



THE OKOMU OIL PALM COMPANY PLC

ENVIRONMENTAL AUDIT REPORT FOR SOLID WASTE DUMPSITE



Final Report

October 2020

Environmental Audit Report of Okomu Oil Palm Company Plc (Solid Waste Dumpsite) at Ovia Southwest Local Government Area, Edo State, Nigeria

Final Report

Submitted to:

Edo State Waste Management Board

Prepared by



Office Address: 21, Johnson Street, Akute, Ogun State , Nigeria
Liaison Office: 21/23, Mercy Eneli Street, Surulere, Lagos State, Nigeria
Tel: +234803 331 4800; +234813 265 2486; +234802 223 6228
Email: for4most@yahoo.com; Website: www.fdsng.com;

October 2020

ENVIRONMENTAL AUDIT TEAM AND REPORT PREPARERS

The Environmental Audit and report were carried out and prepared by Foremost Development Services' multi-disciplinary team of consultants including:

Names of Consultant	Qualification	Role Played
Mr. Fatai A. Afolabi	M.Sc. Development Planning	Overall job execution and delivery
Mr. Ahmeed A. Olanigan	M.Phil. Environmental Management & Protection	Operation and Project Coordination/Environmental Auditor
Mr. Abiodun Makinde	B.Sc. Soil Science	Environmental Auditor
Dr. Femi Oyediran	PhD, Environmental Management & Protection	Environmental Monitoring; Determination of Sampling Point, Air Quality, Water Quality, Noise Measurements and Field work Coordinator.
Engr. Rofiat Badmos (Mrs)	B.Sc. Mechanical Engineering	Environmental Auditor/Safety Engineer.
Mr. Hakeem Olajobi	M.Sc. Geographic Information System (GIS)	Preparation of Sampling Locations and Sampling Map
Environmental Laboratories Limited (No. 15A, Niyi Ayeye street off channels TV Avenue, OPIC Estate (Via Berger), Isheri, Ogun-state)	Federal Ministry of Environment Laboratory	Technical and Laboratory Accredited Services

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Acronyms and Abbreviations

OOPC Plc	Okomu Oil Palm Company Plc
AGO	Automotive Gas Oil
AAWUN	Agricultural and Allied Workers Union of Nigeria
BOD	Biochemical Oxygen Demand
°C	Degree Celcius
CBD	Convention on Biological Diversity
CFCs	Chlorofluorocarbons
CITES	Convention for prevention of International Trade in Endangered Species
CO	Carbon monoxide
CO ₂	Carbon-dioxide
COD	Chemical Oxygen Demand
CPO	Crude Palm Oil
CSR	Corporate Social Responsibility
DO	Dissolved Oxygen
DMR	Discharge Monitoring Report
dB(A)	Decibel ('A' Weighting)
EAR	Environmental Assessment Report
EAu	Environmental Audit
EAuR	Environmental Audit Report
EHS	Environmental, Health and Safety
FDS	Foremost Development Services Limited
FFB	Fresh Fruit Bunches
EMS	Environmental Management System
FMEnv	Federal Ministry of Environment
GSM	Global System for Mobile Communication
Ha	Hectare
HIV/AIDS	Acquired Immune Deficiency Syndrome
H ₂ S	Hydrogen Sulphide
ICSC	International Chemical Society Card
IPO	Initial Public Offer
IFC	International Finance Corporation
IPM	Integrated Pest Management
ISO	International Standardization Organization
km	Kilometer
PK	Palm Kernel
PKO	Palm Kernel Oil
PKC	Palm Kernel Cake
Mg/l	Milligram per Liter
MT	Metric Tonne
mW	Mega Watt
NO _x	Oxides of Nitrogen
NMHC	Non Metallic Hydrocarbon
NIFOR	Nigerian Institute for Oil Palm Research
PPE	Personal Protective Equipment
POME	Palm Oil Mill Effluent

PMS	Premium Motor Spirit
QMS	Quality Management System
RSPO	Roundtable on Sustainable Palm Oil
SDS	Safety Data Sheet
SO ₂	Sulphur dioxide
SPM	Suspended Particulate Matter
SPO	Special Palm Oil
SWD	Solid Waste Dumpsite
TSS	Total Suspended Solids
UV	Ultra Violet
UBTH	University of Benin Teaching Hospital
UNFCCC	United Nations Framework Convention on Climate Change
VOC	Volatile Organic Compound
WHO	World Health Organization

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ACKNOWLEDGEMENTS

We appreciate the time and patience expended by the management of the various departments of OOPC Plc providing us with the information and answering our probing questions. Without their contributions it would not have been possible to achieve the comprehensive coverage of the areas and issues considered in this environmental audit.

We are particularly grateful and appreciate the level of support and cooperation that we received from the following staff of OOPC Plc during the audit exercise.

Dr. Graham HEFER;	<i>Managing Director</i>
Mr. Mikle GEORGE;	<i>HSE Manager</i>
Mr. Leonit SHAJI;	<i>Industrial Manager</i>
Mr. Ajith KUMAR;	<i>Extension One Manager</i>
Mr. Samuel FORSON ;	<i>HSE Officer</i>
Blessing AKHIMIEN (Miss)	<i>HSE Manager Secretary</i>
Paulyn OJUKWU (Ms);	<i>Managing Director Secretary</i>

Executive Summary

The environmental audit of solid waste dumpsite (SWD) at main Estate was carried out to assess the environmental performance of The Okomu Oil Palm Company Plc from the point of view of conformance to local, national and international environmental legislation, regulatory standards and industry best practices. The audit covered mainly the solid waste dumpsite facility's operations of the company.

The Okomu Oil Palm Company Plc (OOPC Plc) is an agricultural and food-processing company located at Okomu-Udo, Ovia Southwest Local Government Area, Edo State, Nigeria. The company specializes in plantation development and production of special palm oil, palm kernel oil, palm kernel cake and crumb rubber. It started operation in 1976 as a Federal Government project and was privatized in 1990. The then Bendel State government granted the company a total concession of about 15,000 hectares within the Okomu forest reserve in 1978.

About 13,939 hectares, 3,514 hectares and 11,400 hectares have been developed into oil palm and rubber plantations at the main estate, Extension One estate and Extension Two estate, respectively.

The audit revealed that the company has made some progress in developing its environmental management system. More specifically, the company has formulated its Integrated Management System (IMS) Policy, wherein it expressed its commitment to conformance to legislation, waste reduction and continuous improvement in its environmental obligations. The policy has been signed by the Managing Director and has since been released.

Soil conservation practices are well understood and implemented at the plantation estates. The roads appeared well constructed and maintained with appropriate drainage measures and sediment traps in place.

There is also a well-developed program for integrated pest management (IPM). Nevertheless, the approach to pesticides use is well controlled and consistent on the plantation.

The company has obtained some statutory permits and certificates relating to different operations and equipment and quite a number of permits have been obtained and those yet not obtained are in the process. This clearly shows some levels of compliance of the company in this regard.

The quality of the environment around the solid waste dumpsite is high with good housekeeping and sanitation around this facility but needs improvement.

Waste handling operations on the estate are fraught with high hazards and pollution potentials. The company has put in place a number of abatement measures including provision of PPE to protect workers against the workplace hazards. In similar vein, a number of provisions have been made for waste reduction, waste recycling, and the prevention of pollution. These provisions include the use of fibres and kernel shells to fuel the boiler, mulching with EFB, oil retention trays and oil separation tank. In addition, routine environmental monitoring is undertaken to ensure that the treated effluents and the surface water and groundwater are of acceptable quality.

The waste management system is good. For solid waste, reasonable provisions have been made for collection, transportation, and disposal. In addition, the company has obtained from Edo State Ministry of Environment and Sustainability a permit to operate the solid waste dumpsite/landfill within the estate.

The level of signage, relating to safety education and safety warnings is good at all workplaces. But there is still room for improvement.

The ambient air quality measurements undertaken during the audit of the solid waste dumpsite (SWD) facility revealed that the ambient air quality within and around the facility is good. Similarly, the results of laboratory analyses conducted on groundwater sample close to the facility (about 150 meters) revealed that the water quality is good except for low pH (slightly acidic). However, the appropriate recommendation has been made for the correction of the pH of the groundwater.

The clinic is functional. The prevalent illnesses are clinical/medical illnesses which include malaria, gastrointestinal tract, respiration problems, muscular-skeletal problem, bacterial and fungi infections, eye problem, hypertension and other minor ailments. The preventive health education programme of the clinic has improved greatly.

It is recommended that the recommendations in chapter four of this report is implemented effectively.

CHAPTER ONE

1.0 Introduction

The Okomu Oil Palm Company Plc (OOPC Plc) is a leading agricultural establishment in Nigeria. The company specializes in the establishment and maintenance of oil palm and rubber plantations and has been in operation for over 30 years. The company has incorporated very high environmental standards in its operations and is committed to continual improvement in its environmental management system.

The company commissioned Foremost Development Services Limited (independent environmental consultants) to carry out an Environmental Audit of its solid waste dumpsite at its Main estate. The objective is to determine and thereby provide regulatory bodies (such as Edo Ministry of Environment and Sustainability and Edo State Waste Management Board) with a clear indication of the overall environmental performance of the dumpsite as stipulated in the permit granted the company to operate the facility in May 2017.

The audit involved fieldwork including physical inspection of the dumpsite and environs including the nearby residential quarters known as IITA. It also involved examination and review of records and reports relating to environmental management of the site. In addition, some physical environmental factors were sampled, and the samples collected were later analyzed in the laboratory.

This report is structured to present the description of the solid waste dumpsite (SWD) and provide information on waste sources, waste storage, waste collection, waste transportation and finally waste disposal, followed by analysis and the facility audit in the sequence of topics listed in the Federal Ministry of Environment audit guidelines.

1.1 Regulatory Bodies

1.1.1 Institutions and Regulatory Agencies

- Federal Ministry of Environment
- Edo State Ministry of Environment and Sustainability
- Edo State Waste Management Board
- Edo State Fire Service
- Ministry of Health, Edo State
- Department of Environment, Ovia Southwest Local Government Area of Edo State, Nigeria.

Federal Ministry of Environment

The Federal Ministry of Environment is the apex body with the broad mandate to regulate and protect the environment in Nigeria. The Ministry has enacted a number of environmental laws and regulations. In addition, Nigeria is party to some international agreements; protocols and conventions on Environment and is bound by their provisions and requirements.

Edo State Ministry of Environment and Sustainability

The Edo State Ministry of Environment and Sustainability is the arm of government responsible for regulating the environment in Edo State of Nigeria. Depending on certain peculiarities of the state, the Ministry has made and established its own laws and environmental standards, which are not inconsistent with Federal laws.

Edo State Waste Management Board

This Board is under the Governor's Office with a mandate for waste management and environmental sanitation.

Ovia Southwest Local Government Area

The Department of Environment, Ovia Southwest Local Government Area of Edo State, Nigeria is the tier of government that is responsible for regulating and monitoring the environment at the local level especially the aspects of health and sanitation inspection of business premises to ensure that they conform to set standards.

1.2 Objective

The objective of this audit is to evaluate and determine the environmental performance of OOPC solid waste dumpsite from the point of view of conformance to local, national and international laws and standards, and industry and international best practice (IIBP).

1.3 Period of Audit

The audit was carried out from 26 – 30 August 2020.

1.4 Company Information

1.4.1 History

The proponent of the proposed 60tons FFB/Hr Palm Oil Mill project; The Okomu Oil Palm Company Plc (OOPC Plc) herein referred to as "The Company" is an agricultural and food-processing company located at Okomu-Udo, Ovia Southwest Local Government Area, Edo State, Nigeria. The company specializes in plantation development and production of crude palm oil, palm kernel oil and palm kernel cake.

The company 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 hectares out of which 12,500 hectares could be planted with oil palm. It was incorporated on December 3, 1979 as a limited liability company.

In 1990 the Technical Committee on Privatization and Commercialization (TCPC) privatized the company on behalf of the Federal Government of Nigeria. At the turn of the millennium, the company acquired 6,000 hectares and 11,400ha property known as Extension One and Extension Two respectively to further boost its available hectarage.

The Company has since grown to become one of Nigeria's leading agricultural companies. Presently the company has over 10,000 ha of oil palm of which 8,713 ha is mature and 7,500 of rubber of which around 5,000 ha is mature. It has also expanded its milling capacity from a meagre 1.5 tons FFB/hr in 1985 to 30 tons FFB/hr in 1992 and most recently an expansion of the existing mill to 60tons FFB/hr in 2018thus making the company to operate one of the largest palm oil mill in Nigeria.

In 2014 OOPC Plc acquired a partly developed plantation of 11,416.673 ha at Uhunmwonde and Ovia-Northeast Local Government Areas of Edo State. This latest acquisition is referred to as Extension Two. The company has since been developing the plantation upon completion of the EIA in 2016 in strict conformity to the principles and criteria of the Roundtable on Sustainable Palm Oil and best management practices that is reputed for. The company now plans to establish a 60 tons/hr mill given the considerable progress of oil palm development at Extension Two.

The privatization of the Company has been a great success and a huge encouragement for the Nigerian agricultural sector, with profound positive consequences of stable socio-economic growth for the region where it is located. The company has consistently posted profits in the last 15 years; a period during which most other similar establishment in the country have either folded up or performing sub-optimally.

What is most inspiring is not just the growth and profitability of the company, but the fact that it is the only agri-business in the NSE's top 18 companies with the largest turnovers.

Today, what is now known as The Okomu Oil Palm Company Plc has transformed into an economic success, earning presidential recommendation, and recording over 300 percent rise in profit-after-tax (PAT). The excellent quality of the palm oil and crumb rubber produced by the company, guarantees premium selling prices on the local and international markets.

Just as the company is expanding in size, its corporate environment is also expanding. The Company has over 12,000 individual and institutional shareholders, both Nigerian (40%) and foreign (60%). Currently, the company employs over 2000 permanent staff and several independent sub-contractors. All these have added up to place the Company on top in the burgeoning oil palm business and to position it as an emerging leader in rubber production.

The Company benefits from the quality management provided by its main shareholders and technical partner, Socfinaf SA, with 62% shares in the company. Socfinaf SA is the biggest single shareholder that brings into the company a little under a century of sound acclaimed technical expertise in the world stage on tropical agriculture.

Socfinaf SA is a global player in the cultivation of oil palm, rubber, coffee, and tropical flower. Socfinaf SA founded in 1912 was the first industrial company to plant oil palm in Africa and Indonesia. It has ongoing plantations in Cote D'ivoire, Liberia, Guinea, Cameroun, Indonesia, Kenya Sierra Leone, and Congo.

1.4.2 Location and Access

The company headquarter is located at Okomu-Udo, within the Okomu Forest Reserve in Ovia Southwest Local Government Area of Edo State, Nigeria. The company is accessible through a network of roads from Lagos and Benin City. It lies between latitude 5⁰07.120' and 5⁰25.220'E and longitude 6⁰18.870' and 6⁰26.110'N.

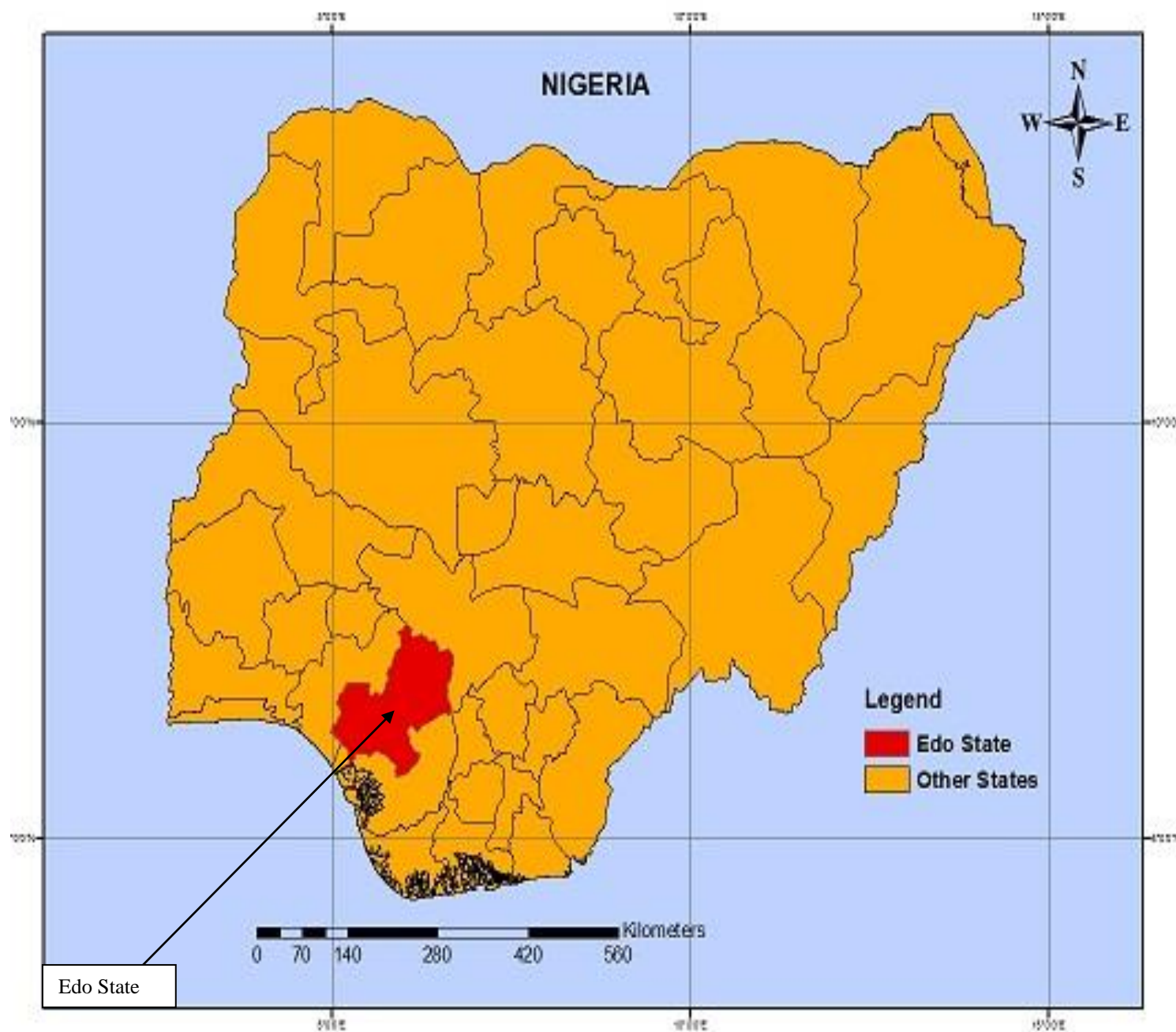


Figure 1.1: Map of Nigeria Indicating Edo State

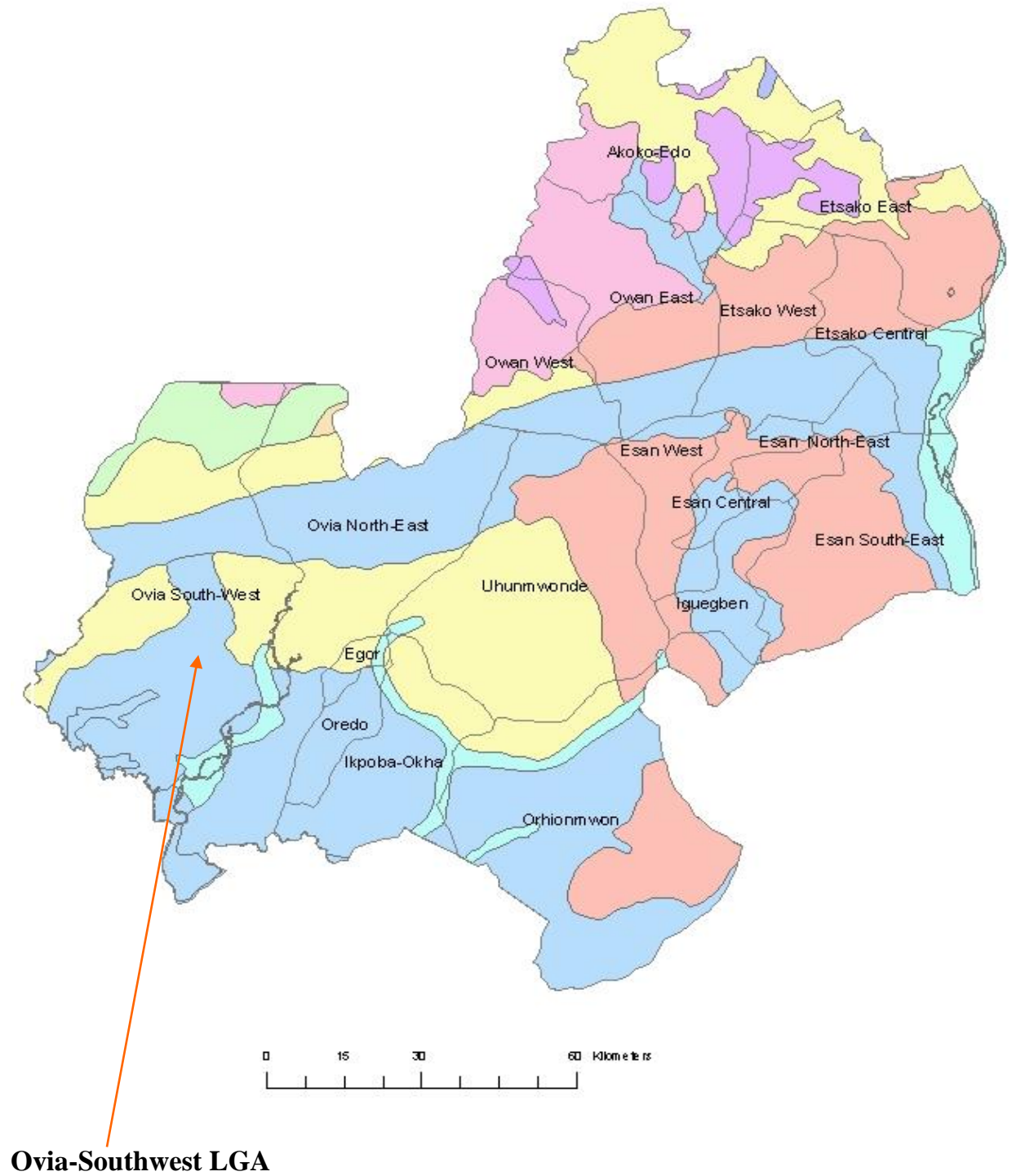


Figure 1.2: Map of Edo State Indicating Ovia-Southwest LGA (Company Headquarter)

1.4.3 Activities

The company undertakes plantation agriculture involving the growing of oil palm (*Elaeis guineensis*) and the processing of Fresh Fruit Bunches (FFB) into crude palm oil (CPO). The company is also involved in the planting and tapping of rubber trees (*Hevea brasiliensis*), and the processing of cup lumps into crumb rubber. The major activities of the company include the oil palm plantation, palm oil mill, rubber plantation and rubber factory operations.

1.4.4 Mission Statement of the Okomu Oil Palm Company Plc

"To be Nigeria's leading agribusiness, through the efficient and effective management of our various plantations by a highly motivated workforce, working in harmony with other stakeholders, and continuously returning favorable results to our shareholders".

CHAPTER TWO

Description of Facility and Processes

2.1 Brief Project/Process Description

The proposed solid waste dumpsite is situated within the Main estate of OOPC. The solid waste dumpsite is situated within approximate geographic coordinate N06°25.059' and E005°12.424'.

The company believes strongly in environmentally sustainable production based on reduce / reuse / recycle principle and as a matter of fact, the company try as much as possible to generate little waste arising from its operations which is therefore being properly managed from cradle to grave. The solid waste dumpsite has an approximate 15 hectares of land measuring 200m × 100m.

The company has in place waste disposal tractor used in transporting waste from various places of storage/collection points to the final disposal site (solid waste dumpsite).

The solid waste dumpsite consists of four (4) major compartments and one (1) excavated open pit for domestic waste namely:

- i) **Chemical Waste:** This includes primarily empty agrochemical and chemical containers (compartment roof covered with aluminium sheet against atmospheric condition).
- ii) **Plastic Waste:** For broken and unused plastic product excluding chemical containers.
- iii) **Aluminium Waste:** For household pots and other aluminium-like products.
- iv) **Glass waste:** For broken glasses and other glass-like products
- v) **Household Waste:** This is an excavated open pit where biodegradable household wastes such as left-over foods are deposited.

Waste generated on the estate is classified into hazardous waste, non-hazardous waste, and medical waste (special waste).

- **Hazardous Waste**

The main hazardous wastes are expired agro-chemicals and laboratory chemicals. But the company purchases agrochemicals and laboratory chemicals that are required for its processes. Where there are expired agro-chemicals and laboratory chemicals, expert advice about their disposal will be sought from the relevant state and federal regulatory authority. However, no expired agro-chemicals and laboratory chemicals have been recorded in recent time. Spent oil and waste oil filters are sold to a registered company in Port Harcourt.

- **Non-Hazardous Waste**

Particularly waste tyres and scrap metals – Sold to prospective buyers.

- **Medical Waste**

These are wastes produced by the Clinic (needle, syringes, and pathological waste). The clinic disposes these wastes through its own program in conjunction with HSE department, (by burning inside the boiler).

2.2 Waste Generation

Solid waste generated on the estate is classified into domestic, industrial (hazardous and non-hazardous wastes) and medical waste (special waste).

- **Domestic waste**

These are household wastes deposited at the excavated open dump.

- **Industrial waste**

This includes both hazardous and non-hazardous wastes such as wastewater from the mill, empty agrochemical containers, spent oil and scrap metals. They are reused, recycled, sold, and sometimes returned to suppliers.

- **Medical waste (Special Waste)**

These are wastes produced by the Clinic (needles, syringes, and pathological waste). Medical wastes are disposed by burning inside the boiler.

2.3 Waste Sources

Solid and liquid wastes are generated from virtually every facility component, but the mill and rubber factory generate the largest volume of liquid waste, while the bulk of the gaseous emissions come from the powerhouse, mill/rubber factory and automobiles and most especially effluent lagoon

emitting large amount of Green House Gases (GHG)-Carbon-dioxide and methane (CO₂ and CH₄) into the atmosphere.

2.4 Waste Reduce/Re-Use/Re-cycling

Empty Fruit Bunches and boiler ash are recycled in the field (see Plate 5), while fibres and kernel shells are reused as fuel for the boilers. For workshop steel and metal waste (scraps), scrap yard is provided (see Plate 7) where they are kept being reused later and/or sold to potential buyers. The effluents from the milling facility and the rubber factory are being channeled to a lagoon and ponds respectively for biological (natural) treatment before being discharged into the plantation as irrigation water.

The capability and capacity of the company to handle, store, collect, transport, and dispose its wastes in an environmentally responsible manner within the oil palm plantation is depicted in the photographs below.

2.4.1 Storage

At all the points of waste generation, waste bins are provided for the immediate storage of solid waste. Provision is also made for sorting and segregation of all solid waste at the point of generation (see Plate 2).



Plate 1: Colour Codes for Different Solid Waste Generated on the Estate

There are waste management plans where wealth shall be generated from wastes as much as it is possible. Waste and Pollution Management Procedure (Reference GP 33) for the entire company operation is presented in Appendix V.



Plate 2: Solid Waste Storage System

2.4.2 Collection and Transfer

Adequate Personal Protective Equipment for waste management staff always (see Plate 3).



Plate 3: Waste Collection in Progress

2.4.3 Means of Collection and Transportation

Waste collection and transfer include the provision of a tractor-mounted bucket to collect and transport the collected waste to a designated solid waste dumpsite (see Plate 4).

The solid waste collected is transported and disposed at the solid waste dumpsite.



Plate 4: Tractor-Mounted Bucket

2.4.4 Converting Empty Fruit Bunches (EFB) into Manure

Empty Fruit Bunches and boiler ash are recycled in the field to produce manure for the palm (see Plate 5).



Plate 5: Empty Fruit Bunches (EFB)

2.4.5 Disposal

The solid waste dumpsite is the final/disposal point for all solid waste. It is in a remote area within the plantation and has enough capacity of 200m x 100m (approximately 15 hectares) to receive the domestic waste generated on the estate. The solid waste dumpsite is primarily for domestic (organic) waste while the inorganic waste is either sold or collected by the suppliers.



Plate 6: Scrap Yard Always Under Lock

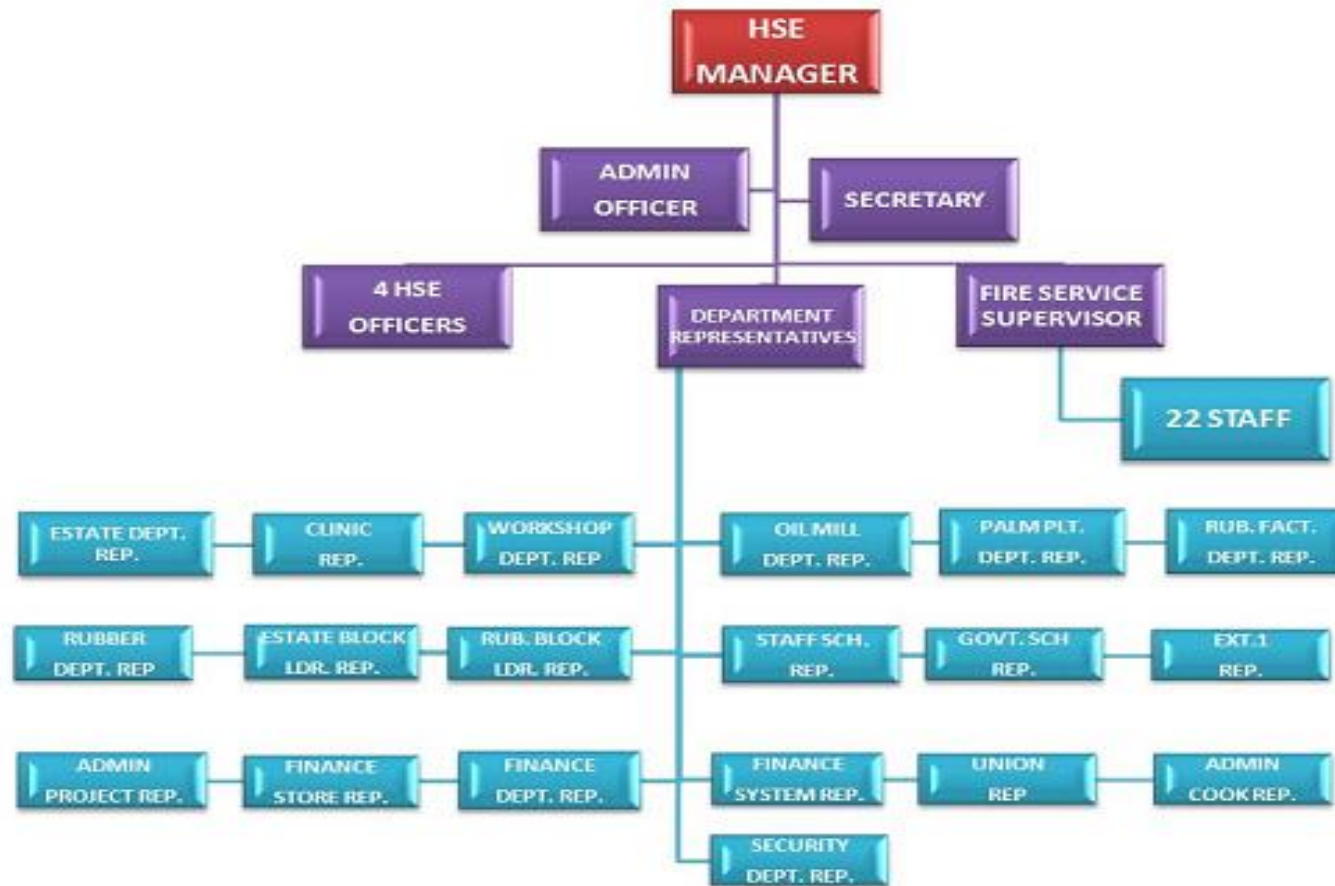


Figure 2.1: HSE Department Organizational Structure

CHAPTER THREE

3.0 Health, Safety and Environment Audit

The audit of the facility and the existing Environmental, Occupational Health, and Safety Management System was carried out using the combination of the National Guidelines for Environmental Audit Report (EAR) in Nigeria, Nigeria's Factories Act, and Industry/Management Best Practices.

3.1 Environmental Issues

The aspects of the environment considered include housekeeping and sanitation, leachate, and pollution issues.

3.1.1 Housekeeping and Sanitation

Housekeeping is generally good at and around the solid waste dumpsite including the nearest residential quarters as depicted in the photograph below.



Plate 7: Good Housekeeping at Solid Waste Dumpsite Facility

The method of storage and evacuation seems to conform to the 5 S's principle namely, sorting, straightening, sweeping, standardizing, and sustaining the discipline. This has yielded good results thus culminating into proper and appropriate waste collection by potential waste recyclers.

3.1.2 Pollution

Environmental pollution can be defined as the presence in or introduction into the environment of a substance which has harmful or poisonous effects. In this regard, this section is broken down into ambient water quality, air emission and ambient air quality, wastewater quality, hazardous materials management, and noise.

3.1.2.1 Ambient Water Quality

The quality of all the groundwater samples is good and free from pollution. Except for low pH (5.39 – 6.35), all other physico-chemical and microbiological parameters fall within the permissible limits recommended by WHO and FMENV for wholesome water. The full results of laboratory analyses of water samples are presented in Appendix I.

Sampling Codes and their Locations

S/N	Code	Description of location	Coordinates	
1	OKM _{LL}	Labour Line Quarters	N06°24' 38.7"	E005°15'75.6
2	OKM _{MQ}	Management Quarters	N06°24' 36.4"	E005°16'25.1
3	OKM _{IITA}	IITA Quarters	N06°24' 52.1"	E005°12'54.4
4	OKM _{MC}	Mill Complex	N06°24' 19.9"	E005°14'11.0

Table 3.1: Laboratory Analysis Results of Groundwater Sample Near the Solid Waste Dumpsite and other Borehole Water Samples on the estate.

PARAMETER/UNIT	NIS554: 2017	OKM _{LL}	OKM _{MQ}	OKM _{ITA}	OKM _{MC}
Appearance	Clear & Colourless	Clear & Colourless	Clear & Colourless	Colourless with Particles	Colourless with Particles
pH @26.2°C	6.5-8.5	5.81	5.69	5.39	6.35
Temperature, °C	Ambient	29.0	25.5	33.0	24.2
Conductivity, µS/cm	1000	17.58	18.60	21.6	12.46
Colour, Pt-Co	15	<1	<1	10	9
Turbidity, NTU	5	0.03	<0.01	0.43	0.95
Total Solids, mg/L	-	8.82	22.26	24.8	6.40
Total Dissolved solids, mg/L	500	8.82	9.26	10.8	6.11
Total Suspended Solids, mg/L	-	<1	13	14	0.29
Total Hardness, mg/L	150	4	4	4	4
Total Alkalinity, mg/L	-	10	10	10	20
Total acidity, mg/L	-	30	40	35	10
Calcium, mg/L	-	<0.1	<0.1	<0.1	0.8
Magnesium, mg/L	20	0.97	0.97	0.97	0.47
Chloride, mg/L	250	3	3	5	1
Nitrate, mg/L	50	0.2	<0.1	0.1	0.2
Nitrite, mg/L	0.2	<0.01	<0.01	<0.01	<0.01
Sulphate, mg/L	100	2	3	2	3
Phosphate, mg/L	-	0.25	2.1	1.85	0.29
Iron (total), mg/L	0.3	0.02	<0.01	<0.01	0.02
Fluoride, mg/L	1.5	<0.1	<0.1	<0.1	<0.1
Lead, mg/L	0.01	<0.001	<0.001	<0.001	<0.001
Arsenic, mg/L	0.01	<0.001	<0.001	<0.001	<0.001
Manganese, mg/L	0.2	<0.001	<0.001	<0.001	<0.001
Copper, mg/L	1.0	<0.001	<0.001	<0.001	<0.001
Cadmium, mg/L	0.03	<0.001	<0.001	<0.001	<0.001

Chromium, mg/L		0.05	<0.001	<0.001	<0.001	<0.001
Hydrogen Sulphide, mg/L		0.05	<0.01	<0.01	<0.01	<0.01
Total coliform count, CFU/mL		10	0	1	0	0
Faecal coliform, <i>E. coli</i> ,	CFU/100 mL	0	0	0	0	0
<i>Clostridium perfringens</i> ,		0	0	0	0	0
<i>Salmonella/Shigella sp.</i> ,		0	0	0	0	0
<i>Staphylococcus sp.</i> ,		0	0	0	0	0
<i>Pseudomonas aureus</i> ,		0	0	0	0	0
Mould and yeast,		0	6	21	0	8
Total plate count,		10 ²	3	15	0	21

Source: OOPC Plc: Environmental Audit Field work (September 2020)

3.1.2.2 Air Emission and Ambient Air Quality

The ambient air quality was determined in-situ during the audit for critical locations as presented in the table below:

Sources	Location	Air Emission
Point Source	Solid Waste Dumpsite	NO _x , SO ₂ , CO, PM, VOCs, Dioxin
Fugitive	Solid Waste Dumpsite, Roads, Unpaved Ground	PM, NO _x , SO _x , CO
Mobile Sources	Tractors, Machinery	NO _x , SO ₂ , CO, PM, VOCs

3.1.2.3 Ambient Air Quality Monitoring

The ambient air quality was determined in-situ during the audit. The full results and methodology are presented in Appendix II and parts of the results are presented as follows:

Location	Main Powerhouse (1100, 1100 & 1650kVA)	IITA Residential Quarters	Solid Waste Dumpsite	FME _{Env} . Limit
Coordinate	N06024.462'	N06024.462'	N06°24' 52.1"	
	E005015.653'	E005015.653'	E005°12' 54.4"	
Elevation (m)	61	61	72	
Noise, dB(A)	87.2	54.6	51.8	90
SPM (µg/m ³)	160	50	50	250
Humidity (%)	75.9	90.4	92.6	Ambient
Temperature (°C)	27.8	25.2	25.0	Ambient
Carbon monoxide, ppm	<1.0	<1.0	<1.0	10-20
Carbon dioxide, %	0.40	<0.1	<0.1	Ambient
Hydrogen sulphide, ppm	<0.1	<0.1	<0.1	NS
Hydrocarbon, %	<0.1	<0.1	<0.1	NS
Oxygen, %	21.0	21.0	21.0	21.0
Sulphur dioxide, ppm	<0.01	<0.01	<0.01	0.01
Nitrogen oxides, ppm	<0.01	<0.01	<0.01	0.04 – 0.06
VOC, ppm	<0.01	<0.01	<0.01	NS

Source: OOPC Plc: Environmental Audit Fieldwork (September 2020)

VOC = Volatile Organic Compounds; SPM = Suspended Particulate Matter; NS = Not Specified.

The results of in-situ air quality determinations conducted around the solid waste dumpsite and on the entire estate show that the concentration of noxious gases was detected within the recommended range and therefore does not pose any threat to the environment. The particulate matter at all the monitored locations was found to be below the FME_{Env} Standard for 8-hour exposure.

3.1.2.4 Leachate

Leachate is defined as any liquid percolating through the deposited waste and emitted from or contained within a Dumpsite. As it percolates through the waste it picks up suspended and soluble materials that originate from or are products of the degradation of the waste. The principal organic contents of leachate are formed during the breakdown process and its organic strength is normally measured in terms of biochemical oxygen demand (BOD), chemical oxygen demand (COD), or total organic carbon (TOC). The characteristics of leachate produced are highly variable depending on the composition of the waste, precipitation rates, site hydrology, compaction, cover design, waste age, sampling procedures and interaction of leachate with the environment and landfill design and operation.

Leachate Quality: Leachate sample was collected during the audit and sample taken to the laboratory to check that the quality parameters are within the regulated limits. The full results of the physical and chemical analyses are presented in Appendix III, while the results obtained for the critical quality parameters are summarized in Table 3.2 below.

Sampling Locations

S/N	Code	Location	Coordinates	
			N	E
1	OKM _{SWD1}	Point 1	N06°24' 52.1"	E005°12'54.4"
2	OKM _{SWD2}	Point 2	E005°12'54.4"	E005°12'54.4"

Table 3.2: Results of Laboratory Analysis for Critical Leachate Parameters

S/N	Parameters	Methods	Results	FME _{Env} Limit
1	pH	ASTM D1293-18	6.82	6.5-9.0
2	Temperature	EPA 79	30.4	<40
3	Electrical Conductivity	ASTM D1125-14	320	N/A
4	TDS	ASTM D868	120	2000
5	Turbidity	ASTM D7315-17	30.70	N/A
6	TSS	ASTM D1868	4.40	30
7	THC	ASTM D3921	<0.04	10
8	DO	ASTM D888-92(96)	1.90	N/A
9	BOD	APHA-507	68.20	80
10	COD	ASTM D1252-95	95.40	50
11	Chloride	ASTM D512-89(96)	138.0	600
12	Alkalinity	ASTM D1067-92	142.70	N/A
13	NO ₃	ASTM D3889-90	4.25	20
14	NO ₂	ASTM D3867-09	2.55	N/A
15	SO ₄	APHA 427C	9.04/	500
16	NH ₄ -N	ASTM D1426-93	12.06	N/A
17	PO ₄	ASTM D515-88	1.11	5
18	Na	ASTM D5863-2016	28.14	N/A
19	K	ASTM D2791-93	13.74	N/A
20	Ca	ASTM D511-14	45.53	200
21	Mg	ASTM D511-14	2.33	200
22	Total Hardness	ASTM D511-14	123.3	N/A
23	CN	EPA 1914	<0.01	0.1
24	OG	ASTM D3921	<1.0	10
25	Pb	ASTM D4834-03(14)	0.085	<1.0
26	Cd	ASTM D3557-95	<0.001	<1.0
27	Mn	ASTM D858-95	0.076	5
28	Cr	ASTM D1687-92	0.024	<1.0
29	Cu	ASTM D858-17	0.056	<1.0
30	Fe	ASTM D1068-15	0.974	20
31	As	ASTM D2972-97	<0.001	0.1
32	Hg	ASTM D7623-10(15)	<0.001	0.05
33	Dioxin,	GC FID	<0.001	N/A
34	Pesticide (PCBs),	GC FID	<0.001	0.003

Source: OOPC Plc: Environmental Audit Field work (September 2020)

The effluent sample conforms to the general FME_{Env} limits for wastewater discharge on land except for slight high level of Chemical Oxygen Demand (COD) as presented in Table 3.2 above.

3.1.2.5 Waste Management

The handling and storage of wastes particularly empty agrochemical containers, empty laboratory chemical containers, domestic wastes, medical waste, and metal scraps are carefully done. Safety Data Sheets (SDSs) are compiled and displayed for hazardous chemicals in use to enable chemical handlers acquaint with the general handling of hazardous chemical waste in use.

Types of Wastes Stored

Wastes including empty hazardous substances containers and materials that are used on the estate are stored. These include empty agrochemical containers, empty chemicals containers, electrical waste (e-waste) such as computer hardware's, cartridges, and electrical bulbs.

Disposal of Hazardous Waste

Plastic and metal pesticides containers are properly rinsed before they are taken to the dumpsite for transitional storage. The company has not experienced any stock of outdated pesticides.



Plate 8: Empty Agrochemical Containers' Storage Compartment covered with roofing sheet to prevent run-off during rainfall

Observations at Solid Waste Dumpsite Facility!!!

- ✓ *Containment bunds with suitable capacities have been built for the waste storage compartment particularly for the empty agrochemical containers.*
- ✓ *Large quantity of suitable absorbent such as sawdust and sand in case of accidental spillage or leakage have been provided for empty agrochemical containers compartment.*

However, there must be stringent measures in place to enable waste workers adhere strictly to the procedures of operations at the solid waste dumpsite especially when discharging the waste at the facility.

Waste Handling

Necessary precautions are taken on the handling of wastes. All workers involved in the handling of waste (waste managers) are kitted with appropriate personal protective equipment. The PPE provided include protective clothing, hand gloves, eye goggles, caps, respirators, and boots as depicted in Plate 3.

Waste Management – Training

Workers particularly waste managers have recently received a formal training on the hazards, precautions and procedures for the safe storage, handling and use of all potentially harmful materials relevant to each employee's task and work area.

3.1.2.6 Noise

Generally, the solid waste dumpsite environment is serene. A digital sound level meter was used to measure the noise levels at and around the solid waste dumpsite. The measurement taken showed that the noise level ranges from 51.8 dB(A) to 87.2 dB(A). The noise levels are within Federal Ministry of Environment/NESREA permissible limit of 85 dB(A) for 8 hours exposure as presented in section 3.1.2.3.

Usually for areas and operations with high noise levels, engineering modifications are made to reduce the noise and earmuffs are provided for workers to abate the effect of high noise.

But for the solid waste dumpsite facility, the noise level is between 51.8 dB(A) and 54.6 dB(A).

Recommendation

- *It is required to routinely check noise levels at all critical facilities and operations generating noise especially before and after repairs and maintenance works and when a new machine is installed.*
- *Waste Managers should always be advised to wear earmuff/ear plug when they are working at high noise generating areas.*

3.1.2.7 Pollution Prevention and Control

Release of pollutants

Every workplace has the potential to release pollutants into the environment, however, provisions have been made to reduce or eliminate pollution.

Pollution Abatement Provisions

A quite number of pollution abatement measures have been made. These include:

- Zero level burning at replanting and new planting in the plantation
- Maintenance of constant soil cover to prevent soil erosion
- Safe stack height
- Provision of effluent treatment facility (Tricanter)
- Provision of earmuffs for exposure to high noise levels
- Provision of mufflers in the silencers.
- Provision of oil separation tanks
- Provision of oil retention trays
- Provision of colour coded waste bins

Pollution Complaints

The neighboring communities have not made any pollution complaints against the company in recent time.

Recommendations:

- *Waste Handlers (Waste Managers) should be regularly monitored to ensure that they always wear appropriate PPE when at work.*
- *Annual medical check-up for Waste Handlers (Waste Managers) should be conducted.*

3.2 Occupational Health and Safety Issues

This section is broken down into the following different areas: Clinic, Occupational Illnesses, Occupational Illnesses trend and Incident and Accident/Fatality. So also, transport, workers' safety (PPE), signage and compliance monitoring were specifically investigated during the audit.

3.2.1 Clinic

The clinic is registered with the State Ministry of Health. The registration number is ED/M/C/292/2009. It is located at the main estate behind the administration block. The clinic has a resident doctor and qualified nurses on full time.

The clinic record revealed that workers have been treated for different illnesses including malaria, gastrointestinal tract (GIT), Infection, respiratory tract infection (RTI), pelvic inflammatory diseases (PID) muscular-skeletal pain, abscesses/infection, conjunctivitis, hypertension and other minor ailments. The details of the Clinic's report are provided in Appendix IV.

3.2.1.1 Analysis of Occupational Illnesses

Occupational Illnesses by Type: Of all the cases treated in 2020, malaria with appear to be the most prevalent illness with about 44.86%, followed by Non-Industrial Musculo-Skeletal problems with 16.86%, followed by Respiratory Tract Infection (RTI) with 16.84%, followed by GIT/Abdominal Problems with 10.74%, followed by Surgical Patients with 6.84%, followed by Bacterial Infections 5.97%, , followed by Skin Infections with 4.08%, followed by Home Accidents/Injury with 3.38%.

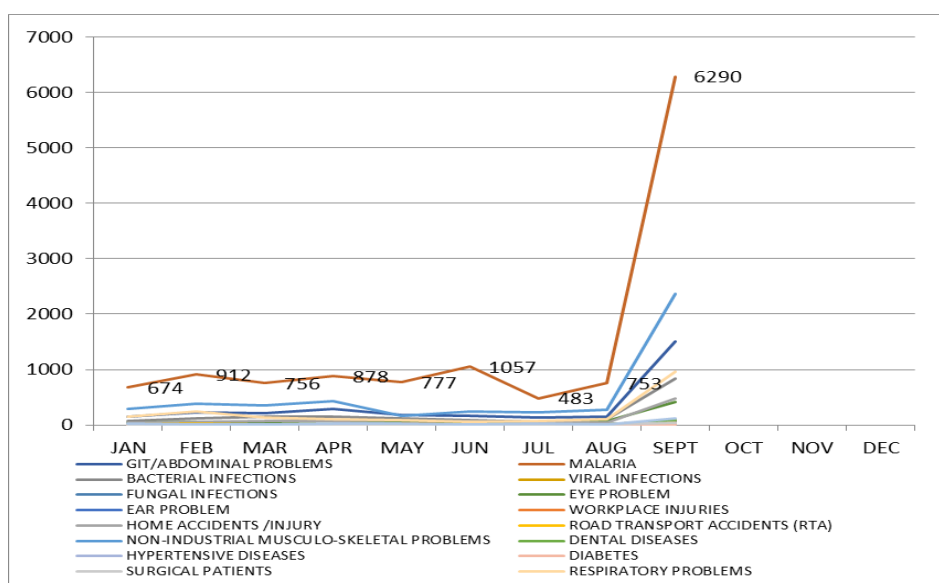


Figure 3.1: Analysis of Major Illnesses in 2020

3.2.1.2 Accidents and Diseases Monitoring

Records of occupational accidents, injuries and illnesses are kept. Formal procedures and systems of reporting and monitoring have similarly been established.

3.2.2 Transportation

The company has both light and heavy vehicles, which are well maintained and fitted with first aid kits. The mass transit vehicles have recently been refurbished making them more comfortable and safer to transport workers.

3.2.2.1 Roads

The estate has a total network of earth roads of over 315km. The road network connects and affords access to all workplaces. The roads are well maintained and are motorable all the year round.

3.2.2.2 Traffic Safety

The operations on the estate do not generate high volume of traffic, but road traffic involves different categories of vehicles and machinery.

The promotion of traffic safety and the level of road safety initiatives covering both the estate and public roads are commendable.

- Road safety education and warning signs are displayed upon entry and exit of the facility.
- Road signs and speed limits are conspicuously posted on some major roads and most drivers do use seat belts and observe speed limits when driving on the estate.

3.2.3 Workers' Safety

3.2.3.1 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE's) are provided to all workers. The use of PPE has improved tremendously. Some of the PPE provided to workers include:

Part of the Body	Hazard	PPE
Head	Falling objects	Hard hats
Trunk and Body	Solvents moisture	Aprons (Overalls)
Foot	Slipping, sharp items on the floor, falling objects	Safety shoes or Boots
Eyes	Dust and flying particles	Eye Goggles
Hand	Sharp edges and corrosive chemicals	Hand Gloves
Ear	Excessive noise	Earmuffs, Ear Plugs
Nose	Dust and Fumes	Nose Masks

3.2.3.2 Fire Precautions

Fire Detection and Fire Fighting

Provisions are made for firefighting equipment including fire truck, fire extinguishers, sand buckets, and stand-by water tankers in case of fire outbreak.



Plate 9: Stand-by Fire Fighting Truck at Rubber Factory

3.2.4 Communication and Training

3.2.4.1 OSH Training

Formal training on occupational safety and health is an on-going programme conducted by the company on an annual basis. Several training programmes have been done.

3.2.4.2 Visitor Orientation

Visitors are given orientation on OSH conduct with appropriate manual and control programme also put in place.

3.2.4.3 Basic OHS Training

Some basic OHS training and specialty courses are being run for management, HSE Committee, supervisors, and workers.

3.2.5 Conformance to Legislation, Regulations and Standards

3.2.5.1 Compliance with National Legislation

HSE Department: The Company has established its HSE department. The HSE committee is also assisting in the HSE management on the estate.

Submission of Discharge Monitoring Report (DMR): The discharge monitoring reports are prepared quarterly and submitted to the regulatory bodies including Edo State Ministry of Environment and Sustainability.

Submission of EAuR: The Company is up to date in the audit of its facility and processes. All previous Environmental Audit Reports were submitted to the Federal and Edo State Regulatory Agencies.

Preparation and Submission of EIA Report: An Environmental Assessment Report (EAR) for the Solid Waste Dumpsite was submitted to Edo State Ministry of Environment and Sustainability. The report was adjudged satisfactory after review by the Ministry and an approval for establishing the dumpsite in-house was granted in 2016.

The status of submissions is presented in Table 3.3.

Table 3.3: Status of Submissions to Regulatory Bodies

Requirement	Status	
	Submitted	Not Submitted
Environmental Audit Report	✓	
Environmental Assessment Report	✓	
Quarterly DMR	✓	
List of Chemicals	Available	X
MSDS	Available	X
Emergency Response Plans	✓	
Contingency Action Plans	Available	X
Record of Fire Drills	Available	X
Accidents, Incidents and Near Misses	Available	X
Accident Investigation Reports	Available	X
Integrated Management System (IMS) Policy	Available	X

Integrated Management System (IMS) Policy: The Company has a well written, articulated IMS policy where the management expresses and demonstrates commitment to the environment as well as health and safety of the employees. The Policy is duly signed by the Managing Director.

ISO Certification: The company has recently been certified as ISO 14001:2015, ISO 9001:2008 and ISO 18001 for Environmental Management System (EMS), Quality Management System (QMS) and Occupational Health and Safety Management System (OHSMS) respectively (see Appendix VI).

Other Policies: A few other policies have been issued including Drug and Alcohol policy.

3.3 Industrial Labour Relations

3.3.1 Employment

The company workers include expatriates and Nigerians at management, managerial, senior, and junior cadres. Both genders are employed but the male gender commands higher percentage.

3.3.2 Employment Opportunities

The company does not discriminate in its employment. However, priority is given to employing suitably qualified workers from the host communities.

3.3.3 Welfare

The Company operates with due respect to the Nigerian Industrial Labour laws. The workers have freedom to belong and participate in labour union activities and workers belong to the Agricultural and Allied Workers Union of Nigeria (AAWUN). This allows for collective bargaining, honesty, and communication in both directions. The Company offers competitive wages and welfare packages (salaries plus allowances and bonuses) for all categories of staff.

Accommodation and other essential utilities, like water and electricity, are also provided free for all the workers that are resident on the estate. There is also provision of waste management facilities and personnel to ensure clean environment both in the residential and office premises.

The company operates a standard clinic to cater for the basic health services requirement and as a matter of policy, provides all the necessary personal

protection apparel for each worker on yearly basis. It tries to make work areas conducive for maximum comfort, devoid of preventable environmental and health hazards.

3.4 Corporate Social Responsibility

3.4.1 Community Relations/Development Undertaking

The company has a 'Host Community Policy' and has undertaken several community developments projects to demonstrate its spirit of partnership and goodwill to the host communities. Some of the projects undertaken by the company is presented in Appendix VII.

CHAPTER FOUR

4.0 REMARKS AND RECOMMENDATIONS

4.1 Compliance with Legislation

4.1.1 Submission of Records and Reports to Regulatory Bodies

The company has been submitting most of the reports and information to the appropriate regulatory bodies. It is therefore recommended that all reports, data, lists and log sheets relating to the environment be submitted to the Federal and State Ministries of Environment and other relevant regulatory bodies, and every submission be duly acknowledged and copies filed appropriately.

4.1.2 HSE Department

There is a fully operational HSE department with capable personnel. The department plans, manages, oversees, and supervises environmental, occupational health and safety activities of the solid waste dumpsite.

4.1.3 Permits/Licenses/Approvals

Most permits, certificates and licenses have been obtained. It is recommended that, all outstanding permits/Licenses/Approval be obtained, and expired ones validated.

4.1.4 IMS and Other Policies

The company has developed an integrated management system (IMS) policy and other policies as they are applicable to its operation.

4.2 Environment

4.2.1 General Housekeeping and Sanitation

Housekeeping and sanitation at solid waste dumpsite are fair but can still be improved upon especially at the excavated part of the SWD for decomposable waste. It is recommended to:

- ❖ Stop dumping cartons into the excavated pit. Source for prospectus buyers for recycling.
- ❖ Dispose and/or discharge properly all decomposable waste inside the excavated pit.
- ❖ Immediately evacuate all recyclable waste from the compartment when it is full to avoid eyesore.

4.2.2 Drainage System

There is good drainage system around the SWD to lead storm water into the major drains.

4.3 Waste Management System

Sorting of waste from source is being done as shown in Plate 2.

4.3.1 Liquid Waste Handling

The liquid waste handling system is good and does not lead to pollution of the environment.

4.3.2 Record Keeping and Manifest System

There is a record keeping and manifest system for waste management. This will enable the tracking of waste on the estate.

4.3.3 Solid Waste Dumpsite

The solid waste dumpsite looks good and well secured under lock. A permit has been obtained from Edo State Ministry of Environment and Sustainability to operate the solid waste dumpsite which expires October 2020.

It is recommended to:

- Mark the general and recyclable waste bins in offices to encourage people to think more carefully about the waste they are producing.
- Ensure that it is clear as to which bin collects which waste stream.
- Ensure that there is no mix-up of hazardous and/or empty agrochemical containers with general/domestic waste when transferring the wastes to the solid waste dumpsite (SWD).

4.4 Pollution

Considerable provisions have been made to prevent pollution particularly air pollution (source and ambient) at the solid waste dumpsite. It is recommended that environmental monitoring including groundwater, air and leachate analysis be conducted on quarterly basis. This will enable the company to track any potential pollution and contamination at the facility.

4.4.1 Drinking Water Quality

The quality of water supplied from the nearest borehole is good except pH which is acidic (**pH 5.39 – 6.35**). It is however recommended that treatment be done to correct the pH (add potash) of the borehole water to prevent corrosion and material leaching.

4.4.2 Ambient Air Quality

The in-situ determination of the gases showed that, all gaseous emissions including Suspended Particulate Matters (SPM) were within the FMEnv set

limits. However, it is recommended that waste management workers always use appropriate PPE especially the Nose Mask/Respirator.

4.4.3 Noise

The noise levels at the facility including the nearest residential buildings {51.8 – 87.2 dB(A)} are within permissible limits of 90 dB(A) for 8-hours exposure. It is recommended that routine checks be done to monitor noise levels around the solid waste dumpsite.

4.5 Emergency Response/Contingency Plans

There is a well written Emergency Response and Contingency Plans that are properly documented. It has also been submitted to regulatory bodies in Edo State for review and approval.

4.6 Health

4.6.1 Clinic

It is required to:

- *Compile records of industrial incident/near misses and comparative statistical analysis be established for accidents, incidents, and fatalities.*
- *Keep record of dangerous occurrences, incidents and near misses. The record of on-site and off-site accidents should also be kept accurately and reported to the appropriate regulatory authorities.*

4.6.2 Occupational Accidents and Dangerous Occurrences

It is important to always report dangerous occurrences such as near-misses so that incidents and accidents can be mitigated. It is recommended that all dangerous occurrences, incidents, and accidents be reported, and the findings of investigation be utilized in proffering solutions in order to avoid reoccurrence.

4.7 Fire Prevention and Control

It is recommended that the present fire prevention and control measures in place be sustained.

4.8 Monitoring Well

It is desirable that a monitoring well be established at about 100 radius to the solid waste dumpsite and sample be taken for analysis on quarterly basis. This will enable quick tracking of leachate infiltration into groundwater.

4.9 Training, Communication and Reporting

The existing training and education arrangement appear to be good. It is recommended to regularly review the training curriculum and the training should cut across most workplaces.

4.10 Signage

There is quite several signage on the estate especially on waste handling and management. It is recommended workers are educated on the importance of signage especially the message, interpretation, and compliance.

4.11 Industrial Labour Relations

The industrial labour relations of the company are good, and it is recommended to improve on it.

4.12 Corporate Social Responsibility

The CSR of the company would seem to be good and should be sustained. It is recommended that gender development especially for women be included in the development agenda for host communities.

APPENDIX I

LABORATORY ANALYSIS RESULTS (GROUNDWATER QUALITY)

September 2020

Analyst's Certificate

№: 209021

[Institute of Public Analysts of Nigeria Decree 100 of 1992]

Name of Sample:	Groundwater	Project:	Main Estate
Client:	Foremost Development Services Limited, Akute, Ogun State. For: OKOMU Oil Palm Company PLC, Benin City, Edo State.		
Submission Date:	02 September, 2020	Lab No.:	EL/W/2009/32094/32095/32098-32100/32102

Methodology:

Samples of water collected from all the sites were analyzed using Standard methods of water and wastewater analysis (APHA 23rd edition) and HACH methods of analysis of water (12th edition). The parameters examined are as contained in the result Table.

Sampling Locations

S/N	Code	Description of location	Coordinates	
1	OKM _{LL}	Labour line Quarters	N06°24' 38.7"	E005°15' 75.6
2	OKM _{MQ}	Management Quarters	N06°24' 36.4"	E005°16' 25.1
3	OKM _{IITA}	IITA Quarters	N06°24' 52.1"	E005°12' 54.4
4	OKM _{MC}	Mill Complex	N06°24' 19.9"	E005°14' 11.0

Result of Analysis

The result of on-site measurements and laboratory analyses carried out on the water samples collected from the Main Estate while in the same condition as submitted to us is presented in Table 1:

I, the undersigned Public Analyst, OYEDIRAN, L.O. (IPAN NO. 00155[®]), make this certification, as witnessed my hand this 9th day of September 2020.

FEMI OYEDIRAN
INSTITUTE OF PUBLIC ANALYSTS OF NIG.
(ESTABLISHED BY DECREE NO. 100 OF 1992)
PRACTICE LICENCE No: 00155

TABLE 1: GROUNDWATER SAMPLES

PARAMETER/UNIT	NIS554: 2017	OKM _{LL}	OKM _{MQ}	OKM _{IITA}	OKM _{MC}
Appearance	Clear & Colourless	Clear & Colourless	Clear & Colourless	Colourless with Particles	Colourless with Particles
pH @26.2°C	6.5-8.5	5.81	5.69	5.39	6.35
Temperature, °C	Ambient	29.0	25.5	33.0	24.2
Conductivity, µS/cm	1000	17.58	18.60	21.6	12.46
Colour, Pt-Co	15	<1	<1	10	9
Turbidity, NTU	5	0.03	<0.01	0.43	0.95
Total Solids, mg/L	-	8.82	22.26	24.8	6.40
Total Dissolved solids, mg/L	500	8.82	9.26	10.8	6.11
Total Suspended Solids, mg/L	-	<1	13	14	0.29
Total Hardness, mg/L	150	4	4	4	4
Total Alkalinity, mg/L	-	10	10	10	20
Total acidity, mg/L	-	30	40	35	10
Calcium, mg/L	-	<0.1	<0.1	<0.1	0.8
Magnesium, mg/L	20	0.97	0.97	0.97	0.47
Chloride, mg/L	250	3	3	5	1
Nitrate, mg/L	50	0.2	<0.1	0.1	0.2
Nitrite, mg/L	0.2	<0.01	<0.01	<0.01	<0.01
Sulphate, mg/L	100	2	3	2	3
Phosphate, mg/L	-	0.25	2.1	1.85	0.29
Iron (total), mg/L	0.3	0.02	<0.01	<0.01	0.02
Fluoride, mg/L	1.5	<0.1	<0.1	<0.1	<0.1
Lead, mg/L	0.01	<0.001	<0.001	<0.001	<0.001
Arsenic, mg/L	0.01	<0.001	<0.001	<0.001	<0.001
Manganese, mg/L	0.2	<0.001	<0.001	<0.001	<0.001
Copper, mg/L	1.0	<0.001	<0.001	<0.001	<0.001
Cadmium, mg/L	0.03	<0.001	<0.001	<0.001	<0.001
Chromium, mg/L	0.05	<0.001	<0.001	<0.001	<0.001
Hydrogen Sulphide, mg/L	0.05	<0.01	<0.01	<0.01	<0.01
Total coliform count, CFU/mL	10	0	1	0	0
Faecal coliform, <i>E. coli</i>),	CFU/100 mL	0	0	0	0
<i>Clostridium perfringens</i> ,		0	0	0	0
<i>Salmonella/Shigella sp.</i> ,		0	0	0	0
<i>Staphylococcus sp.</i> ,		0	0	0	0
<i>Pseudomonas aureus</i> ,		0	0	0	0
Mould and yeast,		0	6	21	0
Total plate count,		10 ²	3	15	0

APPENDIX II

LABORATORY ANALYSIS RESULTS (AIR QUALITY)

Analyst's Certificate

Nº: AQ/208271

[Institute of Public Analysts of Nigeria Decree 100 of 1992]

Name of Sample	MAIN ESTATE Air Quality
Client	Foremost Development Services Limited For: OKOMU Oil Palm Company PLC, Benin City, Edo State.
Sampling Date	27 August 2020

Methodology:

Sampling and measurement of ambient air quality and noise level were carried out using portable analyzers. Gaseous components of the air were monitored using Mattheson Model IQ 1000 Gas Analyzer to measure the concentration of carbon monoxide (CO), carbon dioxide (CO₂), Sulphur dioxide (SO₂), oxygen, hydrogen sulphide (H₂S) and volatile organic compounds (HNU-PID Monitor). Nitric oxide, NO_x, was determined using BWT gas alert meter. Handheld Aerosol Monitor PPM1055 was used for the measurement of suspended particulate matter while noise level was determined using digital sound level meter (Quest 2500 Sound Level Meter) within and around the facility.

Result and Comments

The result of on-site measurements carried out on the ambient air at the facility is presented in Table 1. Table 2 contains the result of noise level assessment at critical locations.

Result of all the measurements conducted around the facility showed that:

- The ambient air quality was within the regulatory standard as shown by the concentrations of different parameters measured during the audit.
- The ambient noise level around the solid waste dumpsite facility and at the generator house were within the limit of 90 dB(A).

I, the undersigned Public Analyst, OYEDIRAN, L.O. (IPAN NO. 00155®), make this certification, as witnessed my hand this 28th day of August 2020.

FEMI OYEDIRAN
INSTITUTE OF PUBLIC ANALYSTS OF NIG.
(ESTABLISHED BY DECREE NO. 100 OF 1992)
PRACTICE NO. 00155

Result of Air Quality Measurement and Noise Level at the Solid Waste Dumpsite during the Audit.

Location	Main Powerhouse (1100, 1100 & 1650kVA)	IITA Residential Quarters	Solid Waste Dumpsite	FMEEnv. Limit
Coordinate	N06024.462'	N06024.462'	N06°24' 52.1"	
	E005015.653'	E005015.653'	E005°12'54.4"	
Elevation (m)	61	61	72	
Noise, dB(A)	87.2	54.6	51.8	90
SPM (µg/m ³)	160	50	50	250
Humidity (%)	75.9	90.4	92.6	Ambient
Temperature (°C)	27.8	25.2	25.0	Ambient
Carbon monoxide, ppm	<1.0	<1.0	<1.0	10-20
Carbon dioxide, %	0.40	<0.1	<0.1	Ambient
Hydrogen sulphide, ppm	<0.1	<0.1	<0.1	NS
Hydrocarbon, %	<0.1	<0.1	<0.1	NS
Oxygen, %	21.0	21.0	21.0	21.0
Sulphur dioxide, ppm	<0.01	<0.01	<0.01	0.01
Nitrogen oxides, ppm	<0.01	<0.01	<0.01	0.04 – 0.06
VOC, ppm	<0.01	<0.01	<0.01	NS

VOC = Volatile organic compounds; SPM = Suspended particulate matter; NS = Not Specified.



APPENDIX III

LABORATORY ANALYSIS RESULTS (LEACHATE QUALITY)

Analyst's Certificate

No:1912123

[Institute of Public Analysts of Nigeria Decree 100 of 1992]

Name of Sample:	Leachate Samples	Project:	Solid Waste Dumpsite
Client:	Foremost Development Services Limited		
	For: OKOMU Nig. Plc Okomu-Udo, Edo State.		
Submission Date:	31 August 2020	Lab No.:	EL/W/1912/30814-15

Methodology:

Samples of Leachate (2 Nos.) collected from solid waste dumpsite were analyzed using Standard methods of water and wastewater analysis (APHA, 23rd edition) and HACH methods of analysis of water (12th edition). The parameters examined are as contained in the result Table.

Sampling Locations

S/N	Code	Location	Coordinates	
			N	E
1	OKM _{SWD1}	Point 1	N06 ⁰ 24' 52.1"	E005 ⁰ 12'54.4"
2	OKM _{SWD2}	Point 2	E005 ⁰ 12'54.4"	E005 ⁰ 12'54.4"

Result of Analysis

The result of on-site measurements and laboratory analysis carried out on the water samples collected from OKOMU Oil while in the same condition as submitted to us is presented in Table 1:

Comments

Based on the result of analysis conducted on the samples:

- The pH of leachate sample was within the Standard of 6.0-9.0
- The conductivity and corresponding dissolved solids were above the limit.
- The colour, turbidity, suspended solids, BOD and COD were also higher than their respective limits in both samples
- Other parameters conformed to the standard.

I, the undersigned Public Analyst, OYEDIRAN, L.O. (IPAN NO. 00155®), make this certification, as witnessed my hand this 11th day of September 2020.

FEMI OYEDIRAN
INSTITUTE OF PUBLIC ANALYSTS OF NIG.
(ESTABLISHED BY DECREE NO. 100 OF 1992)
PRACTICE CERTIFICATE No: 00155

Table 1: Result of Analysis

S/N	Parameters	Methods	Results	FMEnv Limit
1	pH	ASTM D1293-18	6.82	6.5-9.0
2	Temperature	EPA 79	30.4	<40
3	Electrical Conductivity	ASTM D1125-14	320	NS
4	TDS	ASTM D868	120	2000
5	Turbidity	ASTM D7315-17	30.70	NS
6	TSS	ASTM D1868	4.40	30
7	THC	ASTM D3921	<0.04	10
8	DO	ASTM D888-92(96)	1.90	NS
9	BOD	APHA-507	68.20	80
10	COD	ASTM D1252-95	95.40	50
11	Chloride	ASTM D512-89(96)	138.0	600
12	Alkalinity	ASTM D1067-92	142.70	NS
13	NO ₃	ASTM D3889-90	4.25	20
14	NO ₂	ASTM D3867-09	2.55	NS
15	SO ₄	APHA 427C	9.04/	500
16	NH ₄ -N	ASTM D1426-93	12.06	NS
17	PO ₄	ASTM D515-88	1.11	5
18	Na	ASTM D5863-2016	28.14	NS
19	K	ASTM D2791-93	13.74	NS
20	Ca	ASTM D511-14	45.53	200
21	Mg	ASTM D511-14	2.33	200
22	Total Hardness	ASTM D511-14	123.3	NS
23	CN	EPA 1914	<0.01	0.1
24	OG	ASTM D3921	<1.0	10
25	Pb	ASTM D4834-03(14)	0.085	<1.0
26	Cd	ASTM D3557-95	<0.001	<1.0
27	Mn	ASTM D858-95	0.076	5
28	Cr	ASTM D1687-92	0.024	<1.0
29	Cu	ASTM D858-17	0.056	<1.0
30	Fe	ASTM D1068-15	0.974	20
31	As	ASTM D2972-97	<0.001	0.1
32	Hg	ASTM D7623-10(15)	<0.001	0.05
33	Dioxin,	GC FID	<0.001	NS
34	Pesticide (PCBs),	GC FID	<0.001	0.003

NS - Not Specified

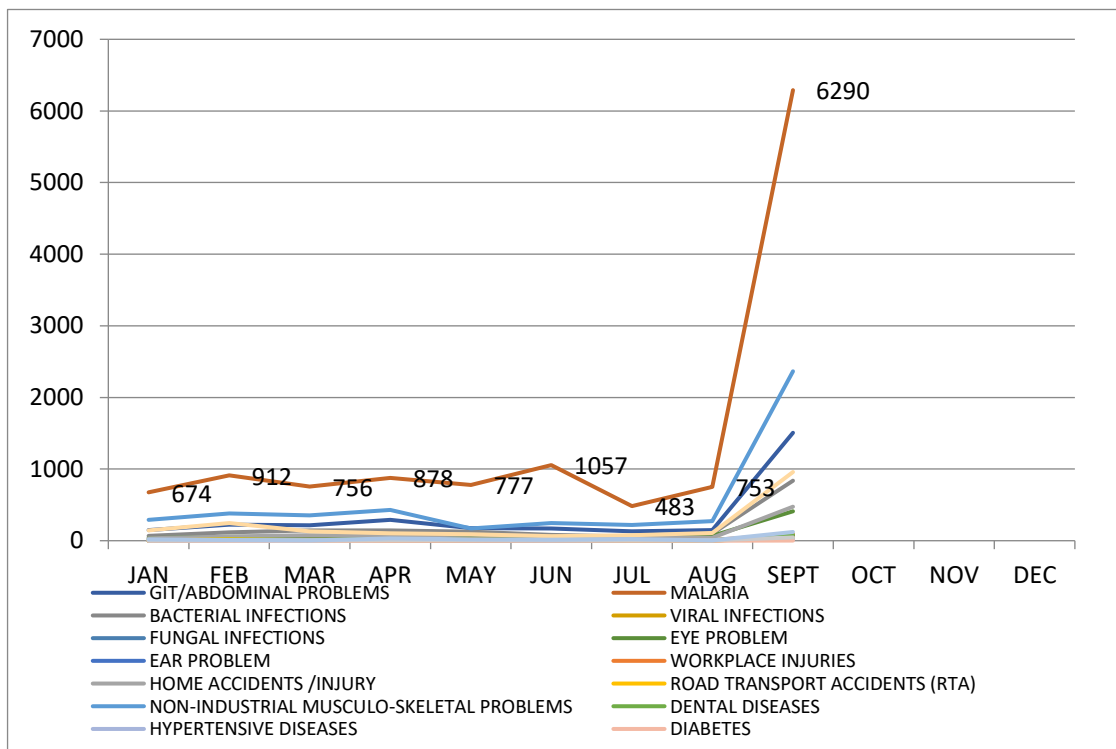


APPENDIX IV

MEDICAL RECORDS (JULY-DECEMBER 2019)


STATISTICS OF PREVALENT AILMENTS (January - February 2020)

AILMENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	TOTAL
GIT/ABDOMINAL PROBLEMS	148	224	215	292	177	171	131	149	1507
MALARIA	674	912	756	878	777	1057	483	753	6290
BACTERIAL INFECTIONS	70	117	142	146	124	81	58	100	838
VIRAL INFECTIONS	0	8	32	15	4	2	2	0	63
FUNGAL INFECTIONS	5	10	10	13	11	9	7	5	70
SKIN INFECTIONS	43	74	63	94	108	52	60	79	573
EYE PROBLEM	35	54	56	73	52	40	33	68	411
EAR PROBLEM	7	13	14	5	6	3	6	2	56
WORKPLACE INJURIES	5	16	12	13	18	9	7	10	90
HOME ACCIDENTS /INJURY	34	58	77	66	86	64	50	40	475
ROAD TRANSPORT ACCIDENTS (RTA)	2	22	5	4	3	7	1	2	46
NON-INDUSTRIAL MUSCULO-SKELETAL PROBLEMS	291	379	353	429	171	247	222	273	2365
DENTAL DISEASES	4	13	13	14	12	10	9	7	82
HYPERTENSIVE DISEASES	0	3	3	6	0	1	6	5	24
DIABETES	0	0	0	0	1	1	0	0	2
SURGICAL PATIENTS	3	6	4	10	8	6	4	5	46
RESPIRATORY PROBLEMS	143	246	131	103	90	63	77	106	959
OTHER	18	11	4	31	17	12	24	5	122
TOTAL									14019



APPENDIX V

WASTE AND POLLUTION MANAGEMENT PROCEDURE (REFERENCE GP 33)

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Action	Name	Function	Date	Signature
Prepared by	Mikle George	HSE Manager		
Verified by	Mikle George	HSE Manager		
Approved by	Graham Hefer	Managing Director		



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1. INTRODUCTION

This procedure seeks to ensure the appropriate handling, storage and disposal of waste generated at OOPC. It is aimed at waste avoidance and minimization which are achieved with the following objectives:

- identification of the types and quantities of waste that would be generated and the areas in which waste will be stored prior to removal;
- standards and performance measures for dealing with this waste;

Based on federal, state and local regulations, waste is classified into three main categories:

- non-hazardous waste: does not pose any danger to humans and environment (e.g. household garbage);
- hazardous waste: waste of this type either contains leachable toxic components or has common hazardous properties such as reactivity or ignitability;
- Special waste: wastes of this type vary in their properties and are regulated with specific guidelines (example includes medical and radioactive wastes).

The bulk of waste generated by OOPC is organic waste which is non-hazardous in nature. Others include empty agrochemical containers, spent oil, used batteries (hazardous), glass, plastic, plantation polythene bags, mixed paper, and medical waste. 100% of solid waste generated by OOPC is disposed at the dump site with the exception of medical waste which is regarded as a special waste and thus handled separately.


1.1. WASTE STREAMS AT OOPC

1.1.1 SOLID WASTE

This includes household waste (domestic waste) generated from OOPC residential areas. This waste is mostly non-hazardous in nature. Others include glasses, plastics, plantation polythene bags, mixed papers, and medical waste.

1.1.2 HAZARDOUS SUBSTANCES

OOPC generates quantities of hazardous waste. Most of these wastes are generated by the plantation, workshop, estate department and quality control laboratories. Although the types of waste vary, the most common include empty agrochemical containers, spent oil, batteries containing lithium, nickel and sulphuric acid (H₂SO₄). Where there are expired agro-chemicals and laboratory chemicals, expert advice about their disposal must be from the relevant state and federal regulatory authorities, and/or companies that manufacture these items.

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1.1.3 MEDICAL WASTE (SPECIAL WASTE)

These are wastes produced by the Clinic (needles, syringes and pathological waste). The clinic disposes these wastes by burning them inside the boiler at the oil mill.

1.1.4 NON-SOLID WASTE

These include liquid and gaseous wastes that are produced from oil mill and rubber factory processes.

2. SCOPE

This waste management plan describes how OOPC manages all its wastes and ensure compliance to necessary requirements of ISO 14001:2004, OHSAS 18001:2007 and RSPO Criteria 4.6 and 5.3


3. ABBREVIATIONS

MD	Managing Director
HSEM	Health, Safety & Environment Manager
OOPC	Okomu Oil Palm Company
COD	Chemical Oxygen Demand
BOD	Biochemical Oxygen Demand
PM	Particulate Matter
POME	Palm Oil Mill Effluent
NESREA	National Environmental Standards & Regulations Enforcement Agency

4. DEFINITIONS

Roundtable on Sustainable Palm Oil (RSPO): an international not-for-profit association founded in April 2004. It is a membership organization, open to all major players along the supply chain. The RSPO came as a timely intervention to negate the undue concerns on palm oil cultivation in a sustainable way to meet the growing demand for vegetable oil, especially against the background of the growing concerns by environmentalists and consumers, amongst other groups, on the negative impact of the oil palm industry on the environment. OOPC has declared its willingness to be part of the platform to drive the processes for the implementation and interpretation of the RSPO Principles and Criteria.

pH: measure of how acidic/basic a liquid is. The range varies between 0 - 14, with 7 being neutral. A pH of less than 7 indicates acidic whilst a pH of greater than 7 indicates a basic environment.

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5. LEGAL REQUIREMENTS

The National legislation applicable to this project includes:

- The National Policy On Environment, 1999
- National Guidelines and Standards for Environmental pollution Control in Nigeria, 1991
- National Effluent Limitations Regulations S.I.8, 1991
- National guidelines for Environmental Audit in Nigeria. 1999
- National Guidelines on Environmental Management System in Nigeria 1999
- National Environmental Standards and Regulations Enforcement Agency (NESREA 2007) - National Environmental Regulations, 2009. S.I No. 28, 29, 17, 20, and 23.
- Waste Management and Hazardous Waste Regulations S.I.15, 1991
- National Policy on Renewable Energy Development

6. RESPONSIBILITIES

- Estate Department is responsible for moving solid waste from disposal points to the dumpsites.
- HSEM shall monitor compliance with this procedure and continuously assess methods of effective waste/pollution management.


7. PROCEDURE

7.1. Basic Principles Of Waste & Pollution Management

In order to achieve its waste avoidance and minimization objectives, OOPC encourages its employees to follow the hierarchy below of waste management principles in all aspects of their operations:

- Reduce
- Reuse
- Recycle/ Reprocess
- Recover

Thoughtful use of all materials and using the basic principle of waste and pollution management is good for the environment and good for business. If an item can be used more than once, it will be used as such and if a used item can be put to another use, it will be recycled. OOPC developed a system to record waste types and quantities for all waste streams. This will help demonstrate a step towards better waste management, as it will allow the establishment of standard/normal waste levels. Records of waste quantities will allow OOPC to assess the performance of its operations to avoid and minimize waste. The avoidance of printing of unnecessary documents/emails and reusing the reverse side of paper are prime examples of our commitment to avoiding and minimizing waste.

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7.2. Waste & Pollution Prevention And Control

Good waste and pollution prevention and control practices in the industry focus on the following main areas:

- Reduction of product losses through strong and active production controls, including continuous sampling and measuring of key production parameters allowing production losses to be identified and reduced, thus reducing the waste load.
- Providing dust extractors, where applicable, to maintain a clean workplace, recover product, and control air emissions.
- By-products recycling and sale (see below).
- Re-use of materials (e.g. empty fertilizer bags).

7.3. Waste Disposal & Duty of Care

OOPC has a duty of care to take all reasonable measures to:

- Ensure that all waste is stored and disposed of responsibly.
- Ensure that waste is only handled or dealt with by individuals or departments that are authorized to deal with it.
- Ensure that the use of fire to dispose waste is avoided.

7.4. Waste Generation & Disposal


7.4.1 SOLID WASTE

The main solid wastes generated and the methods of disposal are as follows:

- Used oil filters (excess oil drained off before disposal). Collected by a government approved collector/organization.



- Empty fruit bunches (EFB). Returned to the plantation and used as a mulch.

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- Fibre: Used as boiler fuel and in the field.
- Shell: Used as boiler fuel.
- Boiler ash: Used in the field.
- Clinker: Used as road material
- Calyx/Leaf from FFB conveyor: Used in the field
- Tricanter Waste: Used in the field
- Scrap metal: Stored at designated locations and sold to dealers for recycling. The sale will be handled by internal audit Unit.
- Empty fertilizer bags/Cellophane: Triple rinsed and then reused for harvesting operations.
- Empty agrochemical containers are triple rinsed, punched and then sent to the allocated area at the dumpsite awaiting final evacuation by the suppliers/manufactures. Bigger agrochemical containers are used for might however be used as temporary receptacles during spraying activities.
- Used tyres: Stored at designated locations and sold to dealers for recycling.
- Expired batteries. Stored at designated locations and sold to dealers for recycling.
- Photocopier Toner and Printer ink cartridges: Stored at designated locations and sold to dealers for recycling.
- Redundant Electronics: Stored at designated locations and sold for reuse.
- Used spill kits: Collected by government approved collector/organization
- Solid waste: Collected on a routine basis and disposed of at designated dumping sites. A bulldozer or pay loader will be used from time to time at dumping sites to push waste inwards for more space at the discharge point.
- Electric bulbs/fluorescent tubes: Stored at designated locations (dumpsite) and sold to approved collectors.
- Saw dusts: reused as spill kit and collected by approve waste collector.
- Biohazards and medical sharps from Clinic: disposed of in the incinerator.
- Waste papers: stored in the dumpsite.
- Glass and bottles: Stored at designated locations at dumpsite and sold to approved dealers for recycling.

The location of designated dumping sites was carefully chosen to ensure that it is not near a residential area and not near any water courses or bodies of water. Designated dumping sites are clearly demarcated and access restricted for designated staff only.

7.4.2 LIQUID WASTE

The main liquid waste generated is the palm oil mill effluent (POME) generated by the processing of fresh fruit bunches. Liquid process wastes are passed through sludge tanks and fat traps to recover oil before being discharged into an effluent lagoon for treatment and ultimate reuse in plantation. POME will be analyzed on a quarterly basis for the following parameters, for which the NESREA (see legal requirements) limits are indicated:

- pH (range at final discharge 6.0 -9.0)
- BOD (maximum at final discharge 30 mg/l)
- COD (maximum at final discharge 80 mg/l)

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- Suspended solids (maximum at final discharge 30 mg/l)
- Oil & grease (maximum at final discharge 10 mg/l)

Monitoring data will be analyzed and reviewed at regular intervals and compared with the operating standards so that any necessary corrective actions can be taken. Records of monitoring results are kept in file. The results will be reported to the responsible authorities and relevant parties, as required.

Used oil from vehicles and maintenance activities is stored in tanks and drums in a specified area to be sold to dealers for appropriate recycling and disposal.

7.4.3 GASEOUS WASTE


The main sources of air emissions are from the flue gases from the boilers, machineries, vehicles and heavy duty machines and Generator sets. These contain amount of carbon monoxide, carbon dioxide and nitrogen oxides. There is also particulate matter (unburned fiber and shell).

Boilers are built with equipment used to remove as much unburned particulate matter as possible.

Emissions guidelines

Emissions levels for the design and operation of each project will be established through the environmental assessment (EA) process on the basis of national legislation. The guidelines below present emissions levels acceptable to the World Bank. Concentrations of contaminants emitted from the stacks of large boilers, furnaces, incinerators, and electrical generating equipment should not exceed the following limits (milligrams per normal cubic meter) as per National Air Pollution Standards 1991. This will be monitored quarterly.

Pollutants	Ambient Limits	Limit from stationary sources(for 24 hrs)
Particulates	250 mg/m ³ (Daily average of daily values 1 hour)	0.15-0.5 mg/m ³
Sulphur dioxides (SO ₂)	250 mg/m ³ (Daily average of daily values 1 hour)	0.15-0.5 mg/m ³
Carbon monoxide	10 ppm (11.4 mg/m ³)- 20 ppm (22.8mg/m ³) (Daily average of hourly values 8-hours)	1.0 – 5.0 mg/m ³
Nitrogen dioxides (NO ₂)	0.04 ppm - 0.06 ppm (75.0– 113 mg/m ³) Daily average of 1-hourly values (range)	0.004 – 0.1 mg/m ³

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7.4.4 LITTER

In order to reduce litter being dropped in public and working areas, litter bins are put in place. The litter bins will be emptied and litter disposed on a scheduled basis (see days of waste collection in OOPC pamphlet). Weight of the litter will be taken to estimate the total amount going to the dumpsite and calculated annually for total waste disposed at the dump site. The weight estimation shall be conducted at the weighbridge and the documented weight shall be kept for record keeping at HSE department.

7.4.5 DUST

Dust from roads may present an environmental hazard, particularly to those working or living near busy roads. Mitigation measures include:

- Enforcing speed limits (20 kph in residential areas and industrial).
- Diverting traffic to avoid residential and industrial areas.
- Sealing roads in residential and industrial areas.
- Watering of main roads during the dry season.

7.4.6 ODOR

Odor from operations can usually be prevented through good housekeeping. When planning the location of residential sites, odor from operations should be considered. Thus, the dumpsites are located at least 500m from existing residential areas. The rubber factory effluent pond is about 500m from the rubber estate while the oil mill's effluent lagoon is approximately 1000m from the nearest residential quarters.


7.4.7 NOISE

Noise from operations may present an environmental hazard, particularly for those working near noise generating machinery and equipment. Mitigation measures include:

- Installing noise reducing equipment such as silencers and mufflers.
- Maintaining machinery and equipment to minimize noise levels.
- Putting noisy machinery and equipment inside a purpose-built building that reduces the effects of the noise.
- Redesigning noisy machinery and equipment to reduce noise.
- Ear plugs.

7.5. Waste Tracking System

OOPC currently only tracks wastes that are of dire consequences to the environment and safety of its personnel. To this end, chemical containers used at plantation are tracked from the time it leaves the store to the dumpsite. ALL containers that leave the store should be returned to the store handler after use who must immediately record the total number given out and received (See Appendix III). All used chemical containers must be triple rinsed and the

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containers returned to the store handler after perforating. Finally, the chemical containers are taken to the dumpsite awaiting collection by the suppliers. The water from this is poured into the knapsack for spraying. The store handler must then record the amount of containers sent to the dumpsite which must correspond to the amount entered by the dumpsite attendant after receipt by him at the dumpsite.

Effluent volume is monitored daily with the aid of a flow meter installed at the discharge point at the Oil mill and rubber factory for monitoring the amount of effluent released to the lagoon or pond. A monthly data sheet is generated (See Appendix III).

Scheduled waste such as Used Oil Filters, Used Oil, Biohazardous materials, used batteries, tyres, toners etc must be inventoried departmentally on a monthly basis on OOPC/Form 2.6 and record sent to HSE Manager for collation.

8. RECORDS


- Quarterly Inspection Report
- OOPC/Form 2.1
- OOPC/Form 2.5
- OOPC/Form 2.6
- Weighbridge Ticket

9. REFERENCE

- RSPO Criteria 4.6 and 5.3
- FSC Criteria 6.7
- IFC (2012) Performance Standard 3: Resource Efficiency and Pollution Prevention
- ISO 14001:2015 Clause 5.2


10. REVISION STATUS

Rev.	Date	Details
0	09/02/16	Initial Release
1	06/04/17	Addition in Section 8 – Records Change ISO “14001:2004 Clause 4.2” to ISO 14001:2015 Clause 5.2
2	10/05/18	Addition of sentences in §7.4.1, §7.4.4 and §7.5
3	13/07/19	Addition in 7.4.1 Waste generation and disposal Addition in 7.4.3 Gaseous Waste Addition in Appendix I and III


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APPENDIX I: WASTE MANAGEMENT PLANS AT OKOMU OIL PALM COMPANY


S/No.	TYPE OF WASTE	STORAGE SYSTEM	VOLUME GENERATED	TRANSPORTATION / REMOVAL RATE	FINAL DISPOSAL	REMARKS
1.	Household Organic waste: <ul style="list-style-type: none"> Left- over Food Organic residue (garden waste) 	<ul style="list-style-type: none"> Waste bins 	<ul style="list-style-type: none"> Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> Tractor / Daily 	<ul style="list-style-type: none"> Solid waste dumpsite Plantation field 	
	Household Inorganic Waste: <ul style="list-style-type: none"> Plastic Polythene bags e.g. pure water sachets Glass wares Empty cans Paper trash 	<ul style="list-style-type: none"> Waste bins (Sorting necessary) 	<ul style="list-style-type: none"> Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> Tractor / Twice weekly 	<ul style="list-style-type: none"> Solid waste dumpsite 	
2.	Plantation Organic waste: <ul style="list-style-type: none"> Palm and rubber leaves, shrubs, weeds 	<ul style="list-style-type: none"> None 	N/A	<ul style="list-style-type: none"> Ad hoc 	<ul style="list-style-type: none"> Plantation field 	
	Plantation Inorganic waste: <ul style="list-style-type: none"> Polythene bags Damaged latex cups 	<ul style="list-style-type: none"> Kept in the store. 	<ul style="list-style-type: none"> Waste inventory necessary for quantity 	<ul style="list-style-type: none"> Tractor / As required 	<ul style="list-style-type: none"> Dump site (To be reused or sold) 	
	Plantation Hazardous waste: <ul style="list-style-type: none"> Empty agrochemical containers. Fertilizer bags Expired agrochemicals 	<ul style="list-style-type: none"> Collected and kept in the store 	<ul style="list-style-type: none"> Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> As required 	<ul style="list-style-type: none"> Taken to dumpsite and taken away by the supplier Fertilizer bags are reused 	

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3.	Palm Oil Mill (POM) waste: <ul style="list-style-type: none"> • Palm Oil Mill Effluent • Sludge • Empty Fruit Bunches (EFB) • Fibres • Kernel shell • Boiler ash • Damaged/Faulty banga plastic containers 	<ul style="list-style-type: none"> • Palm Oil Mill premises • The damaged/faulty plastic containers are kept in the store 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Pipe lines for the POME / simultaneously with production • Tractor for EFB, fibres, boiler ash, kernel shell and sludge / As required 	<ul style="list-style-type: none"> • Effluent Lagoon for the POME • EFB as mulch in the field • Fibres and Kernel shell used to fire the boiler. • Damaged banga container returned to supplier. • Boiler Ash used for road maintenance 	
4.	Rubber Factory waste: <ul style="list-style-type: none"> • Rubber Effluent • Rubber sludge • Low quality crump rubber • Polythene bags • Damaged pellets 	<ul style="list-style-type: none"> • No storage • Decantation pit • Different bins for different rubber waste • Damaged pellets and polythene bags are stored in the factory 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Pipe line for the rubber effluent simultaneously with production • None for low quality rubber and damaged pellets 	<ul style="list-style-type: none"> • Effluent pond • Low quality rubber is recycled • Rubber sludge is taken to the plantation field as manure 	

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5.	Laboratory waste (Hazardous): <ul style="list-style-type: none"> • Used chemicals • Empty chemical containers • Glassware 	<ul style="list-style-type: none"> • Used chemicals are channeled to a specially designed soak away pit • Empty chemical containers and expired ones are well secured waiting for evacuation 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Tractor / As required 	<ul style="list-style-type: none"> • Dumpsite and taken away by the supplier • Glassware taken to the solid dumpsite 	
6.	Workshop Hazardous waste: <ul style="list-style-type: none"> • Spent oil • Used oil filters • Empty paint containers • Condemn batteries 	<ul style="list-style-type: none"> • Spent oil is kept in drums inside the workshop (special mgt system in place) 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Tractors taking the drums from different locations / As required 	<ul style="list-style-type: none"> • Used oil filters and spent oil are sold • Empty paint cans are collected by supplier and reused 	
	Non-hazardous waste: <ul style="list-style-type: none"> • Scrap metals • Metal chips • Tyres • Paper 	<ul style="list-style-type: none"> • Scrap yard for scrap metals including tyres, batteries 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Tractor 	<ul style="list-style-type: none"> • Scraps are sold • Tyres are sold • Paper to the dumpsite 	
7.	Medical waste: <ul style="list-style-type: none"> • Needles and syringes • Pathological waste 	<ul style="list-style-type: none"> • Pedal waste bin 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Clinic van 	<ul style="list-style-type: none"> • Boiler 	<ul style="list-style-type: none"> • Medical wastes are classified as special waste that requires special

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8.	Office waste: <ul style="list-style-type: none"> • Paper • Computer hardware and accessories • Plastic bottles • Polythene bags and wrappers 	<ul style="list-style-type: none"> • Different waste bins. (Sorting is necessary) 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Tractor/ Everyday 	<ul style="list-style-type: none"> • Solid dumpsite 	<ul style="list-style-type: none"> • Computer hardware and accessories are hazardous wastes
9.	Estate Waste: <ul style="list-style-type: none"> • Bulbs and fluorescent tube • Construction wastes and trash(empty paint cans) • Saw dust • Metal and plastic scraps (machines, air conditions, fridge etc) 	<ul style="list-style-type: none"> • Waste bin • Spill kit bins • Scrap yard 	<ul style="list-style-type: none"> • Waste inventory necessary for quantity generated 	<ul style="list-style-type: none"> • Tractor / Twice weekly • Collected by various departments for reuse • Tractor / Twice weekly 	<ul style="list-style-type: none"> • Solid dumpsite • Collected by various departments for reuse • Dumpsite and scrap yard 	<ul style="list-style-type: none"> • Bulbs and fluorescent tube are hazardous waste • Saw dusts are reusable material. • AC/Fridges sold to staff and others for reuse.

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APPENDIX II

WASTE TREATMENT FACILITIES

1. Solid waste dumpsite
2. Effluent treatment lagoon and pond
3. Scrap yard
4. Boiler
5. Plantation field

MEANS OF WASTE STORAGE AND COLLECTION


1. Waste bins
2. Collection points
3. Tractor
4. Pipe lines
5. Clinic Van

ENERGY REQUIREMENTS

1. AGO
2. Electricity

OCCUPATIONAL HEALTH REQUIREMENTS (PPE)

1. Waste collectors and Waste managers

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APPENDIX III: WASTE INVENTORY AND TRACKING SYSTEM

1. EMPTY CHEMICAL CONTAINERS (See OOPC/Form 2.1):

All chemical containers are been tracked using the table below:

Date	No of Containers Out of store	No of Containers returned to store handler after washing	No of Containers to Dumpsite	Dumpsite Attendant Sign

2. Palm Oil Mill Effluent (POME) and Rubber Effluent

MONTH		MONTH		MONTH		MONTH	
DATE	READING	DATE	READING	DATE	READING	DATE	READING

3. Scheduled Waste Inventory Form OOPC/Form 2.6

Department:

Month/Year:/.....

To be filled in and submitted to HSE department every month

Type of waste material	Unit	Quantity generated		Quantity disposed off		Site of disposal and remarks if any.
		This month	To-date	This month	To-date	
Used Oil Filters						
Used Oil/Lubricants						
Medical Sharps						
Bio hazardous materials/Clinical waste						
Empty Paint Containers						
Condemned Vehicle Batteries						
Used Alkaline Batteries (small types)						
E-waste (Electronics Waste)						
Expired Chemicals/Pesticides						
Tyres						
Toners/Ink Cartridges						
Scrap Metals						
Empty fertilizer/Nursery Bags						

APPENDIX VI

ISO CERTIFICATIONS (EMS, QMS AND OHSMS)

BUREAU VERITAS
Certification



THE OKOMU OIL PALM COMPANY PLC

OKOMU-UDO, OVIA SOUTH WEST LOCAL GOVERNMENT AREA, EDO STATE.

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 14001:2015

Scope of certification

THE PRODUCTION OF RAW PALM OIL (SPO) AND PALM KERNEL OIL (PKO), THE PROCESSING OF RAW RUBBER INTO DRY RUBBER BALES, THE EXPORTATION OF PROCESSED RUBBER TO THE CUSTOMERS, ALL SUPPORT PROCESSES TO REALISE THE ABOVE ACTIVITIES.

Original cycle start date: **28-JUL-2014**

Expiry date of previous cycle: **27-JUL-2017**

Certification / Recertification Audit date: **13-JUL-2017**

Certification / Recertification cycle start date: **24-OCT-2017**

Subject to the continued satisfactory operation of the organization's Management System, this Certificate expires on: **27-JUL-2020**

Certificate No. IND18.5329 U/E

Version: No.1 Revision date: 28-OCT-2018

Certification body address: **5th Floor, 66 Prescott Street, London E1 8HG, United Kingdom**

Local office: **11, Niger Street, Parkview, Ikoyi Lagos, Nigeria.**

BUREAU VERITAS
Certification



0008

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: **+2348099904340.**

BUREAU VERITAS
Certification



THE OKOMU OIL PALM COMPANY PLC

OKOMU-UDO OVIA SOUTH-WEST LOCAL GOVERNMENT AREA, EDO STATE, NIGERIA.

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

THE EXPLOITATION OF A PALM PLANTATION, THE EXPLOITATION OF RAW PALM OIL (CPO) AND PALM KERNEL OIL (PKO), EXPLOITATION OF RUBBER PLANTATION, PROCESSING OF RAW RUBBER INTO DRY RUBBER BALES, EXPORTATION OF PROCESSED RUBBER TO THE CUSTOMER

Original cycle start date:	04-Jun-2012
Expiry date of previous cycle:	03-Jun-2018
Certification / Recertification Audit date:	06-Jun-2018
Certification / Recertification cycle start date:	24-Oct2018

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **03-Jun-2021**

Certificate No. IND 18.6495 U/Q Version: **No.1** Revision date: **24-Oct-2018**

Certification body address: **5th Floor, 66 Prescott Street, London E1 8HG, United Kingdom**

Local office: **11, Niger Street, Parkview, Ikoyi Lagos, Nigeria.**



0008

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: **+234 1 454 7294, +234-8099904340**

BUREAU VERITAS
Certification



THE OKOMU OIL PALM COMPANY PLC

OKOMU-UDO, OVIA SOUTH WEST LOCAL GOVERNMENT AREA, EDO STATE.

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

OHSAS 18001:2007

Scope of certification

THE PRODUCTION OF RAW PALM OIL (SPO) AND PALM KERNEL OIL (PKO), THE PROCESSING OF RAW RUBBER INTO DRY RUBBER BALES, THE EXPORTATION OF PROCESSED RUBBER TO THE CUSTOMERS, ALL SUPPORT PROCESSES TO REALISE THE ABOVE ACTIVITIES.

Original cycle start date: **03-MAR-2017**

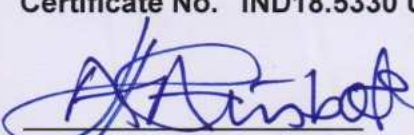
Expiry date of previous cycle: **NA**

Certification / Recertification Audit date: **04-NOV-2016**

Certification / Recertification cycle start date: **15-MAR-2017**

Subject to the continued satisfactory operation of the organization's Management System, this Certificate expires on: **14-MAR-2020**

Certificate No. IND18.5330 U/HS **Version: No.1** **Revision date: 25-OCT-2018**


Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: 11, Niger Street, Parkview, Ikoyi Lagos, Nigeria.

BUREAU VERITAS
Certification



0008

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: **+2348099904340**.

APPENDIX VII

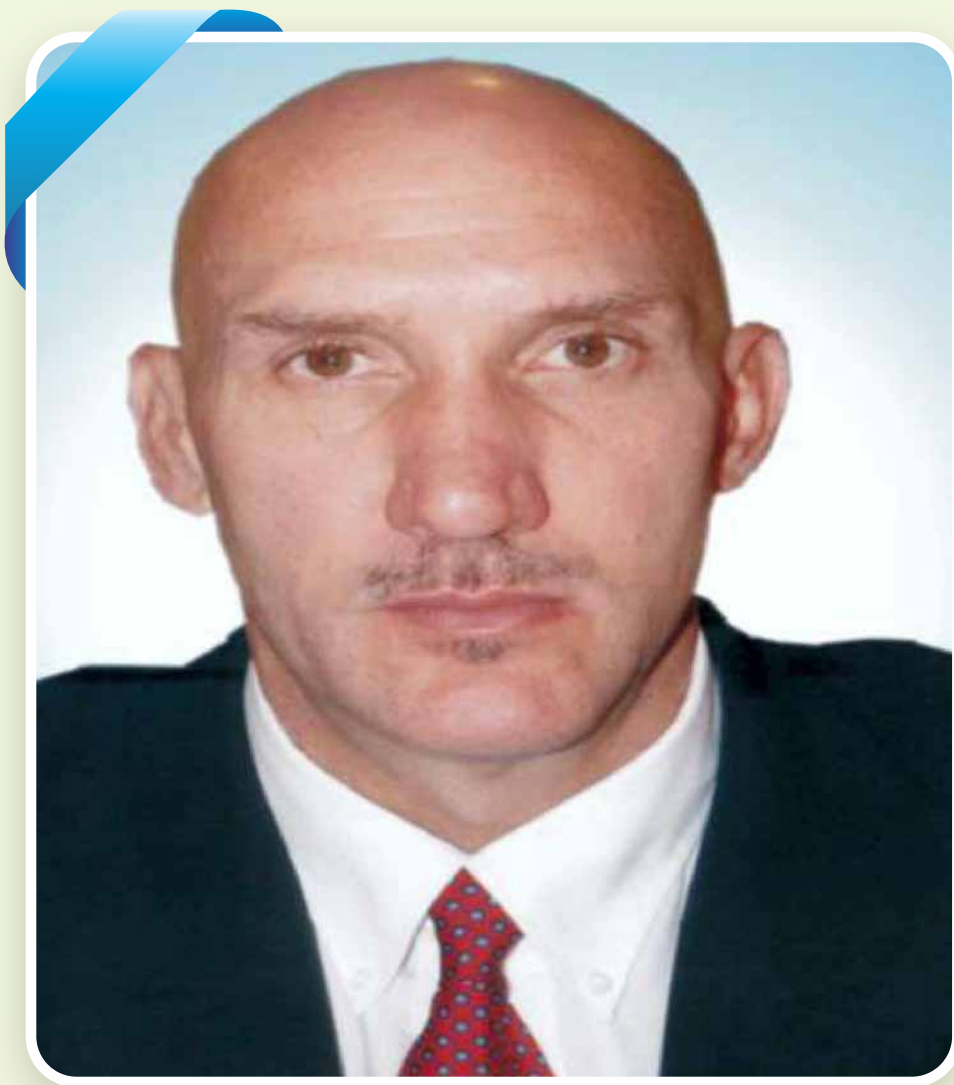
CORPORATE SOCIAL RESPONSIBILITY (CSR) TO HOST COMMUNITY

THE BOARD CHAIRMAN



Mr. G. Oyebode MFR
Chairman

THE MANAGING DIRECTOR



Dr. G. D. Hefer

HISTORY OF OKOMU

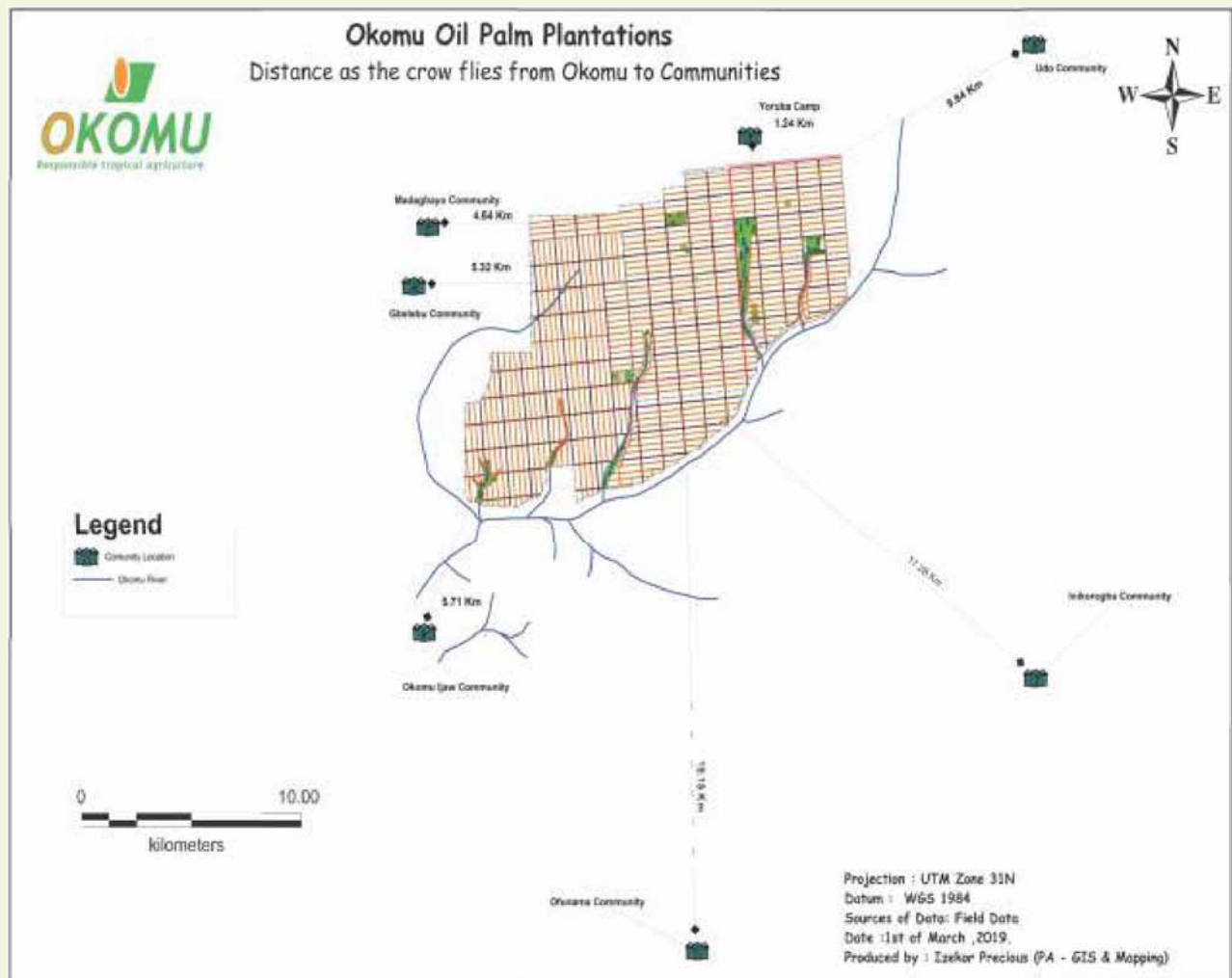


ABRIDGED HISTORY OF THE OKOMU OIL PALM COMPANY PLC

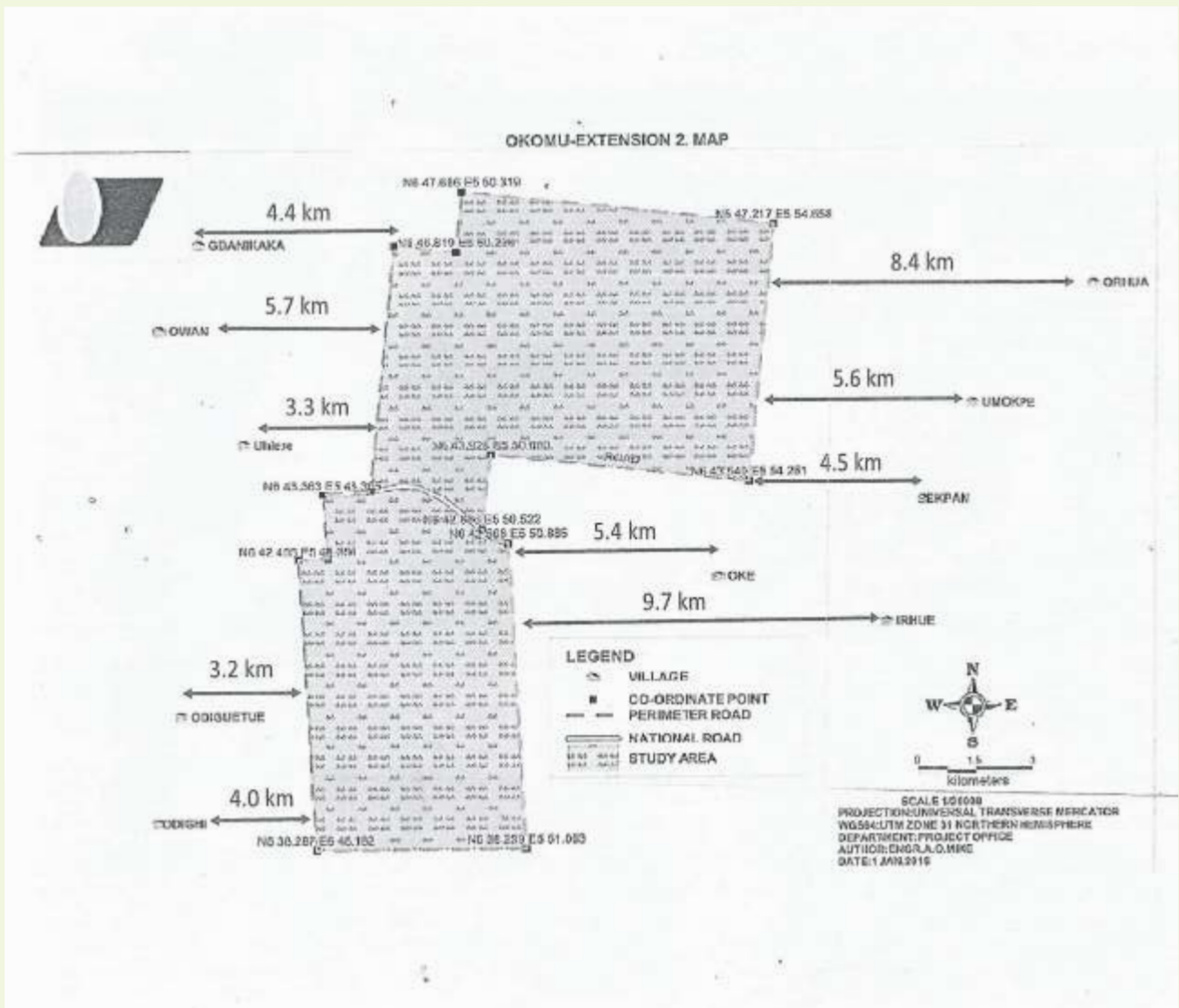
- * The Okomu Oil Palm Company was established in 1976 as a Federal Government pilot project
- * At inception, the pilot project covered a surveyed area of 15,580 hectares of Government de-reserved forest reserve
- * It was then officially incorporated on December 3, 1979 as a limited liability company by the Federal Government.
- * By December 31, 1989, 5,055 hectares of the estate had been planted and other critical infrastructure such as staff quarters, schools and clinics were built.
- * In 1990, the Technical Committee on Privatisation and Commercialisation (TCPC) privatized The Okomu Oil Palm Company on behalf of the Federal Government of Nigeria and, through an initial public offering (IPO), shares were sold to the public and the company was duly registered on the Nigerian Stock Exchange.
- * In 2001 the company obtained another 6116 ha which is now known as Extension 1
- * Responding to the Government's change in policy from a solely crude oil based economy to an agro based one, the company in 2014 further expanded its operations which culminated in the acquisition of 11,416 ha of land in the Ovia NE LGA/Uhunmwonde LGA, including 660ha of cultivated oil palm. This new plantation, referred to as Extension 2, is what is being officially commissioned today by His Excellency, the Governor of Edo State.
- * Currently, the company operates two 30 t/hr oil mills and has commenced the building of another two 30 t/hr oil mills which, will be commissioned from 2020 on Extension 2.
- * Okomu provide opportunity for more than 14,000 Nigerian shareholders to own a part of this company. The success of the company has been further exemplified by the strong increase of its net income which has resulted in a 4 fold increase in the company's share price since 2012 and the payout of annual dividends.
- * What is most inspiring is not just the growth and profitability of the company but the fact that the Okomu Oil Palm Company Plc is ranked 10th among listed companies with the largest turnovers quoted on the Nigerian Stock Exchange (NSE).
- * The company provides free health care, housing, power, water, schooling and other benefits to its workers and has a social corporate responsibility (CSR) programme that assists 29 neighbouring communities surrounding the company's three plantations valued at more than N250 million per annum.

With all these facts, the Okomu Oil Palm Company Plc has lived up to its slogan:

OKOMU MAIN ESTATE MAP



OKOMU EXTENSION 2 MAP



PREFACE ON CORPORATE SOCIAL RESPONSIBILITY

We at The Okomu Oil Palm Company plc are conscious of the fact that our company is an open social system with input from the environment and our outputs go back to the environment. We are also not oblivious of the fact that as a corporate citizen of the Federal Republic of Nigeria, there are expectations from our neighbouring communities to assist them within our sphere of Corporate Social Responsibility.

In our interaction with our neighbouring communities over the years, we have strived to positively impact the lives of the inhabitants through job opportunities, human capital development and infrastructural development.

Our Corporate Social Responsibility Programmes covers twenty five communities who share boundaries with our three (3) plantations in the three (3) Local Government Areas of Edo State where we operate.

This compendium of our Corporate Social Responsibilities (CSR) to our neighbouring communities is best perceived as compendium of **Service to humanity**. The projects contained herein are by no means exhaustive rather, it gives an insight of our disposition to our neighbouring communities.

The essence of the compendium is not to flaunt philanthropism but to document the symbiotic relationship between the company and the communities. The pictures in the compendium are presented according to their place of domain i.e the communities.

It is our fervent believe that this relationship will be improved upon in the years to come and afford us the opportunity to contribute to the infrastructural development of Edo State as we strive to create wealth from the soil while at the same time touching lives and transforming communities.

In undertaking these projects in our neighbouring communities, we have lived true to Adrien Hallet's slogan that "with nothing we can do nothing, but with little, we can achieve plenty"

Dr Graham Hefer
Managing Director
2019

CSR TO UDO COMMUNITY

CSR to Udo Community



**BOREHOLE AT UDO MIXED
SECONDARY SCHOOL**



**SANITARY PAVILION AT UDO
MIXED SECONDARY SCHOOL**



**FIRST BLOCK OF 6 CLASSROOMS AT UDO
MIXED SECONDARY SCHOOL**



**SECOND BLOCK OF 3 CLASSROOMS AT
UDO MIXED SECONDARY SCHOOL**

CSR to Udo Community



LIBRARY COMPLEX AT UDO MIXED SECONDARY SCHOOL.



BOREHOLE ALONG IYESE ROAD, UDO



BOREHOLE AT ARAGWA QUARTERS UDO



BOREHOLE AT ARAGWA QUARTERS UDO

CSR to Udo Community



**RENOVATED GENERATOR HOUSE AT
EXOTI PRIMARY SCHOOL UDO**



FIRST SET OF MARKET STALLS AT UDO



SECOND SET OF MARKET STALLS AT UDO



THIRD SETS MARKET STALLS AT UDO

CSR to Udo Community



**SANITARY PAVILION AT UDO
PRIMARY SCHOOL**



**FIRST BLOCK OF 2 CLASSROOMS AT
UDO PRIMARY SCHOOL**



BOREHOLE AT UDO PRIMARY SCHOOL



**SECOND BLOCK OF 4 CLASSROOMS
AT UDO PRIMARY SCHOOL**

CSR to Udo Community



UDO LORRY PARK PREMISES



**NEW SANITARY PAVILION
AT UDO PRIMARY SCHOOL**



BOREHOLE PROJECT AT UDO LORRY PARK



**BORE-HOLE AT EZOTI PRIMARY SCHOOL
CONSTRUCTED BY OKOMU**

CSR to Udo Community



**CHAIRS AND WHITE BOARD AT UDO
PRIMARY SCHOOL DONATED BY OKOMU**



**BOOKS DONATED TO UDO MIXED
SECONDARY SCHOOL BY OKOMU**



**THEN COMMISSIONER OF EDUCATION
PRESENTING BOOKS ON BEHALF OF
OKOMU TO UDO PRIMARY SCHOOL**



**THEN COMMISSIONER OF EDUCATION
PRESENTING BOOKS ON BEHALF OF OKOMU
TO UDO MIXED SECONDARY SCHOOL**

CSR to Udo Community



**COMMISSIONING OF TWO CLASS ROOMS BLOCK BUILT BY OKOMU
AT UDO PRIMARY SCHOOL**

CSR TO OKE COMMUNITY

CSR to Oke Community



BOREHOLE PROJECT AT OKE COMMUNITY



CORPERS LODGE AT OKE COMMUNITY



BOREHOLE AT OKE COMMUNITY



MARKET STALLS AT OKE COMMUNITY

CSR to Oke Community



**INSPECTION OF SECONDARY BUILDING
AT OKE COMMUNITY**



**COMMISSIONING OF BOREHOLE
AT OKE COMMUNITY**



OKE COMMUNITY TOWN HALL

CSR TO UHIERE COMMUNITY

CSR to Uhiere Community



**BOREHOLE PROJECT
AT UHIERE COMMUNITY**



**RENOVATED MATERNITY
AT UHIERE COMMUNITY**



MARKET STALLS AT UHIERE COMMUNITY



**RENOVATED TEACHERS QUARTER
AT UHIERE COMMUNITY**

CSR to Uhiere Community



BOREHOLE AT UHIERE COMMUNITY

CSR TO AGBANIKA COMMUNITY

CSR to Agbanikaka Community



**FIRST BOREHOLE PROJECT AT
AGBANIKAKA COMMUNITY**



**MARKET STALLS AT AGBANIKAKA
COMMUNITY**



**SECOND BOREHOLE PROJECT
AT AGBANIKAKA**



AGBANIKAKA TOWN HALL

CSR TO IRHUE COMMUNITY

CSR to Irehue Community



MARKET STALLS AT IRHUE COMMUNITY



TOWN HALL AT IRHUE COMMUNITY



FIRST BOREHOLE AT IRHUE COMMUNITY



CSR TO UMOKPE COMMUNITY

CSR to Umokpe Community



FIRST BOREHOLE PROJECT AT UMOKPE COMMUNITY



SECOND BOREHOLE PROJECT AT UMOKPE COMMUNITY

CSR TO ODIGHI COMMUNITY

CSR to Odighi Community



**HER EXCELLENCY IARA OSHIOMHOLE
COMMISSIONING ODIGHI CLINIC**



**ODIGHI CLINIC BUILT BY OVIA NORTH
EAST L.G.A , EQUIPPED BY OKOMU**



**SOME OF THE HOSPITAL BEDS
DONATED BY OKOMU**



**GEN SET AT ODIGHI CLINIC DONATED
BY OKOMU**

CSR to Odighi Community



CSR TO OKOMU - IJAW COMMUNITY

CSR to Okomu-Ijaw Community



**TOWN HALL PROJECT AT OKOMU
IJAW COMMUNITY**



**FIRST BOREHOLE PROJECT AT OKOMU
IJAW COMMUNITY**



**SECOND BOREHOLE PROJECT AT
OKOMU IJAW JUNCTION**



SANITARY PAVILION AT OKOMU IJAW

CSR TO OWAN COMMUNITY

CSR to Owan Community



POLICE STATION AT OWAN COMMUNITY



**FIRST BOREHOLE PROJECT
AT OWAN COMMUNITY**



VISIT TO OWAN COMMUNITY

CSR TO ODIGUETUE COMMUNITY

CSR to Odiguetue Community



**TOWN HALL PROJECT
AT ODIGUETUE COMMUNITY**



**MARKET STALLS AT ODIGUETUE
COMMUNITY**



**FIRST BOREHOLE PROJECT
AT ODIGUETUE COMMUNITY**



**CASSAVA PROCESSING MILL
AT ODIGUETUE COMMUNITY**

CSR to Odiguetue Community



**COMMISSIONING OF BORE HOLE
AT ODIGUETUE**



**SECOND BOREHOLE PROJECT
AT ODIGUETUE**



**TOWN HALL COMPLETED BY OKOMU AT ODIGUETUE,
OVIA NORTH EAST L.G**

CSR TO EKPAN COMMUNITY

CSR to Ekpan Community



TOWN HALL PROJECT AT EKPAN COMMUNITY



MARKET STALLS AT EKPAN COMMUNITY

CSR TO OFUNAMA COMMUNITY

CSR to Ofunama Community



FIRST WATER PROJECT AT OFUNAMA



SECOND WATER PROJECT AT OFUNAMA



**THEN CHAIRMAN OVIA SOUTH WEST LGA
(HON. MORRIS OGUNROBO-OVIA)
COMMISSIONS ONE OF THE TWO SANITARY
PAVILION BUILT BY OKOMU AT OFUNAMA**



**SANITARY PAVILION AT
OFUNAMA PRIMARY SCHOOL**

CSR to Ofunama Community



**BLOCK OF CLASSROOMS
AT OFUNAMA COMMUNITY**



**BOREHOLE PROJECT
AT OFUNAMA COMMUNITY**

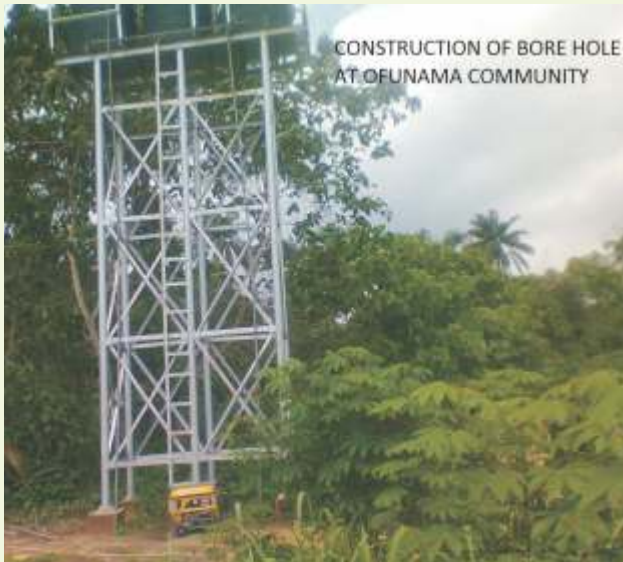


**GUEST HOUSE AT OFUNAMA
COMMUNITY**



**CONSTRUCTION OF SANITARY PAVILION
AT OFUNAMA COMMUNITY**

CSR to Ofunama Community



**CONSTRUCTION OF BOREHOLE
AT OFUNAMA COMMUNITY**



**COMMISSIONING OF OFUNAMA
COMMUNITY HALL BUILT BY OKOMU**



COMMUNITY TOWN HALL AT OFUNAMA



**INTERIOR OF COMMUNITY HALL
AT OFUNAMA BUILT AND FURNISHED
BY OKOMU**

CSR to Ofunama Community



**REPRESENTATIVE OF OFUNAMA
PRIMARY SCHOOL RECEIVING
BOOKS DONATED BY OKOMU**



**THEN COMMISSIONER OF EDUCATION
PRESENTING AGRIC EQUIPMENT TO EGBEMA
SECONDARY SCHOOL ON BEHALF OF OKOMU**



**AGRIC EQUIPMENTS DONATED TO
EGBEMA SECONDARY SCHOOL**



**THEN COMMISSIONER OF EDUCATION PRESENTING
SCIENCE EQUIPMENT TO EGBEMA SECONDARY
SCHOOL, OFUNAMA ONBEHALF OF OKOMU**

CSR to Ofunama Community



WE ARE GRATEFUL FOR TOUCHING OUR LIVES –OFUNAMA COMMUNITY

CSR TO NIKOROGHA COMMUNITY

CSR to Nikorogha Community



**FIRST BOREHOLE PROJECT
AT NIKOROGHA COMMUNITY**



**SANITARY PAVILION AT NIKOROGHA
COMMUNITY**



**FIRST BLOCK OF CLASSROOMS AT
NIKOROGHA COMMUNITY**



**FIRST BLOCK OF TEACHERS' QUARTER
AT NIKOROGHA COMMUNITY**

CSR to Nikorogha Community



**SECOND BLOCK OF CLASSROOMS
AT NIKOROGHA COMMUNITY**



**THIRD BLOCK OF CLASSROOMS
AT NIKOROGHA COMMUNITY**



**SECOND BLOCK OF TEACHERS' QUARTER
AT NIKOROGHA COMMUNITY**



**SANITARY PAVILION
AT NIKOROGHA COMMUNITY**

CSR to Nikorogha Community



**SECOND BOREHOLE AT
NIKOROGHA COMMUNITY**



**TOWN HALL PROJECT
AT NIKOROGHA COMMUNITY**



**THIRD BOREHOLE
AT NIKOROGHA COMMUNITY**



**FOURTH BLOCK OF THREE CLASSROOMS
AT INIKOROGHA BUILT BY OKOMU**

CSR to Nikorogha Community



CONSTRUCTION OF NIKOROGHA ROAD BY OKOMU



SANITARY PAVILION AT NIKOROGHA PRIMARY SCHOOL BUILT BY OKOMU



FOURTH BORE HOLE AT INIKOROGHA SECONDARY SCHOOL



THEN COMMISSIONER OF EDUCATION PRESENTING BOOKS ON BEHALF OF OKOMU TO NIKOROGHA SECONDARY SCHOOL

CSR to Nikorogha Community



**COMMISSIONING OF CLASSROOM
BLOCK AT NIKOROGHA**



**GRAHAM HEFER GOES TO SCHOOL;
DONATION OF CLASSROOM CHAIRS TO
NIKOROGHA SECONDARY SCHOOL**



SANITARY PAVILION AT NIKOROGHA SECONDARY SCHOOL

CSR TO MARIOGHIONBA COMMUNITY

CSR to Marioghionba Community



**FIRST BOREHOLE PROJECT
AT MARIOGHIONBA COMMUNITY**



**MARKET STALLS
AT MARIOGHIONBA COMMUNITY**



**PERIMETER FENCE AT MARIOGHIONBA
COMMUNITY PRIMARY SCHOOL**



**SANITARY PAVILION AT MARIOGHIONBA
COMMUNITY PRIMARY SCHOOL**

CSR to Marioghionba Community



**STAFF QUARTERS AT MARIOGHIONBA
COMMUNITY PRIMARY SCHOOL**



**FIRST BLOCKS OF CLASSROOMS AT
MARIOGHIONBA COMMUNITY
PRIMARY SCHOOL**



**SECOND BLOCK OF 3 CLASSROOMS AT
MARIOGHIONBA COMMUNITY
PRIMARY SCHOOL**



**THIRD BLOCK OF 3 CLASSROOMS AT
MARIOGHIONBA COMMUNITY
PRIMARY SCHOOL**

CSR to Marioghionba Community



**COMMUNITY TOWN HALL AT
MRIOGHIONBA COMMUNITY**



**BORE HOLE AT MARIOGHIONBA
COMMUNITY CONSTRUCTED BY OKOMU**



**MD HANDING OVER KEY OF A NEWLY BUILT
CLASSROOM AT MAIROGHIONBA TO DCIE**



**COMMISSIONING OF A BLOCK OF THREE
CLASS ROOMS AT MAIROGHIONBA
PRIMARY SCHOOL**

CSR TO GBELE-OBA COMMUNITY

CSR to Gbele-Oba Community



**FIRST BLOCK OF 3 CLASSROOMS
AT GBELE-ObA COMMUNITY**



**COMMUNITY TOWN HALL
AT GBELE-ObA COMMUNITY**



**CASSAVA PROCESSING MILL
AT GBELE-ObA COMMUNITY**



**BOREHOLE PROJECT
AT GBELE-ObA COMMUNITY**

CSR to Gbele-Oba Community



BOREHOLE PROJECT AT GBELE-ObA COMMUNITY



SECOND BOREHOLE PROJECT AT GBELE-ObA COMMUNITY

CSR TO YORUBA CAMP

CSR to Yoruba Camp



BOREHOLE PROJECT AT YORUBA CAMP

CSR TO AGBEDE CAMP

CSR to Agbede Camp



BORE HORE AT AGBEDE CAMP

CSR TO UTESI COMMUNITY

CSR to Utesi Community



BOREHOLE PROJECT AT UTESI COMMUNITY



WATER PROJECT AT UTESI CONSTRUCTED BY OKOMU

CSR TO SAFROGBO COMMUNITY

CSR to Safarogbo Community



GRADING OF ROAD AT SAFAROGBO



BORHOLE COMMISSIONING AT SAFAROGBO



FIRST BOREHOLE PROJECT AT SAFAROGBO

CSR TO OPUAMA COMMUNITY

CSR to Opuama Community



BORE HOLE FOR OPUAMA COMMUNITY

CSR TO GBELEBU COMMUNITY

CSR to Gbelegbu Community



**FIRST BOREHOLE PROJECT
AT GBELEGBU COMMUNITY**



**FIRST BLOCK OF CLASSROOMS
AT GBELEGBU COMMUNITY**



**SECOND BLOCK OF CLASSROOMS
AT GBELEGBU COMMUNITY**



**THIRD BLOCKS OF CLASSROOMS
AT GBELEGBU COMMUNITY**

CSR to Gbelegbu Community



**COMMUNITY TOWN HALL AT
GBELEGBU COMMUNITY**



GBELEBU ROAD GRADING



**GBELEBU COMMUNITY WATER PROJECT
CONSTRUCTED BY OKOMU**

CSR TO MADAGBAYO COMMUNITY

CSR to Madagbayo Community



**FIRST BOREHOLE PROJECT
AT MADAGBAYO COMMUNITY**



**MARKET STALLS AT MADAGBAYO
COMMUNITY**



COMMUNITY TOWN HALL AT MADAGBAYO



**FIRST BLOCKS OF CLASSROOMS AT
MADAGBAYO COMMUNITY**

CSR to Madagbayo Community



**SECOND BLOCK OF CLASSROOMS
AT MADAGBAYO COMMUNITY**



**FIRST BOREHOLE PROJECT AT
MADAGBAYO COMMUNITY**



**FIRST SANITARY PAVILION
AT MADAGBAYO COMMUNITY**



**SECOND SANITARY PAVILION
AT MADAGBAYO BUILT BY OKOMU**

CSR to Madagbayo Community



**THIRD BLOCK OF TWO CLASSROOMS
AT MADAGBAYO BUILT BY OKOMU**



GRADING OF ROAD AT MADAGBAYO



**THIRD BOREHOLE PROJECT AT
MADAGBAYO CONSTRUCTED BY OKOMU**



ELECTRIFICATION WORK AT MADAGBAYO

CSR TO GOVT. PRY.SCH OKOMU

CSR to Govt. Pry. School, Okomu



**FORMER COMMISSIONER OF EDUCATION PRESENTING A
PHOTOCOPIER MACHINE ON BEHALF OF OKOMU TO GOVERNMENT
PRIMARY SCHOOL ,OKOMU.**

CSR TO OKOMU NATIONAL PARK

CSR to Okomu National Park



**OFFICIAL COMMISSIONING OF THE RESIDENTIAL
QUARTERS AT THE NATIONAL PARK**



**RESIDENTIAL QUARTERS AT NATIONAL
PARK BUILT BY OKOMU**



BOREHOLE FOR OKOMU NATIONAL PARK

CSR TO NIGERIAN POLICE FORCE

CSR to Nigerian Police Force



BORE HOLE AT IGUOBAZUWA POLICE STATION CONSTRUCTED BY OKOMU



RENOVATION AND HANDING OVER OF DPO QUARTERS AT IGUOBAZUWA POLICE DISTRICT



FENCING OF EKIADOLOR POLICE STATION BY OKOMU OIL PALM COMPANY PLC



HANDING OVER OF OFFICE EQUIPMENT TO CENTRAL POLICE COMMAND, BENIN -CITY

CAPACITY BUILDING

Capacity Building



**BURSARY RECIPIENTS FROM SEVEN
NEIGHBOURING COMMUNITIES (2012)**



**SKILL ACQUISITION TRAINEES (BATCH 1)
FROM NEIGHBOURING COMMUNITIES ON
THEIR RETURN FROM DON BOSCO(2013)**



**BURSARY RECIPIENTS FROM
NEIGHBOURING COMMUNITIES (2013)**



**SKILL ACQUISITION TRAINEES (BATCH 2)
FROM NEIGHBOURING COMMUNITIES
BEFORE THEIR DEPARTURE**

Capacity Building



RECIPIENTS OF 2015 BURSARY AWARD



**SKILL ACQUISITION TRAINING
PROGRAMME 2015**



**BENEFICIARIES OF THE 2016 OKOMU
SKILL ACQUISITION
SCHEME FOR COMMUNITIES**



**BENEFICIARIES OF THE 2016
BURSARY AWARDS**

Capacity Building



**GROUP PHOTOGRAPH WITH SOME
RECIPIENT OF THE SKILLS ACQUISITION
AND TRAINING (2018)**



**GROUP PHOTOGRAPH OF BENEFICIARIES
OF THE BURSARY AWARD (2018)**



**GROUP PHOTOGRAPH OF PARTICIPANTS ON
COMMUNITY TRAINING PROGRAM ORGANISED
FOR NEIGHBOURING COMMUNITIES (2015)**



**REPRESENTATIVES IN THE 2016 COMMUNITY
TRAINING TAGGED "STRATEGIES FOR A WIN-WIN
APPROACH IN COMPANY-COMMUNITY RELATIONS"**

Capacity Building



GROUP PHOTOGRAPH OF PARTICIPANTS FROM EXTENSION 1 COMMUNITIES DURING 2017 COMMUNITY TRAINING ON "COMMUNITY DEVELOPMENT- A NEW PERSPECTIVE, PAST PRESENT AND FUTURE" ORGANISED BY THE OKOMU OIL PALM COMPANY PLC.



GROUP PHOTOGRAPH OF PARTICIPANTS FROM EXTENSION 2 COMMUNITIES (ODIGHI, ODIGHUETUE, UHIERE, OKE, OWAN, AKPANIKAKA DURING 2017 COMMUNITY TRAINING ON "COMMUNITY DEVELOPMENTAL NEW PERSPECTIVE, PAST PRESENT AND FUTURE" ORGANISED BY THE OKOMU OIL PALM COMPANY PLC



CROSS SECTION OF COMMUNITY REPRESENTATIVES DURING THE 2018 COMMUNITY TRAINING ON "RIGHTS, PRIVILEGES, AND SOCIAL DIALOGUE IN COMPANY/COMMUNITY RELATIONS" ORGANISED BY OKOMU OIL PALM COMPANY PLC

DONATION TO ORPHANAGES

Donation to Orphanage



COLE ORPHANAGE



EDO ORPHANAGE



OMOSEFE ORPHANAGE



ORONSAYE ORPHANAGE

COMMUNITY RELATIONS

PREFACE ON COMMUNITY RELATIONS

This compendium is a compilation of the various ways Okomu Oil Palm Plc embarks on its community relations among its neighboring communities. This is premise on the fact that we believes in building a cordial and strong relationship with all our stakeholders.

We believe in the need for a two-way communication process with all our communities, hence the opening of a feedback mechanism in all our communities. This feedback in turns out to be a valuable part of our operations and will become an integral part of our decision-making process in relating with our communities. As a company we have invested our time and finance in our communities, part of which is the bi-annual visit to all of our twenty-nine communities in a bid to build the confidence of the people towards the company and also show our responsiveness to them and the welfare of those with whom we share boundaries with.

Apart from our communities, we also embark on such gestures and regular visitation to other stakeholders including Government agencies at Federal, State and Local Government Level, security agencies, institutions of learning and charity organizations as this forms part of our company's philosophy. Although this compendium does not cover our entire community relations with our various stakeholders embarked by the company in the year under review, it covers an appreciable number of the various community relations we had embarked upon both to our immediate communities and among other stakeholders.

We have over time enjoyed maximum co-operation from these communities and stakeholders by way of protecting and safeguarding our properties, projects, watching out for our interest, appreciation of the company for some of our acts of kindness towards them, we would also say at this point that there is room for improving in this relationship with these stakeholders as we continue to operate and contribute our quota not just these communities but Edo State at large.

Dr Graham Hefer
Managing Director

Community Relations



**A CULTURE OF RESPECT
AT THE PALACE OF IYASE OF UDO**



**A VISIT TO THE ENOGIE OF
UMOKPE PALACE**



**A GROUP PHOTOGRAPH OF OKOMU
MANAGEMENT WITH THE ENOGIE AND
PALACE CHIEFS DURING THE VIST OF**



**VISIT TO THE ENOGIE OF UMUOKPE,
OVIA NORTH EAST L.G**

Community Relations



THE IYASE OF UDO IN HIS PALACE



**LEGAL TEAM OF THE COMPANY AND COMMUNITIES
DURING THE SIGNING OF FREE PRIOR AND
INFORMED CONSENT (FPIC) AGREEMENT**



**GROUP PHOTOGRAPH WITH VARIOUS
COMMUNITY LEADERS THAT SIGN
THE FPIC AGREEMENT**



**REPRESENTATIVES OF UHIERE COMMUNITY
SIGNING THE FPIC AGREEMENT WITH
DR. GRAHAM HEFER**

Community Relations



**REPRESENTATIVES OF ODIGUETUE
COMMUNITY SIGNING THE FPIC AGREEMENT
WITH DR. GRAHAM HEFER**



**REPRESENTATIVES OF ODIGHI
COMMUNITY SIGNING THE FPIC
AGREEMENT WITH DR. GRAHAM HEFER**



**MR. JUDE EKPO REPRESENTING EDO STATE
COMMISSIONER FOR AGRICULTURE AND
NATURAL RESOURCES AT THE SIGNING
OF FPIC AGREEMENT**



**BREAKING THE KOLA NUT
AT OWAN COMMUNITY**

Community Relations



**CAT FISH PRESENTED TO THE MD
AT SAFAROGBO**



**CIVIL RECEPTION FOR THE MD AT
INIKOROGHA COMMUNITY**



**IN A MEETING WITH THE ELDES
AT OKE COMMUNITY**



INCLUSIVE MEETING AT OKE COMMUNITY

Community Relations



**JUBILANT WOMEN AT ODIGH, THE MD
STANDING BY THE SIGN POST AT THE BACK**



**MATHIAS POLO OF INIKOROGHA PRESENTS
A GOAT TO THE MD AS AN APPRECIATION**



**MD PRAYING WITH THE KOLA NUT IN
BENIN LANGUAGE AT ODIGUETUE**



MD SINGS ALONG WITH THE WOMEN

Community Relations



EXTENSION 2 MANAGER, MR PRABHAT PAREEKH(R) CHATTING WITH AN ELDER OF OKE COMMUNITY DURING THE COMMISSIONING OF A BOREHOLE PROJECT IN THE AREA



EXTENSION 2 MANAGER, MR PRABHAT PAREEKH(R) IN A GROUP PHOTOGRAPH WITH ELDERS OF OKE COMMUNITY DURING THE COMMISSIONING OF A TOWN HALL PROJECT IN THE AREA



DR. ISI ALETOR INTRODUCING MR PRABHAT PAREEKH TO ELDERS AND MEMBERS OF OKE COMMUNITY



DR GRAHAM HEFER EXCHANGING PLEASANTRIES WITH THE IYASE OF UDO

Community Relations



DR. GRAHAM HEFER ADDRESSING THE IYASE OF UDO, IN HIS REGULAR VISITS TO COMMUNITIES



OVERVIEW OF GUESTS PRESENT AT THE VISIT OF DR. HEFER TO THE IYASE OF UDO



GROUP PHOTOGRAPH BY DR. GRAHAM HEFER AND MEMBERS OF HIS ENTOURAGE WITH THE IYASE OF UDO



THE IYASE OF UDO GOING THROUGH THE OKOMU 2019 CALENDAR

Community Relations



DR HEFER ON A COURTESY VISIT TO INIKOROGHA COMMUNITY



DR HEFER PRESENTING CARTONS OF OIL ON HIS VISIT TO INIKOROGHA



COURTESY VISIT TO OFUNAMA COMMUNITY



DR HEFER DANCES WITH THE WOMEN AT MADAGBAYO COMMUNITY

Community Relations



WOMEN TROOPS OUT TO RECEIVE DR. HEFER ON ARRIVAL AT MADAGBAYO



THE RECEPTION AT MADAGBAYO



VISIT TO OKOMU IJAW COMMUNITY



DR. HEFER EXCHANGING PLEASANTRY WITH THE HEAD OF OKOMU IJAW COMMUNITY

Community Relations



DR HEFER ADDRESSING THE KING OF OKOMU IJAW COMMUNITY



ARRIVING OKOMU IJAW COMMUNITY



VISIT TO GBELE-UBA COMMUNITY



AWITH WOMEN AT GBELE-UBA COMMUNITY

Community Relations



AT GBELE –UBA COMMUNITY



**THE COMMUNITY GATHER
TO RECEIVE HEFER**



WELCOME TO GBELEBU COMMUNITY



RECEPTION AT GBELEBU COMMUNITY

Community Relations



**WINNER OF 2015 AWARD FOR EXCELLENCE IN
CORPORATE SOCIAL RESPONSIBILITY**

