined below.

1. Any person feeling aggrieved or having grievances to submit shall file a petition in his locality to the Authorities (village chiefs) who will analyze the facts and

make proposals; these Authorities may call upon a Local Committee or Elders for an amicable resolution;

2. In case of disagreement, the complaint shall be forwarded to the Prefecture where a Commission will be in charge of studying the disputes from the local level; and
3. If the complainant is not satisfied, he or she may take the matter to the courts.

Recourse to the courts is possible in the event of failure to reach an amicable settlement. However, it is often not recommended as it can be a source of blockage and delay in the project's implementation. Indeed, recourse to the courts generally requires relatively long and uncontrolled procedures and can also generate significant costs for the plaintiff.

Recourse to legal proceedings should therefore be avoided as much as possible and dialogue, consultation and amicable solutions should be prioritized. It is important to promote the establishment of an out-of-court mechanism for handling disputes through an appropriate information and sensitisation campaign and the involvement of various resource persons and opinion leaders.

In practice, it is recommended that the Programme establish a register or "complaint register" with each village chief or its equivalent in each human settlement located in the impact zone; a centralised complaints register will be kept at the Project Management Unit (PMU). The existence of these "books" and register as well as the conditions of access will be widely disseminated among the populations and communities.

The following measures and mechanisms can help mitigate and anticipate potential conflicts:

- Set up a suitable information and sensitisation programme;
- Involve stakeholders through a participatory and inclusive approach to the entire programme implementation process;
- If necessary, have recourse to the arbitration of community leaders;
- Set up local and prefectural Conciliation Committees; and
- Use the courts/judicial systems only as a last resort when all attempts at amicable resolution have been unsuccessful.

To this end, there are traditional conflict resolution mechanisms throughout rural Guinea which the project could use to limit recourse to the courts.

9.7. Capacity Building Programme

The FESMP has defined a "screening" methodology that allows for a classification of the sub-projects and also an environmental follow-up and monitoring programme. Several stakeholders and bodies will therefore be involved in the implementation of the FESMP, with very different levels of expertise and experience in the area of environmental and social assessments. Indeed, it emerged from the consultants that various other stakeholders responsible for the implementation of environmental and social policy or involved in environmental and natural

resource management, especially at the decentralised level, do not have expertise in the area, nor sufficient means and resources to successfully carry out their missions.

As for the BGACE which has benefited from the support of various development partners, especially that of the AfDB, has proven expertise and experience in environmental and social safeguards. However, the material means of monitoring are often lacking.

These different stakeholders who will be involved in the consideration of environmental and social aspects will benefit from a capacity building programme in the area of environmental and social safeguards.

The Project Implementation Unit (PIU) will be responsible for providing administrative, technical and financial support for the design and implementation of the capacity building programme in the area of environmental and social assessments (screening, environmental monitoring and surveillance, etc.).

BGACE will be involved in the formulation, coordination and implementation of the capacity building programme.

Based on the issues and expectations raised during the consultations, a training programme on pest and pesticide management is also planned.

The EAE and SAE will be responsible for the implementation of the stakeholder capacity building program with the support of consultants and relevant departments.

The following table outlines a capacity building program, which will be formulated and adapted, and the modalities outlined during implementation.

Table 27: Capacity-building Measures

Stakeholders involved	Training Themes	Expected Outcomes
Technical Services Professional organisations, Producers, etc.	<ul style="list-style-type: none"> Pest and pesticide management 	<ul style="list-style-type: none"> Optimisation of production Sustainable management of natural resources Application of good practices Reduction of risks to human and animal health
Technical Services Project Management Unit Communities, NGOs Consultants, etc.	<ul style="list-style-type: none"> Screening procedure for sub-projects Development of an environmental and social management guide for sub-projects Environmental assessment and follow-up and monitoring. 	<ul style="list-style-type: none"> Follow-up and monitor the implementation of the FESMP and other ESMP environmental measures that will be developed.

Stakeholders involved	Training Themes	Expected Outcomes
	<ul style="list-style-type: none"> AfDB Procedures 	

9.8. Cost of ESMP Measures

Some enhancement measures have already been factored into the programme costs. These include, in particular, the programme to restore and protect the natural habitat around development and other infrastructure, the manufacture of improved stoves, the extension of resilient agricultural practices, the natural resource regeneration component, the gender and women's empowerment component; the Manual of Good Environmental Practices; the establishment of an environmental and social baseline, the recruitment of the Environmental and Social Assessment (ESA) expert, development of potential ESIA's, Resettlement Action Plans (RAPs), Pest and Pesticide Management Plans (PPMPs), etc..

The additional programme on gender and women's empowerment which will be formulated through a participatory and inclusive approach, its cost is included in the project's budget.

Various other FESMP mitigation measures such as the application of good practices and environmental and social measures, waste management, rehabilitation of quarries and borrows, safety measures, programmes, restoration and erosion control, etc., will be included in the bidding documents (BDs) and firms will be required to implement them under the supervision of the control office and the PIU. The FESMP cost estimate will focus on environmental and social measures not covered by the programme and the BDs.

The estimate will cover the following environmental and social measures:

- The development and implementation of an information and awareness programme;
- The establishment of functional consultation frameworks and grievance handling mechanisms;
- Formulation and implementation of a waterborne disease control programme/ STI/HIV/AIDS sensitisation programme;
- The development and implementation of a capacity building⁷ programme in the areas of (i) environmental and social assessments and (ii) pesticide management;
- Provision for the development of eventual ESIA's and RAP;
- Provision for monitoring the implementation of the ESMP; and
- Provision for Evaluation and Audit.

⁷ The preparation of manuals on good environmental practices has been factored into the programme.

The FESMP overall cost is estimated at USD1,300,000. Details are in the following table.

Table 28: FESMP Cost

Measures	Costs in USD
Implementation of consultation frameworks and complaint handling mechanisms	200,000
Formulation and implementation of a waterborne disease control programme/ STI/HIV/AIDS awareness raising	100,000
Development and implementation of a capacity building programme in the areas of (i) environmental and social assessments and (ii) pesticide management	200,000
Development and implementation of an information and sensitization programme	100,000
Provision for the development of ESIAs, potential RAPs, etc.	500,000
FESMP implementation monitoring support	100,000
Mid-Term Evaluation	30,000
Final Evaluation	30,000
Environmental Audit/Mid-term and Final Review	100,000
Total	1,360,000

9.9. INDICATIVE IMPLEMENTATION SCHEDULE FOR ENVIRONMENTAL AND SOCIAL MEASURES AND REPORT PRODUCTION

The following table presents the indicative timetable for the FESMP implementation.

Table 29: INDICATIVE IMPLEMENTATION SCHEDULE FOR ENVIRONMENTAL AND SOCIAL MEASURES

MEASURES	PROPOSED ACTIONS		WORKS DURATION				
			Year1	Year 2	Year 3	Year 4	Year 5
Mitigation Measures	FESMP		During implementation				
Monitoring Measures	Environmental follow-up and environmental monitoring of the project	Close monitoring	During implementation				
		Supervision	Monthly during works				
	Review	Mid term final	2nd year Works completion				
Production of reports (monthly, quarterly, half-yearly and annual) on FESMP implementation							

The FESMP implementation will be validated by the production of periodic monitoring and supervision reports, but also by evaluation and supervision by the various stakeholders and bodies involved in its implementation.

X. CONCLUSION

SCPZ activities will have significant favourable impacts and effects at the national, regional and local levels. This transformative programme will contribute significantly to the attainment of the objectives of the country's various economic and social development policies, especially those aimed at achieving food self-sufficiency, combating malnutrition, alleviating poverty, etc. The programme will also contribute significantly to the achievement of the country's economic and social development objectives. The programme will contribute significantly to the improvement of the living conditions of the targeted populations, the opening up of production areas and the improvement of the level of access to socio-economic facilities, the diversification of agricultural production systems, the management of water and technical itineraries, the increase in income, the building of beneficiaries' capacities, marketing, reduction of unemployment and the youth exodus, the enhancement of conditions and the empowerment of women, the improvement of governance, etc. At the environmental level, the programme will contribute to better land and water management, enhancement of the resilience and adaptation capacity of beneficiary communities to climate change impacts, ecosystem regeneration, climate change mitigation and greenhouse gas sequestration.

However, some programme activities are likely to generate significant adverse effects and impacts if certain mitigation measures are not taken. The most significant negative impacts and effects would be related to: (i) deforestation for the release of rights-of-way; (ii) construction site nuisances (noise, dust, waste, safety, etc.); (iii) the impact of the program on the

environment. The most significant impacts and negative effects would relate to: (i) deforestation to free up land; (ii) construction site nuisances (noise, dust, waste, safety, etc.) during the implementation of certain development activities and works; (iii) the increased risk of water pollution due to the increased use of fertilizers and pesticides with a view to intensifying agricultural production; (iv) the increased prevalence of waterborne or water-related diseases due to the creation of temporary water bodies; and (v) the risk of increased conflicts between farmers and herders over access to new water resources or space.

Most of these impacts can be minimised or mitigated either by applying good practices or by conducting environmental and social impact studies and preparing possible resettlement plans, once sub-projects and sites have been clearly defined. The additional activities of the Green Climate Fund (GCF) as well as the programme itself, have provided for various measures to offset and enhance the programme's potential impacts. The FESMP has also called for additional and complementary measures that will make it possible to take into consideration the essence of the programme's potential impacts.

XI. ANNEXES

Annex 1: Terms de Reference

TERMS OF REFERENCE

UPDATING THE PROJECT'S ENVIRONMENTAL AND SOCIAL ASSESSMENT DOCUMENT

Background and Rationale

Guinea imports nearly USD 745 million of food products (2016), whereas it has enormous potential for the development of a diverse range of agro-sylvo-pastoral products and a blue economy. Indeed, the country has significant natural resources and potential, including hydraulic, mining, energy, land, wildlife, fisheries, etc., with a river network of over 6,500 km; a potential of 6,200,000 ha of arable land (of which only 25% is exploited almost entirely in rainfed farming); 364,000 ha of irrigable land including 81,000 ha has been developed, etc.

Agriculture, in the broadest sense of the term (plant and animal production, fisheries and forestry), is the main sector of activity that employs more than 70% of the country's active population. However, agricultural yields are still low, leading to impoverishment and food and nutritional insecurity for a large majority of the population. The Ebola epidemic (February 2014-1 June 2016), with more than 2,500 deaths, had also affected the country's economy.

It is in this context that Guinea has requested the Bank's support for the implementation of a major program for the development of Agro-Industrial Processing Zones (APZs).

Study Objectives and Components

The project's sector objective is to contribute to increasing food and nutrition security. The specific objective is to contribute to the emergence of agro-industrial poles in the Regions of Upper and Lower Guinea through a stimulation of the promising agro-sylvo-pastoral sectors and an increased involvement of the private sector, as leader driving the APZ process, youths and women, as beneficiaries and key actors of success of this initiative.

The SCPZ basically consists of the following four (4) components: (i) Support for Governance and Incentives; (ii) Development of Infrastructure to Support Agricultural Transformation; (iii) Support for Key Stakeholders in Priority Agricultural Sectors; and (iv) Programme Coordination and Management. The SCPZ and these four components were subject to an environmental and social assessment in 2019. In agreement with the Green Climate Fund (GCF), the following activities were integrated into the core project.

Installation of 4,251kW of solar energy for the lighting, processing, drying and packaging of basic food crops.

Support access to financing for small farmers to enable them to invest in drip irrigation technology, powered by solar pumps (780 kW installed capacity), for horticulture and market gardening of fruits and vegetables, including cash crops on an area of at least 11,810 ha.

Under this activity funded by the GCF, the programme will focus on agricultural practices that can enhance resilience to climate change (CCR) in Guinea. According to FAO and USAID, climate resilience practices can reduce climate impacts on agricultural productivity and generate additional benefits by enhancing resilience to floods and droughts. Some CCR practices have been

shown to improve soil quality and could double the yield per hectare. The programme will therefore invest in the promotion and use of these selected CCR practices, including the dissemination of climate-resilient rice, maize, coffee, potato, mango, and cashew nut varieties, including seed production and multiplication, in collaboration with Guinea's Institute of Agronomic Research (IRAG).

In addition, the programme will assist farm households to establish sustainably managed forests (about 10,000 ha) for income generation from forest resources, cashew nuts, mangoes and coffee orchards for carbon sequestration. Agro-forestry practices will provide a more sustainable alternative source of income and many other benefits for smallholder producers, as they offer real synergies between adaptation and mitigation. According to Mbow et al (2014), agroforestry is a source of income from carbon and wood fuels, it improves soil fertility and creates micro-climates, provides ecosystem services and reduces the intensity of human impacts on natural forests. In general, agro-forestry improves the economic and resource sustainability of agriculture while sequestering greenhouse gases. It provides a particular set of innovative practices that are designed to improve productivity in a way that contributes to climate change mitigation through increased carbon sequestration, and can also enhance the system's capacity to cope with the adverse effects of climate change (Torquebiau, 2013). Emphasis is being placed on improving crop and pasture management in conjunction with tree intercropping, with the aim of improving the management of forest goods and services (Rizvi et al., 2015). From the energy point of view, agro-forestry reduces the pressure on harvesting wood from natural tree cover by increasing wood supply to the farm^{8,9,10} (Iiyama et al. 2014)¹¹. Also, the GCF intervention will increase community resilience through capacity building, awareness and institutional strengthening on climate information and early warning systems (CIEWS) for risks preparedness and readiness.

Deployment of low-carbon energy technologies. Waste (liquid and solid wastes), food and agribusiness wastes that could pose sanitation and waste management problems in Guinea are indeed sustainable "resources" for biogas technology. Thus, the objective of this activity is to specifically reduce GHG emissions in the programme's priority agricultural value chains through the use of low-carbon energy sources. This will involve the installation of 4.13 MW of renewable energy from biogas production or about 9,911 m³ of biogas bio-digester to treat livestock manure and produce biogas for heating or electricity generation. The energy supply will support the processing of products, the supply of electricity to cold storage facilities, where appropriate, so that farmers can offer their produce according to market standards. Energy will also provide opportunities for farmers to diversify their sources of income.

Consultant's Expected Performance

The Consultant is expected to carry out a desk review of the environmental and social assessment of the SCPZ, integrating aspects related to the Green Climate Fund based on the consolidation of the ESEA carried out in 2019. The Consultant will therefore develop an Environmental and Social Management Framework (ESMF) together with a Framework for Environmental and Social Management Plan (FESMP) for the project, in accordance with Guinea's regulations and the AfDB's Environmental and Social Assessment Policies and Procedures.

⁸ Mbow, C., Smith, P., Skole, D., Duguma, L., Bustamante, M. (2014). Atteindre l'atténuation et l'adaptation au changement climatique grâce à des pratiques agroforestières durables en Afrique. *Opinion actuelle sur la durabilité environnementale*, 6, 8-14.

⁹ Torquebiau, E. (2013). Agroforesterie et changement climatique. Webinaire de la FAO. <http://www.fao.org/climatechange/36110-0dff1bd456fb39dbcf4d3b211af5684e2.pdf>

¹⁰ Rizvi, A. R., Baig, S., Barrow, E., Kumar, C. (2015). Synergies entre l'atténuation du climat et l'adaptation dans la restauration du paysage forestier.

¹¹ Iiyama, M., Neufeldt, H., Dobie, P., Njenga, M., Ndegwa, G., Jamnadass, R., 2014. The potential of agroforestry in the provision of sustainable woodfuel in sub-Saharan Africa. *Current Opinion in Environmental Sustainability* 6, 138-147.

Expected Performance Results

The consultant will need to review each section of the 2019 ESA to ensure that it is relevant to the current project configuration, with additional Climate Fund activities.

The study should provide an Environmental and Social Management Framework (ESMF) in which (i) the project intervention areas' initial environment is dynamically characterised; (ii) the legal and regulatory framework for environmental management has been analysed; (iii) the different types of potential impacts associated with the project interventions have been identified; (iv) enhancement, mitigation and/or compensation measures have been defined and their implementation costs have been costed; v) the roles and responsibilities of the different entities involved in the implementation of these measures have been specified; vi) an environmental monitoring and surveillance plan has been developed, the monitoring and evaluation modalities have been specified; vii) capacity building needs have been assessed; and viii) an analysis and sorting procedure has been defined to determine for each proposed activity, etc..

Mission Duration

The consultation will last 7 working days, from Friday, 25 September to Monday, 5 October 2020.

Consultant's profile and qualifications

The conduct of this study will be entrusted to a qualified individual Consultant with the following profile and experience in line with the mission:

- Hold at least a Master's Degree or an equivalent degree in Environmental studies, Geography, or any relevant discipline;
- Have more than 15 years of relevant professional experience in the field of environmental and social assessments;
- Have a good knowledge of Guinea's legislative framework and the country's environmental issues;
- Have experience in environmental and social assessments related to development projects; and
- Familiarity with AfDB procedures will be an advantage.

Annex 2: Data on the Characteristics of the Programme's Area of Influence

Table 30: Key Data on Guinea's River Basins (2016)

River basins	Watershed area (km ²)	Length (km)	Volume yearly received (106m ³) /yr	River basins	Watershed area (km ²)	Length (km)	Volume yearly received (106m ³) /yr
1 Cogon	8,502	379	17,174	12 Gambia	12,038	211	12,418
2 Tinguilinta	5,031	160	11,652	13 Senegal	18,972	450	44,284
3 Kapatchez	2,906	105	8,209	14 Kaba	5,427	91	7,850
4 Fatala	6,092	205	13,945	15 Niger	97	168,661	147,662
5 Konkoure	18,692	339	39,689	16 Sassandra	10,839	87	20,898
6 Soumba/Killy	392	39	9,282	17 Cavalry	2,116	75	3,915
7 Killy/Soumba	300	31	9,282	18 Mani	2,506	157	3,370
8 Forecariah/Bofon	2,226	103	6,789	19 Diani	9,333	246	17,323
9 Mellakoue	1,049	50	3,252	20 Loffa	1,684	64	4,718
10 Kolente	5,178	210	10,741	21 Makona	8,384	262	20,655
11 Koliba/Tomine	18,122	407	26,694	22 Mano	10	3	12
				23 Kayanga/Geba	20	5	24

Source: National Water Directorate / Ministry of Energy and Water Resources

Table 44: Average temperatures/region

NAME			1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Conakry	Warmest month of the year	Month	April	May	April	May	May	April	March-April	March	April	March		
	Maximum average temperature of the month	°C	33.7	31.7	33.2	32.7	32.7	32.8	33	32.1	32.3	32		
	Least hot month of the year	Month	August	October	April	May	April	January	January	August	January	January		
	Minimum average temperature of the month	°C	23.0	22.7	25.2	24.4	25.2	22.4	22.6	22.5	21.7	19.8		
Kindia	Warmest month of the year	Month	March	May	April	April	March	March	March	March	March	March		
	Maximum average temperature of the month	°C	36.0	33.5	35.7	35.9	36.3	35.6	35.4	36.1	35.9	35.9		
	Least hot month of the year	Month	December	December	April	April	April	January	January	January	December-January	January		
	Minimum average temperature of the month	°C	19.4	19.8	22.3	22.2	22.2	20.3	20.3	20.4	19.6	19.2		

NAME			1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Labe	Warmest month of the year	Month	March	April	April	March	April	April	April	March	April	April		
	Maximum average temperature of the month	°C	33.4	33.5	33.4	33.4	33.5	33	33.8	32.8	34.4	34		
	Least hot month of the year	Month	ND	December	May	May	May	January	December	December	December	January		
	Minimum average temperature of the month	°C	ND	10.3	18.9	19.0	18.9	20.8	20.3	11.3	9.9	9.3		
Kankan	Warmest month of the year	Month	March	March	March	March	March	March	March	April	March	April	March	February
	Maximum average temperature of the month	°C	38.0	37.5	38.5	39.5	38.2	38.4	38.3	37	38.3	33.5	37.6	38.6
	Least hot month of the year	Month	December	December	May	May	May	January	December	December	December	January	January	January
	Minimum average temperature of the month	°C	15.0	10.3	18.9	19	18.9	20.8	20.3	11.3	9.9	9.3	14.2	16.4
N'Zérékoré	Warmest month of the year	Month	March	February	February	February	February	February	February	February	February	February	February	February
	Maximum average temperature of the month	°C	33.5	32.8	34.0	31.7	33.5	32.8	33	32.5	33.5	30.4	32.8	32.9
	Least hot month of the year	Month	December	December	March	May	May	January	January	December	January	January	January	January
	Minimum average temperature of the month	°C	16.8	19.1	21.5	21.9	21.9	18.5	17.5	16.5	16.6	14.3	17.3	19.4

Source: National Meteorology Directorate Statements

Table 45: Changes in Monthly Maximum and Minimum Temperatures (°C) Boké

Boké	2010	2011	2012	2013	2014	2016	2017
Maximum averages	39.0	38.3	37.1	36.7	37.7	37.2	38.4
Average of the minima	18.6	17.8	17.3	16.3	18.2	17.4	18.6
Least hot month	January	December	December	January	January	December	February

Yearbook of Environmental Statistics 2016

Table 46: Changes in Monthly Maximum and Minimum Temperatures (°C) Kankan

Kankan	2010	2011	2012	2013	2014	2016	2017
Average of maxima	38.6	38.0	38.1	39.3	38.1	37.8	39.0
Hottest month	February	March	March	March	March	April	March

Kankan	2010	2011	2012	2013	2014	2016	2017
Average of the minima	15.6	13.1	14.0	14.4	15.9	16.7	17.6
Least hot month	January	December	January	January	December	January	January

Table 47: Changes in Rainfall (mm) in Kankan & Boké stations

Station	2010	2011	2012	2013	2014	2015	2016
Boke	2,404	1,811	2,820	2,564	2,049	2,525	2,296
Kankan	1,185	1,143	1,427	1,233	1,142	1,335	1,365

Table 48: Changes in the Number of Rainy Days in Boké and Kankan

Station	2010	2011	2012	2013	2014	2015	2016
Boke	110	66	146	132	121	89	114
Kankan	100	95	105	92	91	110	113

Table 49: Prevailing Wind Speed in Boké and Kankan Stations

Regions	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Boke	4.8	4.7	5.0	5.3	5.5	5.0	5.7	5.6	5.2	3.6	3.2	4.1	4.8
Kankan	1.4	1.4	1.6	1.5	1.7	1.6	1.4	1.4	1.6	1.6	1.4	1.6	1.6

Table 50: Categories and Characteristics of the Main Protected Areas in Guinea

Category	Name/Status	Characteristics
A. Protected Areas of Terrestrial Ecosystems	1. Badiar Biosphere Reserve	Built as a National Park in 1985, then as a Biosphere Reserve in 2002; covers 146,600 ha and includes: the North Badiar classified forest, classified in 1954, covering 38,200 ha; South Badiar classified forest, classified in 1956, covering 8,600 ha; N'Dama classified forest, classified in 1956, covering 67,000 ha; Buffer Zones 1 and 2 32,800 ha
	2. Upper Niger Biosphere Reserve	Built as a National Park in 1997, then as a Biosphere Reserve in 2002, with a surface area of 752,200 ha and including : The Mafou classified forest in 1954 covering 52,400 ha, the Mafou peripheral zone covering 597,600 ha; the Kouya classified forest in 1952 covering 67,400 ha; the Amana classified forest in 1952 covering 19,800 ha; the Tamba classified forest in 1945 covering 15,000 ha.
	3. Ziama Biosphere Reserve	Built in 1980 on 112,300 ha (ex Ziama classified forest created in 1943).
	4. Nimba Mountains Nature Reserve	Created in 1943, established as a Biosphere Reserve in 1980 on 13,000 hectares, then as a World Heritage Site.
	5. Dubrék Zoological Gardena	Built in 2006 on 150 ha in the classified forest of Kakoulima.
	6. Kankan-Folonigbè Wildlife Reserve	Created in 1926 on 255,000 ha
	7. Bafing - Falémé Transboundary Protected Area: Guinea - Mali	Started in 2006 on 2,666,000 ha (2/3 in Guinea, i.e. 1,777,333 ha) and comprising in Guinea: Kabéla classified forest, built in 1955 on 3,920 ha; Dokoro classified forest, built in 1943 on 7,800 ha; Boula classified forest in 1955 on 27,500 ha; Woundou North classified forest in 1952 on 28,168 ha; Woundou South classified forest in 1952 on 9,400 ha Bakoum classified forest in 1955 on 28,000 ha; Gambia classified forest in 1955 on 15,500 ha; Gombo classified forest in 1966 on 12,580 ha
	8. Transboundary protected area of Rio Cogon, Korubal and Nunez: Guinea-Guinea-Bissau	Started in 2006 on 1,700,000 ha (8,000 ha in Guinea)
	Reserves and classified forests	9. Kounoukan Nature Reserve: Kamalaya Classified Forest established in 1994 on 5,032 ha. 10. Forokonia Nature Reserve (classified forest of the Niger River on 4,770 ha in 1945)

Category	Name/Status	Characteristics
		<p>11. Natural reserve of Pineseli classified in 1945 on 13 000 ha.</p> <p>12. Manden Woula - Warandogoba Nature Reserve in 2006 on 136,000 ha</p> <p>13. Somoria Chimpanzee Conservation Centre established in 1996 (This centre is entirely within the N.H. Niger Park and its status is in the process of being approved).</p> <p>14. Bissikrima Faunal Reserve, in 2006 on 25,000 ha including the Balayan-Souroumba Classified Forest of 1952 on 25,000 ha,</p> <p>15. Fèllo Sélouma Wildlife Sanctuary established in 2006 around the classified forest of Fèllo Sélouma created in 1955.</p> <p>16. Lower Guinea Special Fauna Reserve in 2006 on 200 ha</p> <p>17. Middle Guinea Special Wildlife Reserve in 2006 on 200 ha</p> <p>18. Special Wildlife Reserve of Upper Guinea in 2006 on 200 ha</p> <p>19. Special Wildlife Reserve of Guinea Forest in 2006 on 200 ha</p> <p>20. Gbinia and Banan Wildlife Reserve in 2006 including: Classified forest of Gbinia in 1945 on 6 175 ha: Mount Banan Classified forest in 1952 on 990 ha ;</p> <p>21. Private conservation area of Diwassi - Boula - Baranama in Kankan, granted in 2003 on 104,000 ha.</p>
B. Protected Areas of Coastal, Marine and Island Ecosystems (Wetlands of International Importance / Ramsar Sites)	Ramsar Sites	<p>22. Tristao Island Ramsar Site erected in 1992 on 85 000 ha</p> <p>23. Ramsar site of Alcatraz island erected in 1992 on 01 ha</p> <p>24. Ramsar site of the Konkouré Delta in 1992 on 90 ha</p> <p>25. Rio Pongo Ramsar site, in 1992 on 30,000 ha</p> <p>26. Rio Kapatchez Ramsar site, in 1992 on 20,000 ha</p>
	27. Loos Islands Wildlife Sanctuary	Erected in 1992 on 57, 80 ha and including: RAMSAR White Islands site, in 1992 on 13,40 ha RAMSAR site of the coral islands, in 1992 on 3,75 ha RAMSAR site on the Cabri Island in 1992 on 0,65 ha
Category C. Protected Areas in Freshwater Ecosystems	Wetlands / RAMSAR sites	28. RAMSAR Niger Tinkisso site (Wetland of international importance erected in 2002 on 400,600 ha. of land)
		30. Site RAMSAR Niger - Niandan - Milo Wetland of international importance, erected in 2002 on 1,046,400 ha (including the Baro classified forest, the Kouya classified forest, the Kourani - Ouéléké classified forest).
		31. RAMSAR Niger - Mafou site, (Wetland of International Importance), in 2002 on 1,015,450 ha, (including the classified forests of the Mafou and Amana) 32. RAMSAR Tinkisso site, (Wetland of International Importance), in 2002 on 896,000 ha (including the classified forests of Mount Sincéry, Balayan, Nono, Tamba). 33. RAMSAR Sankarani Site - Fié (Wetland of International Importance), in 2002 on 1,015,200 ha (including part of the Kankan Wildlife Reserve) 34. RAMSAR Niger Source site (Wetland of International Importance), in 2002 on 180,400 ha included in the classified Forokonia forest of 470,700 ha. 35. RAMSAR Gambia site- Koulountou site (Wetland of International Importance), in 2005 on 281, 400 ha 36. RAMSAR Gambia - Oundou - Liti (Wetland of International Importance) site, in 2005 on 527,400 ha
	Wetlands	<p>37. Kinkon Falls wetland in 2006: classified forest of the Kinkon Falls on 320 ha.</p> <p>38. Wetland of the Grandes Chutes, in 1944 on 13,500 ha.</p> <p>39. Garafiri Dam wetland erected in 2006 (area to be defined)</p> <p>Tinkisso Falls wetland: Tinkisso classified forest, in 1945 out of 1,100. ha</p>

Table 51: Guinea's Basic Socio-demographic Data

Basic Data	
Population (ranking: 84 th)	10,909,896 inhabitants (2017)
Population growth	1.210 % / year
Surface area	245,857 km ²
Density	44.37 inhabitants / km ²
GDP (ranking: 153 rd)	USD 6.699 billion (2015)

Basic Data	
GDP/inhabitant (ranking)	USD 531 (2015)
GDP growth	0.10 % / year (2015)
Life expectancy (ranking)	58.73 years (2014)
Birth rate	36.87 ‰ (2014)
Fertility rate	5.01 children/women (2014)
Mortality rate (ranking)	9.94 ‰ (2014)
Infant mortality rate (ranking)	61.00‰ (2015)
Literacy rate	45.25 % (2015)
HDI (ranking: 185th)	0.414 / 1 (2015)
Majority ethnic groups	Peul, Malinké, & Soussou

Source: PopulationData.net.

Table 52: Education and Literacy Indicators by Gender

	1996	2003	2007	2012	2014
Literacy Rate	25.4%	28.3%	34.5%	34.0%	32.0 %

Source: Statistical Yearbook 2016 INS

Education Statistics	2011	2012	2013	2014	2015	2016
Pre-school Gross Enrolment Rate Overall	nd	10.7	11.8	12.5	8.4	13.1
Boys		10.5	11.6	12.2	8.2	13.0
Girls		10.9	11.9	12.7	8.6	13.3
Gross enrolment ratio Primary Overall	78.3	80.0	81.0	82.1	82.9	78.5
Boys	86.9	88.4	89.5	90.2	87.3	93.4
Girls	73.0	73.5	74.5	75.5	70.6	70.2
CP1 enrollment rate	83.0	84.0	90.3	87.5	80.3	98.9
Primary school completion rate	58.0	59.0	66.6	59.6	58.9	59.4
Number of students Elementary	1,536,722	1,599,839	1,666,156	1,729,630	1,665,572	1,776,560
□ Including boys	700,787	725,543	756,364	786,925	738,887	793,658
Number of teachers Elementary	34,861	36,731	37, 687	37,938	35,984	37, 680
□ Including women	10,183	10,903	11,305	11,385	10 776	11 528
Pupil/teacher ratio Elementary	44.1	43.6	44.2	45.6	46.3	47.1
Number of Primary Schools	8,024	8,313	8,475	8,829	9,256	9,559
Gross Enrollment Rate High school Overall	26	45	44	30	28	28
Boys	36	57	57	42	38	39
Girls	18	33	33	20	20	19
Secondary School Completion rate	27 25			10.3	20.3	29.5
No. of students Secondary School	611,874	635,692	660,441	689,409	639,478	673,633
□ Including girls	231,713	240,582	252,518	267,504	248,255	258,871
No. Sec. Sch. teachers 20,690	17,926	19,880		21,596	25,747	26,683
□ Including women	949	1,091	1,166	1,230	1,038	1,121
No. Of Sec. schools	1,130	1,253	1,341	1,443	1,497	1,574

Education Statistics	2011	2012	2013	2014	2015	2016
Pre-school Gross Enrolment Rate Overall	nd	10.7	11.8	12.5	8.4	13.1
No. Students for 100,000 897	913	794 inhabitants		938	965	nd
No . of students	98 528	103,192	92,377	98,750	105,350	nd
□ Including women	24,193	26,656	23,897	28,064	29,962	nd

Source: Statistical Yearbook Ministry of National Education and Literacy

Annex 3: Screening Form

Project title:.....

Sector:.....

Location: Region:...../ Department:.....

Rural community:...../ Village:.....

Municipality:..... / Neighbourhood:.....
.....

(Delete as appropriate)

Responsables (contact persons):

(1).....

(2).....

Person responsible for completing this form:

First Name and Surname:..... Profession:.....
.....

Telephone :..... E-mail :.....

Date:..... **Signatures:**.....

PART A: Brief Project Description

Information on the type and dimensions of the project:

Information on all activities to be carried out:

<i>Site preparation phases</i>	<i>Construction/Rehabilitation phases</i>

Information on the operation of the facility, including support activities and resources needed to operate it (roads, drainage sites, water supply, energy requirements, human resources, etc.) *Describe in a separate note if necessary.*

.....
.....
.....
.....

PART B: Identification of environmental and social impacts and consultations

Environmental and social concerns	yes	no	Remarks
Natural resources			
1. Will the project require large volumes of building materials from local natural resources (sand, gravel, laterite, water, timber, etc.)?			

Environmental and social concerns	yes	no	Remarks
2. Will the project require significant land clearing?			
3. Can the project cause fluctuations in groundwater levels or river flow?			
4. Can the project lead to a qualitative and quantitative decrease in natural resources (water, timber, poaching, logging, mining, etc.)?			
Bio-diversity			
5. Is the project likely to cause effects on rare, vulnerable and/or economically, ecologically, culturally or economically important species?			
6. Are there any areas of environmental sensitivity that could be adversely affected by the project? (forest, wetlands, lakes, rivers, seasonally flooded areas...)			
Protected areas			
7. If the project is close to a protected area (national park, reserve, classified forest, world heritage site, etc.), could it negatively affect its ecology? (e.g. interference with bird flights, mammal migrations, ...)			
Geology and soils			
8. Are there geologically unstable areas or soils susceptible to severe degradation (erosion, landslides, collapse)?			
9. Are there areas at risk of salinisation?			
Landscape / aesthetics			
10. Would the project have an adverse effect on the aesthetic value of the landscape?			
Historical, archaeological or cultural sites			
11. Could the project change one or more historical, archaeological or cultural sites (through excavations, visitation, etc.)?			
Loss of assets, goods and services			
12. Will the project trigger temporary or permanent loss of crops, agricultural land, pasture, fruit trees, equipment (attic, toilets, kitchens...), etc.?			
Pollution and nuisances			
13. Could the project cause a high level of noise?			
14. Is there a risk that the project may generate solid and liquid waste? If "yes", recommend a plan for their collection and disposal with appropriate equipment.			
15. Could the project affect the quality of surface water, groundwater and drinking water sources?			
16. Is the project likely to affect the atmosphere (dust, various gases)?			
17. Does the project involve the use of equipment containing PCBs (polychlorinated biphenyls) or Persistent Organic Pollutants (POPs)? If Yes, indicate the measures taken to comply with the relevant regulations.			
Bio-medical waste			
18. Does the project risk generating biomedical waste? If yes, describe the measures envisaged for their management (see the <i>Biomedical waste management plan</i>).			
Social inequalities, Conflicts, Gender			
19. Can the project lead to an increase in social inequalities?			
20. Can the project lead to incompatible uses or social conflicts between different users?			
21. Does the project disadvantage the integration of women and other vulnerable groups?			
Health, Safety			
22. Can the workers or population be at risk of accidents due to the project?			

Environmental and social concerns		yes	no	Remarks
23. Can the project cause health hazards to workers or the population?				
24. Can the project lead to an increase in vector-borne diseases?				
Social environment	Can the project lead to total or partial loss of assets (crops, farmland, buildings, etc.)?			
	Can the project lead to an increase in social inequalities?			
	Can the project lead to incompatible uses or social conflicts between the different users and landowners (sacred places, traditional sites)?			
	Can the project lead to labour displacement (no recruitment on site)?			
Socio-educational and health facilities	Can the project negatively affect the functioning of the surrounding socio-educational and health infrastructures?			
Cultural heritage	Is the project likely to affect important cultural, archaeological or historical sites?			
	Does the project beneficiary not have a mechanism for the management, operation and maintenance of the project?			

PART C:

Mitigation Measures

Using the Checklist on Impacts and Mitigation Measures (document provided separately), briefly describe the mitigation or enhancement measures to be taken towards the project's implementation.

PART D:

Project Classification and Environmental Work

No environmental work (Simple mitigation measures)

Category 2: Initial Environmental Analysis (IEA)

Category 1: In-depth Environmental and Social Impact Assessment;

☐

☐

☐

Social work required

☐ No social study to be conduct

☐ **SRP**

☐ RAP

☐

☐

☐

Annex 4: Environmental and Social Clauses

These clauses are intended to help those responsible for the drafting of the bidding documents and works implementation contracts (technical specifications), so that they can incorporate into these documents specifications that optimise the protection of the environment and the socio-economic environment. The clauses are specific to all site activities that may be a source of environmental and social nuisance. They must be appended to the bidding documents or works implementation contract documents of which they are an integral part.

Preliminary provisions for works implementation

Compliance with national laws and regulations

The Contracting Authority and its sub-contractors must know, respect and apply the laws and regulations in force in the country on the environment, solid and liquid waste disposal, discharge and noise standards, working hours, etc.; take all appropriate measures to minimise damage to the environment; assume responsibility for any claim related to the non-respect of the environment.

Permits and authorisations prior to works

Any works carried out must be subject to a prior information and administrative authorisation procedure. Before commencing the works, the Contracting Authority must obtain all the necessary permits for the implementation of the works provided for in the road project contract: permits issued by local authorities, forestry departments (in case of deforestation, pruning, etc.), mining departments (in case of quarries and borrow pits), water services (in case public water points are used), labour inspectorate, network managers, etc. Prior to works commencement, the Contracting Authority shall consult with local residents with whom he can make arrangements to facilitate the progress of the works.

Commencement of works meeting

Prior to the commencement of works, the Contracting Authority and the Prime Contractor, under the supervision of the Project Owner, must organise meetings with the authorities, representatives of the populations located in the project area and the relevant technical services, to inform them of the consistency of the works to be carried out and their duration, the routes involved and the locations likely to be affected. The meeting will also enable the Project Owner to collect the opinions of the populations, raise their awareness of the environmental and social issues and of their relations with the workers.

Site preparation and release

The Contracting Authority must inform the populations concerned before any activity of destruction of fields, orchards, market gardeners required within the framework of the project. The release of the right-of-way must be done within a fixed timeframe in agreement with the affected populations and the Project Owner. Before installation and works commencement, the Contracting Authority must ensure that the compensation is actually paid to the beneficiaries by the Project Owner.

Identification of Utilities Networks

Before the commencement of the works, the Contracting Authority must draw up a procedure for locating the utilities' networks (drinking water, electricity, telephone, sewer, etc.) on a plan, which will be formalised by Minutes signed by all parties (Contracting Authority, Project Owner, Sub-Contractor).

Release of the Public and Private Domains

The Contracting Authority must be aware that the public utility perimeter related to the operation is the perimeter likely to be affected by the works. Works may only begin in the areas concerned by private rights-of-way when these are released following an acquisition procedure.

Environmental and Social Management Programme

The Contracting Authority must draw up and submit a detailed environmental and social management programme of the site for approval by the Project Owner which includes:

- (i) a land use plan showing the location of the base camp and the different areas of the site according to the project components, the planned locations and a description of the facilities;
- (ii) a waste management plan of the site indicating the types of waste, the type of collection envisaged, the place of storage, the method and place of disposal;
- (iii) the public information and awareness programme specifying the targets, the themes and the chosen method of consultation;
- (iv) an accident management and health protection plan specifying the major-accident hazards which could endanger the safety or health of personnel and/or the public and the safety and/or health protection measures to be applied within the framework of an emergency plan.

The Contracting Authority must also draw up and submit a site environmental protection plan which includes all site protection measures for the approval of the Project Owner: protection of fuel, lubricant and bitumen storage tanks to contain leaks; hydro-carbon separators in the drainage systems associated with washing, maintenance and refuelling facilities for vehicles and machinery, and kitchen waste water evacuation facilities; description of the strategies to prevent and reduce pollution, fires and road accidents; sanitary infrastructure and access for the population in case of an emergency; site regulations on environmental protection and safety; provisional site development plan at the end of the works.

The environmental and social management programme will also include: the organisation chart of the staff assigned to environmental management with an indication of the person in charge of the Health/Safety/Environmental management of the project; a description of the methods for reducing negative impacts; the management and rehabilitation plan of the borrow pits and quarries; the water supply and management and sanitation plan; and, a list of agreements made with the owners and current users of the private sites.

Site Set Up and Preparation

Location Standards

The Contracting Authority shall construct its temporary site facilities in a manner that it is less damaging to the environment, preferably in already cleared or disturbed areas where such sites exist, or on sites that will be reused in a later phase for other purposes. The Contracting Authority shall strictly prohibit the setting up of a base camp within a protected area.

Display of internal regulations and staff awareness

The Contracting Authority must display the internal rules and regulations in a visible place in the various facilities of the base camp that specifically prescribe: respect for local customs and habits; protection against STIs/HIV/AIDS; hygiene and safety measures. The Contracting Authority must sensitise its staff to respect the customs and habits of the populations in the area where the works are implemented and on the risks of STIs and HIV/AIDS.

Employment of local labour

The Contracting Authority is required to hire (apart from his technical management staff) as much labour as possible within the area where the works are implemented. If qualified staff cannot be found on site, it is permitted to hire labour outside the work area.

Respect of working hours

The Contracting Authority shall ensure that working hours are in compliance with the applicable national laws and regulations. Any exemption is subject to the approval of the Project Owner. As far as possible, (unless an exception is granted by the Prime Contractor), the Contracting Authority shall avoid implementing the works during spare time, Sundays and public holidays.

Protection of site personnel

The Contracting Authority shall provide site personnel with proper works clothing that complies with the regulations and are in good condition, as well as all protective and safety accessories specific to their activities (helmets, boots, belts, masks, gloves, goggles, etc.). The Contracting Authority must ensure that protective equipment is scrupulously worn on site. A permanent check must be conducted to this effect and, in the event of non-compliance, coercive measures (warning, layoff, dismissal) must be applied to the staff concerned.

Health, Safety and Environment Officer

The Contracting Authority shall appoint a Health/Safety/Environment Officer who will ensure that the rules of hygiene, safety and environmental protection are strictly followed by all and at all levels of works implementation, for both the workers and the population, including other people in contact with the site. The Contracting Authority shall set up a routine and emergency medical service at the base camp, suitable for its staff. The Contracting Authority shall prohibit public access to the works site, protect it with beacons and signs, indicate the various access points and take all measures related to orderliness and safety to prevent accidents.

Designation of on-call staff

The Contracting Authority must ensure the custody, surveillance and security of its site, including when the Contracting Authority is not present on site. Throughout the works duration, the Contracting Authority is required to have staff on-call, outside working hours, every day without exception (Saturday, Sunday, public holidays), day and night, to deal with any incident and/or accident likely to occur in connection with the works.

Measures against traffic obstructions

The Contracting Authority shall avoid obstructing public access. He shall maintain traffic and access for local residents at all times during the works. The Contracting Authority must ensure that no excavation or trench is left open at night without adequate signage accepted by the Prime Contractor. The Contracting Authority shall ensure that temporary deviations allow safe traffic.

Site demobilisation and redevelopment

General rules

When the site is released, the Contracting Authority shall clean up the premises making it suitable for immediate use. It cannot be released from its commitments and responsibility concerning their use without having formally declared that they are in good condition.

The Contracting Authority shall carry out all the necessary adjustments to restore the premises. It is required to fold up all its equipment and materials and shall not abandon them on the site or the surrounding area. Once the works have been completed, the Contracting Authority shall:

- (i) remove temporary buildings, equipment, solid and liquid waste, excess materials, fences, etc.;
- (ii) rectify drainage defects and back-fill all excavated areas;
- (iii) plant trees in the areas originally deforested with appropriate species, in collaboration with the local forestry services;
- (iv) protect structures that have remained dangerous (wells, open trenches, slopes, projections, etc.);
- (v) make functional pavements, gutters, sidewalks, ramps and other works provided to the public service;
- (vi) decontaminate contaminated soils (contaminated areas must be removed and backfilled with sand); and
- (vii) clean up and destroy sump pits.

If it is in the interest of the Project Owners or the local authorities to recover the fixed facilities for future use, the Contracting Authority must transfer them without compensation at the time of demobilisation. Permanent installations which have been damaged must be repaired by the Contracting Authority and restored to the condition in which they were prior to the commencement of works. Access roads shall be restored to their original state. Wherever the soil has been compacted (works areas, traffic lanes, etc.), the Contracting Authority shall scarify the soil to a depth of at least 15 cm to facilitate the regeneration of vegetation. Concrete coverings, paving stones and slabs should be removed and taken to authorised disposal sites and the sites covered with soil.

If the Contracting Authority defaults to carry out the rehabilitation works, they will be carried out by a company of the Project Owner's choice, in collaboration with the related services and at the expense of the defaulting party. After all the equipment has been removed, a report stating that the site has been restored shall be drawn up and attached to the acceptance report of the works. Failure to rehabilitate the site shall result in refusal to accept the works. In this case, the percentage of the "site mobilisation" amount which has not yet been released will be withheld to ensure that the site is demobilised.

Protection of unstable areas

When dismantling structures in unstable environments, the Contracting Authority shall take the following precautions so as not to accentuate the instability of the soil: (i) avoid all heavy traffic and overloading in the zone of instability; (ii) preserve the vegetation cover as much as possible or reconstitute it by using appropriate local species in case of risk of erosion.

Development of quarries and temporary borrow pit sites

The Contracting Authority shall redevelop the quarries and borrow pit sites in accordance with the options to be defined in conjunction with the Prime Contractor and the local populations: (i) land reclamation and restoration of vegetation cover (trees, shrubs, grass or crops); (ii) infilling (earth or stones) and restoration of the vegetation cover; (iii) development of water bodies (ponds, basins) for local communities or animals; (iv) recreational areas; ecotourism, among others.

Management of petroleum products and other contaminants

The Contracting Authority shall clean the works or storage area where petroleum products and other contaminants have been handled and/or used.

Monitoring of the Implementation of environmental and social clauses

The monitoring of the respect and effectiveness of the implementation of the environmental and social clauses by the Contracting Authority shall be the responsibility of the Prime Contractor, whose team must include an environmental specialist who is an integral part of the works supervision mission.

Notification

The Prime Contractor shall notify the Contracting Authority in writing of all cases of default or non-implementation of the environmental and social measures. The Contracting Authority shall rectify any breach of the requirements duly notified to him by the Prime Contractor. The Contracting Authority shall bear the cost of redoing the works or additional works resulting from non-compliance with the clauses.

Sanctions

In application of the contractual provisions, non-compliance with the environmental and social clauses, duly noted by the Prime Contractor, may be grounds for termination of the contract. The Contracting Authority, who has been terminated for non-application of the environmental and social clauses shall be liable to sanctions up to and including suspension of the right to bid for a period determined by the Project Owner, with a reduction in the price and the retention money withheld.

Works Acceptance

Failure to comply with these clauses exposes the Contracting Authority to the refusal of provisional or final acceptance of the works by the Acceptance Committee. The implementation of each environmental and social measure may be subject to partial acceptance involving the relevant competent services.

Obligations under the guarantee

The obligations of the Contracting Authority remain in force until the final acceptance of the works which will only be acquired once the environmental improvement works provided for in the contract have been implemented.

Specific Environmental and Social Clauses

Works signage

The Contracting Authority must place, prior to setting up the sites and whenever necessary, pre-signals and signals for long-distance sites (exit from quarries or base camps, circuit used by machinery, etc.) in compliance with the applicable laws and regulations.

Earthworks Measures

The Contracting Authority shall keep stripping, clearing, backfilling and levelling the works areas to a strict minimum in order to conform to the natural topography and prevent erosion. After stripping the top-soil, the Contracting Authority shall preserve the top-soil and use it to redevelop slopes and other disturbed surfaces. The Contracting Authority shall place the excavated soil that has not been reused in storage areas if they are to be used later; otherwise, the Contracting Authority shall transport them to previously authorised back-fill sites.

Measures on the transportation and storage of materials

During the implementation of the works, the Contracting Authority shall (i) limit the speed of vehicles on the site by installing traffic signs and flag bearers; (ii) regularly water the roads in inhabited areas (in the case of earth roads); (iii) provide for diversions through existing tracks and roads where possible. In residential areas, the Contracting Authority shall establish the schedule and route of heavy vehicles to be driven outside the site so as to reduce nuisances (noise, dust and traffic congestion) and take it to the Prime Contractor for approval.

To ensure traffic order and safety on the roads, sand, cement and other fine materials must be hermetically sealed during transport to prevent dust and spillage. Materials containing fine particles must be covered with a tarpaulin that is securely fastened.

The Contracting Authority must take special protection (nets, tarpaulins) against the risk of projections, fumes and falling objects.

The Contracting Authority may set up secondary areas to park machines which are not allowed to park on public roads outside working hours and the site right-of-way. These areas may also serve as a space for welding, assembly, small machining and small maintenance work. These areas may not store hydrocarbons.

Any storage of any kind whatsoever is strictly forbidden in the immediate environment, outside of the site rights-of-way and predefined areas.

Measures for the circulation of construction machinery

Only strictly essential materials are tolerated on the site. It is forbidden to use construction site machinery outside the accesses, designated passageways and work areas.

The Contracting Authority shall ensure that the speed limit for all its vehicles on the public highway is respected, with a maximum of 60 km/h in the open countryside and 40 km/h in built-up areas and⁸

when crossing villages. Drivers exceeding these limits must be subject to disciplinary action, including dismissal. The installation of speed bumps at the entrances to built-up areas shall be recommended.

The Contracting Authority's vehicles shall in all circumstances comply with the requirements of the Highway Code in force, particularly with regard to the permissible laden weight of the vehicles. The Contracting Authority shall, in dry periods and depending on the availability of water, regularly water the tracks used by his transport vehicles to avoid dust, particularly in inhabited areas.

Measures for the transportation and storage of petroleum products and contaminants

The Contracting Authority shall transport petroleum products, lubricants and other hazardous materials in a safe manner, in watertight containers on which the name of the product is clearly labelled. Delivery must be made by tank trucks that comply with the regulations in force and drivers must be made aware of the damage in case of an accident. Decanting into the storage tanks must be carried out by qualified personnel. The storage tanks must be watertight and placed on protected surfaces with a system to protect against spillage of product.

The Contracting Authority shall install his fuel, lubricant and petroleum product storage facilities at a distance of at least 200 m from water bodies and watercourses. Storage locations must be located outside any flood-prone and residential areas. Storage areas should be clearly identified to avoid collisions between construction vehicles and petroleum product tanks. The Contracting Authority shall protect petroleum product storage tanks and filling equipment with a spill container to retain the contents in case of accidental spills. All tanks must be closed when not in use.

The Contracting Authority shall inform and sensitize his personnel (i) as to the specific instructions to be followed in order to avoid any risk of accidental spills when handling and using petroleum products and (ii) on the response measures to be put in place in the event of a disaster in order to avoid any accidental spills.

Measures in the event of an accidental spill of petroleum products

The Contracting Authority must prepare an emergency plan in case of accidental spillage of contaminants and submit it to the Prime Contractor before works commencement. The measures on fighting and controlling contaminant spills on site must be clearly detailed and the workers must be aware of them and be able to implement them should an accident occur. The Contracting Authority shall set up on site: (i) spill control equipment (absorbents such as peat moss, shovels, pumps, machinery, containers, gloves, insulation, etc.); (ii) communication equipment (radio transmitter, telephone, etc.); (iii) safety equipment (signs, etc.).

Protection of sacred sites and archaeological sites

The Contracting Authority shall take all necessary steps to respect and not constitute an obstacle to cultural and religious sites (cemeteries, sacred sites, etc.) within the vicinity of the works. Therefore, it must first check their typology and location before the commencement of works. If, in the course of the works, remains of cultural, historical or archaeological interest are discovered, the Contracting Authority shall follow the following procedure: (i) stop works in the area concerned; (ii) immediately notify the Prime Contractor who shall take the necessary steps to protect the site from destruction; a protective perimeter shall be set up and marked on the site and no activities shall take place there; (iii) refrain from removing and moving the objects and remains. Works must be suspended within the protective perimeter until the national body responsible for historic and archaeological sites gives permission for works to continue.

Liquid waste management

Offices and houses shall be provided with sufficient sanitary facilities (latrines, septic tanks, washbasins and showers). The Contracting Authority shall comply with the sanitary regulations in force. The sanitary facilities shall be set up in agreement with the Prime Contractor. The Contracting Authority is prohibited from discharging liquid effluents which may cause stagnation and inconvenience to the neighbourhood, or pollution of surface or underground water. The Contracting Authority must set up an appropriate autonomous sanitation system (watertight or septic tank, etc.). The Contracting Authority shall avoid any spills or discharge of waste water, pit emptying water, sludge, hydrocarbons, and pollutants of any kind, into surface or ground water, into sewers, drainage ditches or into the sea. The discharge and emptying points shall be reported to the Contracting Authority by the Prime Contractor.

Solid waste management

The Contracting Authority shall deposit household waste in watertight bins which must be emptied periodically. In the event of evacuation by trucks from the site, the skips must be watertight so as to prevent any waste from escaping. For hygienic reasons, and in order not to attract vectors, daily collection is recommended, especially during hot periods. The Contracting Authority shall dispose of or recycle waste in an environmentally sound manner. The Contracting Authority shall transport the waste, if possible, to existing disposal sites.

Protection against noise pollution

The Contracting Authority shall limit noise from the site which may be seriously annoying to local residents, either due to excessively long duration or due to its extension outside normal working hours.

Prevention against STIs/HIV/AIDS and work-related diseases

The Contracting Authority shall inform and sensitise its staff on the risks related to STIs/HIV/AIDS. He must make condoms available to staff against STIs/HIV/AIDS. The Contracting Authority shall inform and educate its staff on occupational health and safety. The Contracting Authority shall protect the health of workers and that of the local population by taking appropriate measures against other diseases related to the works and to the local environment: respiratory diseases due to the large volume of dust and gas emitted during the works; malaria, gastroenteritis and other diarrhoeal diseases due to the high proliferation of mosquitoes, climate change and the quality of water and food consumed; and diseases endemic to the area.

The Contracting Authority shall take preventive measures against the risk of diseases by doing the following: (i) enforce the wearing of masks, uniforms and other appropriate footwear; and (ii) build infirmaries systematically and provide basic emergency drugs free of charge to site personnel.

Public and emergency services

The Contracting Authority shall imperatively maintain access to public and emergency services in all places. When a road is blocked, the Contracting Authority, in collaboration with the Prime Contractor shall study the arrangements for maintaining access for fire and ambulance vehicles.

Site logbook

The Contracting Authority shall maintain a site log in which shall be recorded any claims, failures or incidents with a significant impact on the environment or any incident with the public. The site log is unique for the worksite and notes must be written in ink. The Contracting Authority shall inform the

public in general, and the residents in particular, of the existence of this logbook, indicating where it can be consulted.

Maintenance of site machinery and equipment

The Contracting Authority shall comply with the maintenance standards on site equipment and vehicles and shall refuel and lubricate in a location designated for this purpose. On the site, a supply of absorbent materials and insulation (cushions, sheets, socks and peat fibre, etc.) as well as clearly identified watertight containers, designed to collect oil residues and waste, must be present. The Contracting Authority shall carry out, under constant supervision, any handling of fuel, oil or other contaminants, including decanting, in order to avoid spills. The Contracting Authority shall collect, treat or recycle all petroleum residues, used oils and waste produced during the maintenance or repair of machinery. He is prohibited from discharging them into the environment or on the construction site. The Contracting Authority shall empty the waste oil into leak-proof drums and preserve the waste oil to be handed to the supplier (recycling) or to the local population for other uses. Used spare parts must be sent to the public waste disposal site.

Washing and maintenance areas for machinery must be concreted and provided with an oil and grease recovery structure, with a slope oriented so as to prevent the flow of polluting products towards unpaved floors. Concrete mixers and equipment used for transporting and placing concrete must be washed in areas provided for this purpose.

Dust control

The Contracting Authority shall choose the location of crushers and similar equipment according to the noise and dust they produce. The wearing of goggles and dust masks shall be mandatory.

Environmental measures to be included in price schedules

Environmental and social regulations
Preparation and release of rights-of-way → <i>Information for local populations</i>
Locate utility networks
On-site installation → <i>Drinking water, sanitary and safety facilities</i>
Personal protective equipment → <i>Clothes, boots, gloves, masks, etc.</i> → <i>First aid box</i> → <i>Medical follow-up of staff</i>
Site signage (signposting, etc.)
Erosion prevention and stabilisation of sensitive areas of the site
Protective measures when transporting equipment and materials
Measures for the transportation and storage of petroleum products → <i>Watertight storage tanks on protected surfaces with retention basin</i> → <i>Accidental spill response equipment (absorbents, peat moss, shovels, containers, gloves, socks, etc.)</i> → <i>Communication equipment (walkie-talkie, mobile phone, etc.)</i>
Existing sanitation works → <i>Remove plant and solid products obstructing the works</i> → <i>Maintenance of ditches</i> → <i>Stabilisation of pits and shoulders</i>
Raising workers' awareness → <i>Raising workers' awareness of environmental protection</i> → <i>Raising awareness of the respect of the habits and customs of the local area</i> → <i>Raising awareness of occupational health and safety</i> → <i>Sensitisation on STIs</i>
Site water supply

Environmental and social regulations	
Site wastewater and waste management	<ul style="list-style-type: none"> → <i>Covering and waterproofing of storage areas</i> → <i>Provision of waste receptacles</i> → <i>Development of equipment washing and maintenance areas</i> → <i>Acquisition of used oil storage drums</i>
Site demobilisation and redevelopment	<ul style="list-style-type: none"> → <i>Restoration of the premises</i> → <i>Remove temporary flaps, equipment, materials and other related infrastructure</i> → <i>Correct drainage defects</i> → <i>Level all excavated areas</i> → <i>Clean and eliminate all forms of pollution</i>
Communication and awareness-raising campaigns, including the erection of road signs	

Annex 5: Consultation Lists

LIST OF PERSONS MET

03	Mohamed Seinkoun GASSAMA	Director General at the Presidency of the Republic Development and Administration Authority of SEZs)	+224 620.59.64.59 msgassama@adazguinee.com
04	Fatima CAMARA	Director of Operations of SEZ	+224 622.99.82.44 FCAMARA@ADAZ GUINEE.COM
05	Moussa Dabo	Deputy Managing Director of SEZ	+224 620.60.88.35 Moussa.dabo@adazguinee.com
07	Alseny SYLLA	Secretary General (MININD)	(+224)664 21.86.07 (+224)622.90.39.47 alsenysylla518@gmail.com
08	Yeke GOUMOU	Industrial and Quality Advisor (MININD)	(+224) 628.08.73.14 (+224) 664.40.34.17 ykgomou@gmail.com
09	Mamadou KAMARA	Head of Agriculture Unit Ministry of Planning and Economic Development	(+224)623.28.95.89
10	Dr Ahmadou GUEYE	Senior Advisor Ministry of Public Works	+(224) 664.59.70.63 ahgueye@yahoo.com
11	M. Moussa KEITA	Regional Director of Agriculture Boké Administrative Region	(224) 621-92-29-14 (224) 657-33-28-03 Moussakei54@gmail.com
12	M. Boubacar BARRY	Civil Engineer Head of Infrastructure Division at MININD	(224) 664-40-50-77 (224) 628-10-32-12 Boubabsidi25@gmail.com
13	El-Hadj Baba DRAME	I.S.F.C Director of Cabinet Governorate of Boké Administrative Region	(224) 664-72-37-33 (224) 628-56-46-47 drameelhadjbaba@yahoo.fr
14	El. Ousmane DIALLO	Territorial Administrator Political Counsellor Governorate of Boké Administrative Region	(224) 664-57-03-40 (224) 622-57-03-40 (224) 657-57-03-40 (224) 622-77-59-42 Ousmanetelediallo34@gmail.com

List of persons met in Kankan

First Name and SURNAME	Position	Contact
Aziz DIOP	Prefect	
Yaya CONDE	Secretary General in charge of decentralised communities	
Kader CHERIF	Cabinet attache at the Prefecture	
Souleymane CAMARA	Regional Director of Environment, Water and Forestry	
Layali CAMARA	National Director of Water and Forestry	
Abraham Santigui KEITA	National Director of the Forestry Fund	
Mamadou Aliou DIALLO	Deputy National Director of the Guinean Timber Office	
Kerfalla CAMARA	Prefectural Director of Environment, Water and Forestry	
Dr Morodian SANGARE	Director of the Bordo-Kankan Regional Agricultural Research Centre	622 78 22 27
Dr Makan KOUROUMA	Scientific Coordinator of the Bordo-Kankan Regional Agricultural Research Centre	622 76 79 05
Hadja Kouraba SACKO	Regional Director of Social Affairs	

First Name and SURNAME	Position	Contact
Fanta Madi DOUMBOUYA	Regional Director of the Technical Bureau of Rural Engineering	628 14 06 33
Moussa DOUMBOYA	Control Officer of the Technical Bureau of Rural Engineering	628 49 40 93
Moussa KANTE	Head of the Planning Unit of the Technical Bureau of Rural Engineering	622 08 40 76
Mamadi DOUMBOUYA	Head of the Prefectural Unit of the Technical Bureau of Rural Engineering in Siguiri	622 15 25 92
Sitan DIAKITE	President of Benkadi group for the production of shea butter in the Dalako-Kankan neighbourhood	621 88 92 83
Fanta KEITA	Member of the Association of Women Technicians and Technologists (AFTT) in Kankan	623 25 30 25
Hadja Saran KONATE	President of the Konko magni market gardening group in Kankan	622 23 06 37
Alama Sidiki KEITA	Economic Zoo Officer at the Kankan Prefectural Livestock Unit	620 43 33 66
Mohamed KEITA	Prefectural Director for Agriculture-Kankan	622 47 82 34
Bintou Mori KABA	Head of Rural Land Unit	628 94 64 17
Karifa TRAORE	Land Issues Officer	622 10 65 87
Alama CONDE	Dean of Bafèie village - sub prefecture of Moribaya	
Aboubacar CONDE	Inhabitant of Bafèie village - sub prefecture of Moribaya	623 57 92 85
Mamadi TOUNKARA	Inhabitant of Bafèie village - sub prefecture of Moribaya	621 11 92 50

List of persons met in Boké

Firstname and SURNAME	Position	Contact
El Hadj Baba DRAME	Director of Cabinet	628 56 46 47
Ousmane DIALLO	Political adviser	622 57 03 40
Moussa KEITA	Regional Director of Agriculture	621 92 29 16
Ibrahima Djouldé DIALLO	Regional Director BSD Environment	622 90 85 48
Péma TOUPOU	Environment and Sanitation Officer	622 17 81 52
Mohamed Lamine SYLLA	Conservator of Trans-boundary protected areas	622 40 63 7 7
Morlaye KEITA	Prefectural Director for Social Action	628 87 91 64
Mariam COMPO	Director Boké Women's Empowerment Centre	622 17 24 15
Boubacar BAH	Regional Director for Social Action	622 66 90 60
Mark TONAMOU	Head of PV Regional Service	622 75 16 66

Bibliography

Support for the organisation of the Forum on Land Governance Assessment Framework (CAGF) in Guinea (Conakry) EUROPEAID/127054/C/SER/multi; September 2015

Yearbook of Environmental Statistics, Guinea, National Institute of Statistics 2016

World Bank, 2018, The World Bank in Guinea, Guinea – Overview, www.banquemondiale.org/fr/country/guinea/overview.

Environment and Social Management Framework (ESMF) Guinea Integrated Agricultural Development Project (PDAIG), Republic of Guinea, World Bank, March 2012 - March 2018

Environment and Social Management Framework (ESMF), Rural Accessibility Emergency Project (PUAR), Republic of Guinea, World Bank, July 2017

Environment and Social Management Framework (ESMF), West Africa Agricultural Productivity Programme (WAAPP) Guinea, World Bank, March 2016.

Environment and Social Management Framework (ESMF) Forest and Economic Diversification Project (PFDE)
Republic of Congo, World Bank, March 2012

FAO, 2018, FAOSTAT – Guinea, www.fao.org/faostat/

Guinea's National Contribution to the Fight against Climate Change under the Paris Agreement, Republic of Guinea, 2014

National Institute of Statistics, 2016, Statistical Yearbook, Ministry of Planning and International Cooperation, Conakry, Guinea.

National Institute of Statistics, 2014, Third General Census of Population and Housing (RGPH-3), Central Census Bureau, Ministry of Planning and International Cooperation, Conakry, Guinea.

National Institute of Statistics, 2012, Demographic and Health Survey and Multiple Indicator Cluster Surveys (EDS–MICS), Ministry of Planning and International Cooperation, Conakry, Guinea.

National Institute of Statistics, 2012, Light Poverty Assessment Survey, ELEM 2012, Ministry of Planning and International Cooperation, Conakry, Guinea.

Invest in Guinea, Agriculture, <http://www.invest.gv.gn/document/note-sectorielle-agriculture>. Lancet, 2015, Volume 385, Issue 9980.

Ministry of Health, 2015, National Health Development Plan (PNDS) (2015-2024).

Ministry of Health/UNICEF, 2014, Nutrition Survey using SMART Methodology, Nutrition Service, Conakry, Guinea.

Country Profile, Republic of Guinea, PNDES 2016- 2020, November 2017.

Overall Narrative, Republic of Guinea, PNDES 2016- 2020, Consultative Group - Paris, November 2017.

National Health Development Plan (PNDS) 2015-2024, Republic of Guinea, Ministry of Health, March 2015.

National Action Plan for Adaptation to Climate Change, Republic of Guinea Conakry, July 2007

Vision 2040 for an emerging and prosperous Guinea, Republic of Guinea, Ministry of Planning and International Cooperation.

Accelerated Program of Food and Nutritional Security, and Sustainable Agricultural Development, 2016-2020, Republic of Guinea, Ministry of Planning and International Cooperation, Final Report, January 2017.

Multiple Indicator Cluster Survey MICS 2016, Guinea, Final Report "Monitoring the situation of children and women", Republic of Guinea, National Institute of Statistics, Ministry of Planning and International Cooperation, July 2017.

The Family Farming, Resilience and Markets Project in Upper and Middle Guinea (AgriFARM), Final Project Design Report, January 2018 FIDA, Republic of Guinea

The Togo Agro-Food Processing Zone Project (PTA-TOGO), Strategic Environmental and Social Assessment (SESA) February 2018, AfDB, Republic of Togo

Republic of Guinea, Ministry of Cities and Planning, Operations Manual with Guidelines for Public Utility. Expropriations and Compensation for Land and Natural Resources in Guinea, Republic of Guinea, September 2017

Republic of Guinea, Ministry of Environment, Water and Forestry, National Biodiversity Strategy for the Implementation of the Strategic Plan in Guinea 2011 – 2020 and the Aichi Targets, July 2016

Republic of Guinea, National Environmental Policy, Ministry of Environment, Water and Forestry, August 2011