OKOMU

Responsible tropical agriculture

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS FOR

OKOMU OIL PALM COMPANY PLC

MAIN ESTATE, EXTENSION 1 & 2 CONCESSIONS

(2024-2026)

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1. OVERVIEW AND BACKGROUND

1.1. DESCRIPTION OF LOCATION

The Okomu Oil Palm Company PLC (OOPC) was established in 1976 as a Federal Government pilot project aimed at rehabilitating oil palm production in Nigeria. At inception, the pilot project covered a surveyed area of 15,580 ha of land in the Okomu Forest Reserve located in Ovia South West Local Government Area of Edo State in Nigeria. In 1979, the company was incorporated as a limited liability company, before becoming fully privatized in 1990 as a Public Limited Company (PLC). At this point, the Socfin Group first bought a stake in the company. By 1989, just about 5,000 ha of the land had already been planted with oil palm and major infrastructural developments on site had already begun, including office blocks, staff quarters and a primary school for children of the company staff.

As part of the company's plan for development, it acquired and installed a 1.5 tons/hour palm oil processing facility in 1985 and thus begun processing of FFB into Crude Palm Oil (CPO). The oil palm processing facility with a capacity for 30tons/hour was expanded with additional 30tons/hour mill processing facility, bringing the total palm oil processing mill capacity to 60tons/hour. The new oil mill facility is equipped with a tilting sterilizer and conveyor systems which together enhances processing and eliminates the use of forklifts in the processing of FFB. This system is an improvement of the old one and it is expected to reduce the cost of FFB processing at the mill. OOPC is 66% owned by Socfinaf SA, which is incorporated in Luxembourg and 34% by a diverse range of Nigerian individuals and institutional shareholders, none of whom individually own more than 5% of the share capital. Over the last 10 years, OOPC has consistently posted profits and at present, all Crude Palm Oil production is sold locally in Nigeria.

In the decades since the original 15,580ha block (henceforth 'the **Main Estate'**) was first allocated to OOPC, two extension areas have been acquired by OOPC; a block of land called Extension 1, measuring 6,116ha that is 22km East of Okomu Main Estate on the eastern border of the Okomu National Park and the latest acquisition, called Extension 2, which is 11,416 ha, is situated 120 km away from Okomu Main Estate and bisects the Ovia North East and Uhunmwonde Local Government Areas of the state. As of December 2016, the OOPC operations covered a total of 33,113 ha of land across three separate lease areas. All three lease areas are government owned land but are leased to the company with varying lease periods ranging from 50 to 99 years for the purpose of oil palm and rubber agriculture. Of this total area, 19,060.40ha are covered with oil palm and 7023ha with rubber trees. The High Carbon Stock (HCS) area is 254.50 ha. There is also a total of 2937.81ha of High Conservation Value (HCV) areas within the concessions which consist of Swamps, riparian strips, areas of life trees and forest blocks. The remaining land is occupied by infrastructures such as nurseries, buildings, golf fields, dumpsite, HCV buffer, Military camps, mills, factory, burrow pits, areas of steep slopes etc.

2. ASSESSMENT PROCESS AND METHODS

2.1. Social and Environmental Impact Assessments (SEIA)

Being a going concern, the environmental impacts were extracted from Environmental Impact Assessments, Environmental Audits and Compliance reports for the period of 2012 to 2021 and the Social Impact assessment was conducted in 2017 to ascertain the level of social impact of Okomu's activities on the communities within its footprints.

2.2. High Conservation Value (HCV)

The assessment process for Extension 1 commenced in June 2015 and was completed in December 2015 by Proforest. That of extension 2 started in July 2015 and was completed in November 2015, also by Proforest. The Assessment of HCVs within Okomu Main Estate was conducted by Foremost Development Services Limited and was completed in September 2017. These two assessments guided the compilation of the Management Plan presented in this document.

2.3. Greenhouse Gas (GHG)

The 2020 and 2021 results of GHG emission of our activities was calculated using the PalmGHG Monitoring tool (version 4) and this aided the development of the management of GHG emissions in Okomu especially the of major factors that increase our GHG footprints.

2.4. Land Use Change (LUC)

The LUC for all concessions of Okomu was carried out in September 2017 by Hyperdrange Nigeria Limited with the maps covering 2005, 2007, 2009, 2014 and 2017. Further, in the development of a Remediation and Compensation Plan, Okomu, through Socfin, had an assessment, which further led to computation of LUC results. The result of these assessments informed the management decisions that are contained herein in this report.

2.5. High Carbon Stock (HCS)

The HCS assessment was done in May 2019 at Extension 2 concession by Proforest. This was carried out in proposed development area to identify and map out HCS forests and to provide recommendations for management, monitoring and protection of the HCS forests to ensure that production activities do not negatively impact HCS forest areas. The recommendations are substantiated into this management plan.

3. MANAGEMENT PLANS

This Environmental and Social Management Plan was developed using the information provided in various assessments, review of several monitoring records and consultation with affected stakeholders. This is developed to promote and/or enhance the positive impacts and mitigate the negative impacts. The Management Plan has been separated into 4 components from various assessments.

The team responsible for the development and monitoring of the management plans contained in this report are composed of different departments within the company that their activities are related to the plans.

- Dr. Graham Hefer - Managing Director
- Billy Ghansah - Agricultural Coordinator (Palm)
- Mikle George - HSE Manager
- Arthur Ebenezer - Plantation Manager
- Leonit Shaji - Industrial Coordinator
- Samuel Oseghale - Oil Mill Manager
- Osunbor Ikponmwonsa - Human Resources Manager
- Fidelis Olise - Communication Officer
- Micky Francis - Agricultural Coordinator (Rubber)
- Joseph Baiju - Rubber Plantation Manager
- Tarigan Perdata - Extension 2 Manager
- Peter Akurugo - Extension 1 Manager
- Adekunle Salami - Estate Manager
- Community Liaison Officers
- HSE Representatives
- All employees

3.1. MANAGEMENT PLAN FOR SOCIAL AND ENVIRONMENTAL IMPACTS

CROSS-CUTTING MANAGEMENT PLANS						
Parameters to be monitored	**Proposed enhancement/mitigation measures**	**Location**	**Measurement**	**Frequency**	**Responsibility**	**Timeframe for completion of task (Estimated)**
Air Quality	Lightly spraying of areas susceptible to significant dust generation with water especially during dry season, Preventive Maintenance for vehicles, generator sets and equipment, Zero burning policy and Maintenance of hired vehicles	Areas susceptible to dust generation, Equipment areas	Air Quality	Quarterly	Palm Plantation Manager, HSE Manager	Throughout project life span.
Land Degradation, Erosion or near sensitive habitats.	There will be side pits excavated at intervals to collect soil particles including sediments to avoid sediment load of water bodies, Planting of cover crops (Pureira and Mucuna) on the exposed portions of the land, SOP on planting of slope, Policy on Management of fragile soils.	Sloping land	Physical parameter of water bodies.	Annually, Adhoc	Palm Plantation Manager, HSE Manager	Throughout the project life span.
Geology, Geomorphology and Soils	Erosion Control Measures, Sediment Traps/sandbags alongside roads, use of vetiver grass, Use of red route for high traffic areas, Policy on the management of fragile soil and ensuring soil fertility, SOP on road maintenance	Areas susceptible to soil erosion	Maintained and Upgraded Roads	Annually, Adhoc	Palm Plantation Manager	Throughout project life span.
Groundwater	Waste and Pollution Management Procedure, Groundwater monitoring, Water Management Procedure	All Boreholes	Physical & chemical parameters of water	Quarterly	HSE Manager, All Managers	Throughout project life span.
Surface Water	Waste and Pollution Management Procedure, Surface water monitoring, Maintenance of Forest buffer zones, Water Management Procedure.	All Surface waters	Physical & chemical parameters of water	Quarterly	HSE Manager, All Managers	Throughout project life span.
Habitats (Flora and Fauna)	Zero Burning Policy, Prohibition of hunting, Firewood collection and Farming in conservation areas, Patrols using eco-guard, rehabilitation through planting seedlings, HCV-HCS Management Procedure and HCV-HCS Management plan.	Replanting areas, estates	Monitoring of habitats	Monthly	HSE Manager, Security, workers	Throughout project life span.
			Rapid biodiversity assessment result, Forest integrity assessment.	Annually		

ent Procedure, Establishment 100m – 250m radius to the Oil y effluent lagoons, Scooping effluent lagoon and ns of our consultants from oon.	Estates, Industrial areas	Effluent and effluent monitoring well analysis.	Quarterly	HSE Manager, Estate, Workers	Throughout project life span.
		Waste separation	Daily		
s shall be made available for	Estates, workplaces	Sewage management	Daily	HSE manager, Estate, Workers	Throughout the life span.
safety management system of hazardous machineries and Hazardous materials (e.g. n appropriate containers and Occupational Health and Safety gns posted at hazardous waste	Working areas	Staff Trained in Occupational Health and Safety, Number of Accidents and Illnesses, Patrol Checklist	Daily	All Managers, workers	Throughout project life span.
ate facilities at estates as of Facility Management Plan	Estates	Presence of well-maintained facilities	Annually	Estate Department	Throughout project life span.
Build monitoring wells and ping of sludge from effluent goon	Surface water, groundwater	Physical & chemical parameters of water	Quarterly	Plantation Manager/ HSE Department/Mill Manager	Throughout project life span.
ess, Immunization programs, vention programs, t and other health	Estates	Reduction in Prevalent Ailments, Reduction in Prevalent Infectious diseases	Monthly	Clinic, HSE Manager	Throughout project life span.
zones of about 20-50m along al handling, Use of spill kits, water bodies, Community rterly monitoring, Chemical plan for chemical spill, er shall be placed under the drippings.	Surface water, groundwater	Physical & chemical parameters of water	Quarterly	Plantation Manager / HSE department	Throughout project life span.
zone of up to 50m along river	Surface water,	Physical & chemical	Quarterly	Industrial	Throughout project

				Manager, HSE Manager	
r Application plan, use of ementation of Zero Burning Plan for Reduction of	Planting areas	Analysis of the records of quantity of product applied, compared to the plan, SOP on pruning and zero burning policy	Yearly	Plantation Manager	Throughout planting life span
plan and SOP for controlling	New planting areas	Analysis of the record of the technique applied to the control of pest and diseases.	Annually	Plantation Manager	Lifecycle of new planting
used, Zero burning, Regular odic Monitoring of ambient air rganic fuels, GHG Emission Energy Utilization Plan and	Plantation	GHG emission, Analysis of record of fossil fuel and biomass used	Annually using Palm GHG	Agricultural Coordinator, Oil Mill Manager, HSE Manager	Throughout project life span
practices, installing acoustic uipment shall be maintained in rsonal protective equipment worker to always use them, ill generate disturbing sounds orking hours.	Workplaces	Excess of 90dBA levels	Quarterly measurement and when desirable, Adhoc	HSE department, Industrial Managers	Throughout project life span
		PPE Monitoring	Daily		
nduction given to employees taboos in the cultures of	Estates	Social Values	Yearly	OOPC Management	Throughout project life span
beyond boundaries, install ds (where applicable) along all ry demarcation and plantation	Communities	Number of Displaced persons, boundary pillars monitoring records	Quarterly	OOPC Management	Throughout project life span
es beyond boundaries, install	Communities	Farmland available,	Quarterly	OOPC	Throughout project

d collaboration with and pandemics, Young oil palm eived increase wind speed in	Estates	Prevalent ailments	Monthly	OOPC Management	Throughout project life span
ure and policy	Communities/Stakeholders	Number of projects	Annually	OOPC Management	Throughout project life span
on, Workers receive their full nization.	Estates	Number of workers who receive benefit	Adhoc	OOPC management	Throughout the life span
potential health & safety risks lightenment about the project	Estates, Communities	Records of enlightenment	Adhoc	Company doctor, HSEM, CO	Throughout the life span.
edure, Grievance Management mmunity heads for managing for unskilled labor and , Fire Prevention and ion of Smallholder Schemes	Neighboring communities.	Number of Conflicts	Annually	OOPC Management.	Throughout project life span.
best industry standards and cial safeguards such as Code of Policy, Socfin's Responsible n of Association Policy, Child licable policies, Collaboration t sustainability intiatives	OOPC	Complaints, Grievances	Annually	OOPC management	Throughout project life span
s farmers scheme to establish n communities, No further boundaries, Installation of ds (where applicable) along all oundary demarcation and plantation.	Neighboring communities	Number of registered smallholders, Payments made	Adhoc	Palm plantation	Throughout the project life span.
of the FPIC Agreement with	Neighboring communities	Number of meeting held for review	Annually	CLO, CO	Throughout the project life span.

SPECIFIC ACTION PLANS

C	Medium	HSE Manager	Monthly
	Medium	HSE Manager	Monthly
ard	Medium	HSE Manager	Monthly
ISO 14001:2015 and ISO 45001:2015	High	HSE Manager	2022 and 2023
	High	HSE Manager	As required
orkers	Medium	HSE Manager	Monthly
	Medium	HSE Manager	Monthly
tion	Low	Security	Daily
ders	Low	Clinic	Annually
	Low	Estate	As required
bility certifications for workers and Contractors	Medium	HSE Manager	Annually
pment	Medium	HSE Manager	Daily, Biannually
	Medium	Oil Mill	2022 and 2023

	Monitoring
ement of hunting ban in all the riparian and wetlands. MoU with ONP for joint E within the forest/riparian areas. priate, restore population of RTE y will be conducted annually. nd awareness campaign about the presence of RTE species and the need to nternal employees, workers. ucate the workforce about the status of RTEs.	• Regular monitoring and occasional patrol of riparian forests and wetlands using Eco-guards. • No application of agrochemicals within the forest. • No collection or hunting. • No felling of African grey parrot roost trees.
e of buffer zone of 50 m set around the current extent of swamp forest area. be no production activities in the buffer. uffer where Oil palm trees are already existing, only manual activities will be After the palm trees are old and no longer viable, they will be felled and left to e swamp ecosystem.	• Regular monitoring of the swamp forest areas using Eco-guards. • No application of agrochemicals within the swamp forest buffer zone. • No farming. • No hunting.

and awareness campaign about the presence of swamps and the need to to internal employees, workers. e on areas where no agrochemicals spraying is permitted oard identifying the types of HCV present with clear warning of consequences ting and or encroachment. nitive map of HCV (boundary point of HCV with coordinate position). ol to avoid encroachments pping and record on the spread of key wildlife species on site. onduct rapid survey of the frequency and abundance of wildlife and the new borns (sign of population viability), wildlife using the area as possible e area of HCV. opriate, regenerate swamp forest. es bordering swamp and are found within the water extent, shall be painted ed paint, and caution signboard to discontinue spraying shall be installed on or ee away from each painted tree. orkers to create awareness of the painted trees and caution signboards. ction of the abundance of M. *bracteata* growing in swamps. ol to avoid encroachments pping and record on the spread of key wildlife species on site. d survey of the frequency and abundance of wildlife and the presence of new f population viability), wildlife using the area as possible refugia in the area of	
all rivers and streams. Set-aside buffer of 50m on each side for big rivers	• Regular sampling from rivers and streams

ions of all rivers and streams lantations, Palm trees will be felled and left to be part of the buffer after they no longer viable. ol to avoid encroachments. nitoring tools, such as Forest Integrity Assessment Tool will be harnessed to nsolidate ground conservation on of agrochemicals within 100 metres from rivers and streams and within with notice boards oundary sign of buffer zone that surrounds the area of HCV. nd awareness campaign about the presence of Riparian forest and other HCV l the need to protect them to internal employees, workers, and surrounding . uffer zones signboards showing the type of HCV present including warning. red, improve on the vegetation density along water bodies/ wetlands. map areas prone to erosion and landslides. policies and/or SOP to regulate the use of agro-chemical and waste t. nd awareness campaign on the SOP on the use of agro-chemicals and waste t. effectiveness of mitigation of water pollution every 3 months. ersity assessment will be conducted annually. ssment of the quality of forests ction of the abundance of M. pruriens growing in Riparian forests. n of forest areas that cannot restore naturally to forest areas, like hilly tops th no natural seed bearing trees. sed evaluations of local peoples' views on water quality at minimum twice a efore and after the rainy season). This will be done with the people of Owan, Uhiere, Odigwetue, Odighi and Oke	watersheds and riparian forest areas using Eco-guards. • Avoid application of agrochemicals in riparian vegetation and watershed areas. • No farming. • No burning. • No dumping of trash. • No pollution of water bodies. • No felling of trees/logging. • No cutting of tender trees e.g. sapling, poles. • No fishing. • No hunting

be prepared to address illegal logging in a timely manner whenever this is	
rivers and streams across its length. ignpost to create awareness about the river and the forest areas for medicinal ular patrol around the HCV area. will be permitted. For fire incidences, we will take all necessary actions to he fire. If external, community engagement will be used to address the d Edo state government notified of incident. If internal, internal disciplinary implemented. For farms identified, the owner is invited for a meeting and able time to vacate crops, if annual. This area will be monitored for recurrence pliance and the government will be notified. For any illegal logging, /killing of RTE specie, the National Park (Main Estate & Extension 1) or Forestry (Extension 2) and the Edo state government is alerted nd awareness campaign on the presence of riparian reserve and rivers and the ect them to internal employees, workers, and surrounding communities. OP to regulate the use of agro-chemical and waste management. n the communities in the western side of Extension 2 to agree on how they the natural resources within the concession sustainably that will be consistent eral and State legal and regulatory requirements. n of forest areas that cannot restore naturally to forest areas, like hilly tops th no natural seed-bearing trees.	• Include regular monitoring of buffer zone areas and periodic monitoring of boundaries of al set-aside areas in general operational monitoring systems using Eco-guards. • Regular testing of water samples from rivers and streams that drain the concession to assess pollution levels. • No hunting. • No agrochemical spraying.
ommunities on what activities are allowed within the sacred site management reement drawn between Udo and Okomu clearly establishing access routes f visitation for access to sacred sites. both communities for the identification of the person or persons who will be	• A Simplified HCV monitoring system/protocols in collaboration with the local communities and Eco-guards. • No dumping of trash in the premises.

on the management of the shrine. access to the shrine for the local community based on agreed accessibility oute. reness campaigns related to the protection of shrine and surrounding forest. ife tree by erecting signposts. e, where there is human disturbances.	

3.3. HCS

Management	Monitoring
• Demarcate clearly with signs the boundaries of the HCS forest management area. • No burning during land preparation which should be monitored once or twice a week during land clearing operations. • Engage with communities in the landscape on the concession and sensitize them on the importance of the HCS forest identified • Cooperate with communities to agree on allowable low-intensity collection of NTFPs in the HCS forest • Closing of existing or new roads leading to the HCS forest or have restricted access to prevent illegal activities such as logging, hunting, farming etc. • Establish a co-management committee to develop and monitor permitted community activities in HCS forest management area • Conduct bi-annual monitoring of any changes in size of HCS forest management areas to show zero conversion of the identified HCS forest using remote sensing technics and tools or any appropriate scientific methods.	• Monitoring (once or twice a week) of the boundaries, through the Eco-guards, during the land clearing operation to avoid accidental HCS forest conversion • Monthly monitoring by the Eco-guards through patrol for threats such as logging farming, burning, hunting, trash etc.

3.4. SOIL ANALYSIS

The following proposed management measures are to be used for replanting on slopes:

Slope	Planting design to be adopted
0% to 4%	Planting in a straight-line North –South
>4 to 9%	Planting in panels or planting in contour lines
>9 to 16%	Planting in contour lines with an anti-erosion drains along the contour
>4 to 16%	Use of individual platforms if slope is higher than for the adopted system
>16 to <40%	Planting along contour lines and on terraces
>40%	No clearing and No planting

Fragile soils planting areas will be managed to promote the incorporation of organic matter and mitigate any type of erosion that may arise from planting. In addition, cover crop and other soft grasses will be given room to grow and erosion control measures like use of bumps on road to reduce the speed of runoff water. The policy on management of fragile soil and ensuring soil fertility is implemented.

3.5. CARBON STOCK AND GHG

Below are the mitigation methods that will be employed to reduce Okomu GHG footprints. The GHG will be monitored using the current format of Palm GHG.

EFFICIENCY OF TRUCKS	
	FUEL CONSUMPTION
OBJECTIVE	Reduce fuel consumption of trucks
DESCRIPTION	• Maintenance of road infrastructure to shorten the distance between the plantation and mills and fuel efficiency; • To exercise better control of FFB trucks. • Monitoring of fuel consumption • Encourage more fuel efficient vehicles as replacements • Creation of a mill at Extension 2 to reduce the use of fossil fuel for FFB transport to Main Estate

FOREST RESERVES	
	PLANTATION
OBJECTIVE	Increase carbon stocks through forests
DESCRIPTION	While about 10% of the concessions already has forest areas, OOPC believes that these could be increased through two actions: • Reforestation of required areas in riparian areas which will be extracted from monitoring records and implemented through the HCV-HCS regeneration plan which spans 15 years beginning from 2023 to 2037. • Increased monitoring of conservation areas (HCV and HCS) using the Eco-guards to avoid encroachment. • Avoidance of land areas with high carbon stocks in any development • Continued implementation of the 15 years HCV-HCS regeneration plan. • Participate in REDD+ assessments at state level, if and when necessary

FERTILIZERS	
	PLANTATION
OBJECTIVE	Increasing the use of organic fertilizer.
DESCRIPTION	By the nature of the company, fertilizers represent an important focus of emission or carbon footprint. Okomu proposes to • Ensure fertilizer application is based on results of annual foliar analysis and 5 year soil analysis results • Return pruned materials and empty fruit bunches to the soil • Research the possibility of using more efficient fertilizers. • Procure fertilizers from sustainable and local sources to reduce emissions associated with shipping of the fertilizers

	• No burning during replanting to ensure that organic matter is returned to soil.

EFFICIENCY OF EQUIPMENTS	
	MILL
OBJECTIVE	Reduce GHG released into the atmosphere
DESCRIPTION	• Optimization of the fibre/shells used in the boiler and increased efficiency of the steam turbine. Set KPI for Turbine use • Optimization of electricity from National Grid • Minimum utilization of Generator set • Execute periodic Power and Energy meetings • The company will institute a program to look for options of renewable energy such as biogas or biodiesel etc • Monitoring of GHG emissions by PalmGHG. • Ensure the use of renewable energy (turbine use) is consistent in percentage against non-renewable energy • Reduce emission from POME by exploring all methods to reduce oil loss to effluent and thus reduce organic materials to the effluent ponds, leading to a reduced amount of methane being released.

4. REFERENCES

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Environmental Audit Report of Okomu Oil Palm Company Plc, Extension 1, Located at Okomu-udo, Ovia Southwest Local Government Area, Edo State, Nigeria by Foremost Development Services Limited, August, 2021

Social Impact Assessment (SIA) Of Oil Palm And Rubber Development Project At Ovia Southwest Local Government Area, Edo State, Nigeria by Foremost Development Services Limited, May, 2017.

5. INTERNAL RESPONSIBILITY

This document is a summary of Management plans for Social and Environmental Aspects of Okomu Oil Palm Company covering 2024 – 2026. This plan will be reviewed every two years to incorporate the results of monitoring and/or following significant operational changes and will be updated as required.

On behalf of OOPC, I accept the responsibility of the company to implement the management plans and ensure it is implemented.

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Managing Director **Date**