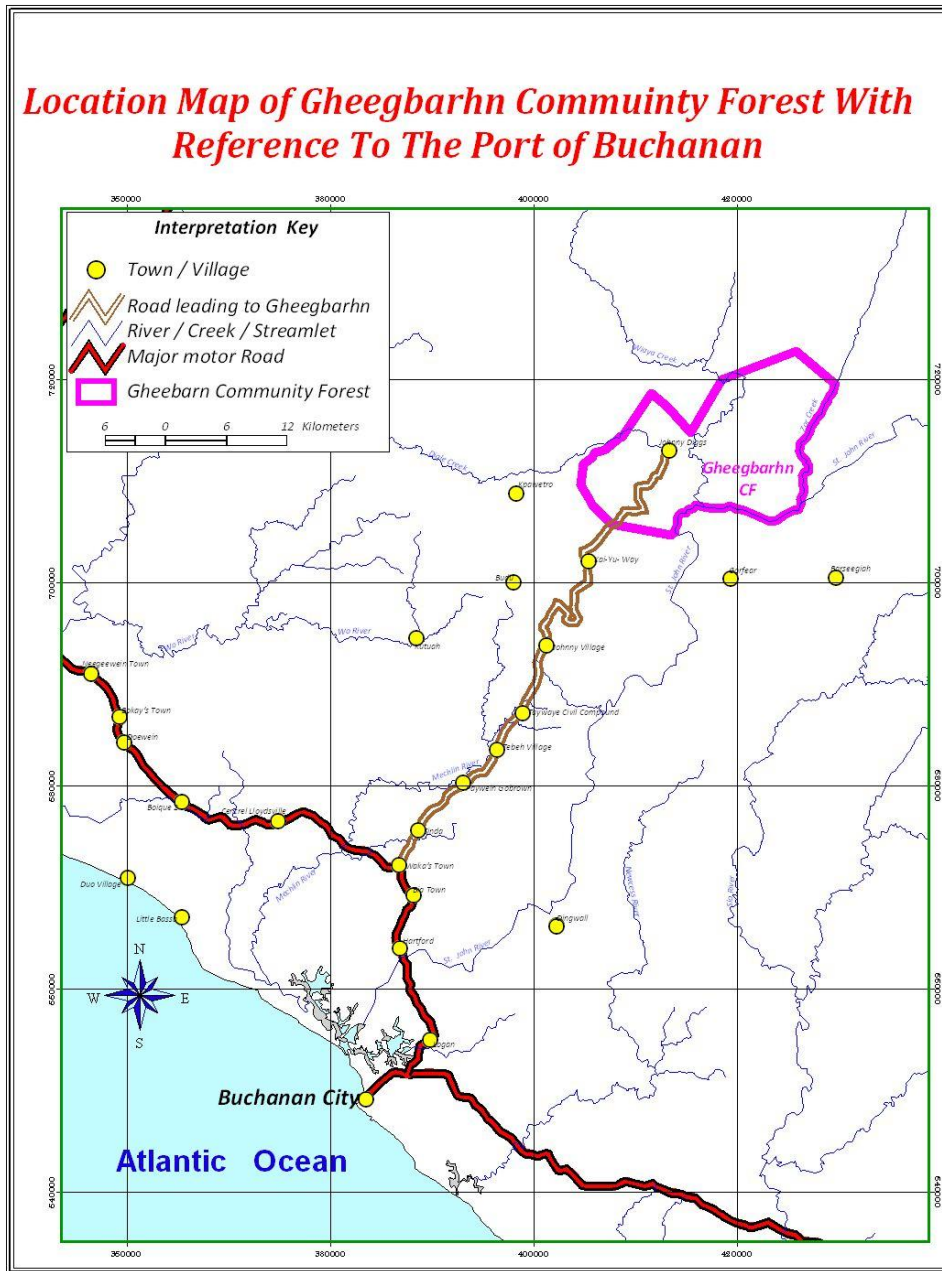


WEST AFRICAN FOREST DEVELOPMENT INC., (WAFDI) **2022-2023 Annual Operations Plan** **Gheegbarhn #1 Community Forest**



*Date Submitted To The Forestry Development Authority:
Tuesday, November 15, 2022*

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ACRONYMS

AC	Annual Coupe
Acs	Acres
AOP	Annual Operation Plan
CF	Community Forest
DBH	Diameter at Breast Height
DCL	Diameter Cut Limit
FC	Forest Compartment
FDA	Forestry Development Authority
GCF	Gheegbarhn # 1 Community Forest
GSV	Gross Standing Volume
Ha	Hectare
MDCL	Minimum Diameter Cut Limit
NTFP	Non-Timber Forest Product
RA	Resource Area
SFMP	Strategic Forest Management Plan
5-YFMP	Five Year Forest Management Plan

ACKNOWLEDGEMENT

This Fifth Annual Operational Plan (AOP) of Gheegbarhn #1 Community Forest has been compiled and prepared by Mrs. Sarah Gay Buella Ojo, Chain of Custody (COC) Specialist, West African Forest Development Inc.

Information regarding the environment and ecosystems was provided by FERI (Forestry & Environmental Research Institute), an independent Environmental Evaluator, recognized by the Environmental Protection Agency of Liberia (EPAL).

The maps and analysis were prepared using the facilities of the Geographic Information Systems (GIS) and Remote sensing Laboratory of Liberia Institute for Statistics & Geo-Information Services (LISGIS); specifically, making use of the technical expertise of Messrs. Thomas Davis, Director, GIS and Remote Sensing Department, Liberia Institute for Statistics and Geo-Information Services, Augustine B.M. Johnson, Acting General Manager, Mandra Forestry Liberia Limited, Arnelio and Hiniely Labalan, Surveyors, of West African Forest Development Inc.

During the process of developing and preparing this Annual Operational Plan, financial support was provided by West African Forest Development Inc.

The undersigned wishes to extend her thanks and appreciation to Mr. Fang Jiang Sheng, Chief Executive Officer of West African Forest Development Inc., for his support.

Many thanks to all others who contributed one way or the other, but were not mentioned in the acknowledgement of this report.

SIGNED _____

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1. EXECUTIVE SUMMARY

Presentation of the annual coupe area

In fulfilment of the Guideline for Forest Management Planning, the West African Forest Development Inc has prepared and herewith presents its fifth Annual Operational Plan from the First Five-year Forest Compartment, (FC # 1). WAFDI has entered into an agreement with the people of Gheegbarhn #1 community to harvest merchantable trees species from 26, 363 hectares of forest land over a period of fifteen years. In order to work in the require blocks annually based on the size and duration of the contract, West African Forest Development Inc., has delineated Forest Compartment one (FC # 1) into Five Annual Coupes and has partially worked in four of the five annual coupes and is prepared to work in the fifth AC during the 2022-2023 logging season. Annual Coupe Five has seventeen (17) blocks, those seventeen blocks are: E-9, E-10, E-11, E-12, E-13, F-10, F-11, F-12, F-13, F-14, F-15, F-16, G-14, G-15, G-16, H-17 and H-18, but due to the irregular shape of Annual Coupe #5 boundary polygons, there are fifteen (15) squared blocks, and two (2) irregular blocks. Ten (10) of the seventeen (17) blocks: **F-10, F-11, F-12, F-13, F-14, G-14, G-15, G-16, H-17, H-18** have been fully surveyed, enumerated and submitted to LVD for verification and approval.

Also, during the 2021-2022 logging season, there were blocks surveyed, enumerated, verified and approved by the Forestry Development Authority but were untouched due to many factors, but to name a few: the time in which the Annual Harvesting Certificate was issued by the FDA couldn't permit WAFDI to galvanize the financial and technical resources to start the felling and extraction in all of the approved Annual Coupe blocks, coupled with the collapse of the timber markets around the World due to the war between Ukraine and Russia. The closure of West African Forest Development Inc., for the period of eleven (11) months which prevented the company from carrying out normal operations in the Forest Concession had huge negative consequences on the survivability of the company, now that we have some semblances of stability within the industry and the little improvement of the market, WAFDI wish to bring forward those blocks that contain species in keeping with section 6 of the Guideline for Forest Management Planning on Opening Schedule, paragraph 4. These ten (10) untouched/brought forward blocks emanates from 2021-2022, those blocks are: I-17, I-18, I-19, J-18, J-19, L-13, L-14, N-3, N-4, and O-3.

Additionally, during the 2020-2021 logging operation there were approved Annual Coupe blocks that were not fully completed during the logging season that we wish to re-submit those blocks as Re-entry Annual Coupe blocks for this 2022-2023 logging season pending the approval of the Authority and they include: I-14, I-15, I-16, J-15, H-13, J-17, M-20, M-21, N-21, N-22, K-19, L-20, L-21, L-22, O-19, N-19 and N-20.

This Annual Operational Plan (AOP) details the methods and conditions of operation for Gheegbarhn #1 Community Forest with the Contract Holder being West African Forest Development Inc (WAFDI). The harvesting plan covers the normal methods of work, environmental, logistical and commercial considerations. This Annual Operational Plan (AOP) is a working document that has been prepared, understood, agreed to and to be used by people involved in forest operations in Gheegbarhn #1 Community Forest.

The Plan further serves as important mechanisms for communicating responsibility for the implementing of interventions specified in the Company's Five-Year Forest Management Plan. Additionally, it includes a set of values, goals, objectives and actions that address economic, environmental and social aspects of sustainable forest management within the Annual Coupe. West African Forest Development Inc (WAFDI) will strive to harvest the timber resources within the annual coupe sustainably, so that its derived benefits can be delivered into perpetuity. To achieve this, we will operate within the scope of all local, national & international regulatory frameworks to ensure sustainable management of the Coupe. It is important to note that all of West African Forest Development Inc (WAFDI) timber harvesting operations will follow the recommendations for water quality protection and erosion control contained in the Revised Code of Forest Harvesting Practices of Liberia. This logging project will include construction of roads and bridges in the North of the concession almost near the borders of Bong County, access and haul roads, skid trails, landings etc.; construction of camp housing for project workers; selective felling and cross cutting of commercial timbers; hauling and stockpiling, loading and transportation of logs in trailers etc. The project shall comprise of a value addition component which shall entail the provision supplying the veneer factory with class 'C' logs for peeling for processing in this fifth year of operation.

Forests Management Decisions

The management of West African Forest Development Inc has a vision to sustainably engage in commercial logging in keeping with the National Forestry Reformed Law of 2006 and its attending regulations. In the discharge of its functions, WAFDI's will take into consideration the environment and the creation of job opportunities for Liberians, qualified expatriates as well as African immigrants. Indeed, the sustainable management of forest to satisfy the social, community, economic, and conservation concerns for mankind is WAFDI's priority objectives. We believe in the professional judgment, within a set of broad guidelines and principles to manage the forest resource. Therefore, WAFDI's management decision is to harvest round logs from only blocks that have been approved by the Authority and adhere to all environmental perimeters.

Forest Management Planning

Standard operating procedures being adapted for Sustainable Management of forests through efficient forestry operations and practices for inventory, felling, transportation and export as per the requirement of the Government of Liberia and internationally accepted regulatory framework. Assessment procedures and standards to be used in the evaluation of forest operations and forest management within all Annual Coupes as per the approved SOPs and Code of Forest Harvesting Practices have been followed and worked in forests areas to maintain chain of custody and legality of forest products.

Blocks have been selected for enumeration based on preliminary survey so as to make sure that adequate quantity of logs are available for harvesting. Once a block is found suitable for enumeration, it was cleaned and adequately prepared for enumeration by cutting survey lines and boundaries. After successful enumeration of all the trees falling equal or more than 60 cm DBH including all marketable and non-marketable species, the block will be submitted to LVD for verification and inspection and subsequent approval by FDA for harvesting. Once the harvesting permission is received all the trees with equal or more than 60 cm DBH (OBSERVING DIAMETER CUT LIMIT) had been selected for felling and onward process for extraction, crosscutting, transportation to log-yard will be maintained accordingly. Due care has been taken while enumeration and harvesting of trees for slopes more than 40% and falling under buffer zones. No water bodies will be disturbed due to harvesting of species.

2. DOCUMENT RECORD SHEET

Table 1: Document Record Sheet

Name and contact address of contract holder	West African Forest Development Inc. 14 th Street Sinkor, Old City Builder's Monrovia, Liberia
Contract reference number	CFMA #000
SFMP reference number	First version # 1
Contract effective date	December 2018
Strategic Forest Management Plan date of approval	June 2019
Five-Year Forest Management Plan reference number and date of approval	5-YFMP # 01
Annual Operational Plan reference number	AOP #05 (FIVE)
Period covered by Annual Operation Plan	2022 – 2023 Logging Season
Date of AOP submission to FDA for approval	November 15, 2022 @ 10:00 am
Signatory COC/WAFDI: Mrs. Sarah Gay Buella Ojo	
Signatory Authority: Managing Director, Forestry Development Authority, Republic of Liberia	
Date of AOP approval by FDA	

3.0 REFERENCES

3.1 Location of Annual Coupe Five on the Community Forest Area

- **Order of Passage within the planning Schedule**

The order of passage within the planning schedule of this AOP considers the appraisal of all relevant information regarding Gheegbarhn #1 Community Forest; followed by the planning of forest management activities that considered the economic, environmental and social values of the forest. These values have thus been refined as follows:

- Economic values - subdivided into Productivity and Quality
- Environmental values - no further subdivision; and
- Social values - subdivided into health & Safety.

The order of implementation of the Plan takes into accounts the various activities and prevailing conditions that include servicing and maintenance of materials and equipment, felling/ harvesting, log marking and preparation, as well as log loading, transport and storage. It concludes with harvest control, monitoring, inspection and assessment. This is a systematic check to determine or verify that harvesting operations followed the AOP and achieve its technical, financial and environmental objectives while complying with established standards of sustainable forest management. Monitoring and assessment are thus key elements of responsible forest management for **WAFDI** to conduct.

- **Location with the Community Forest Management Area**

The Guidelines for Forest Management Planning in Liberia requires that community forest resources areas must be delineated into three (3) management units known as compartments for ease of management. Besides, each of the compartments must also be delineated into five (5) Annual Coupes as mandated by the Guidelines. As such, compartment one has since been delineated into five Annual Coupes and Annual Coupe five has been surveyed and enumerated to be harvested during the 2022 / 2023 logging season. The annual coupe lies directly in Forest compartment one as indicated in Figure Two below:

- **Surface Area of Annual Coupe Five**

Annual Coupe Five (5) of Forest Compartment #1 one has a surface area of about 1,622.5 hectares, which is 20 % of the land area of Forest Compartment One. During the inventory/enumeration of the entire Annual Coupe/landmass of Gheegbarhn # 1 Community Forest by West African Forest Development Inc, 442 hectares has been set aside to account for (non-productive areas)

farmlands, slopes, water courses & swamps while 1,180.5 accounts for timber production. See Table 3 below:

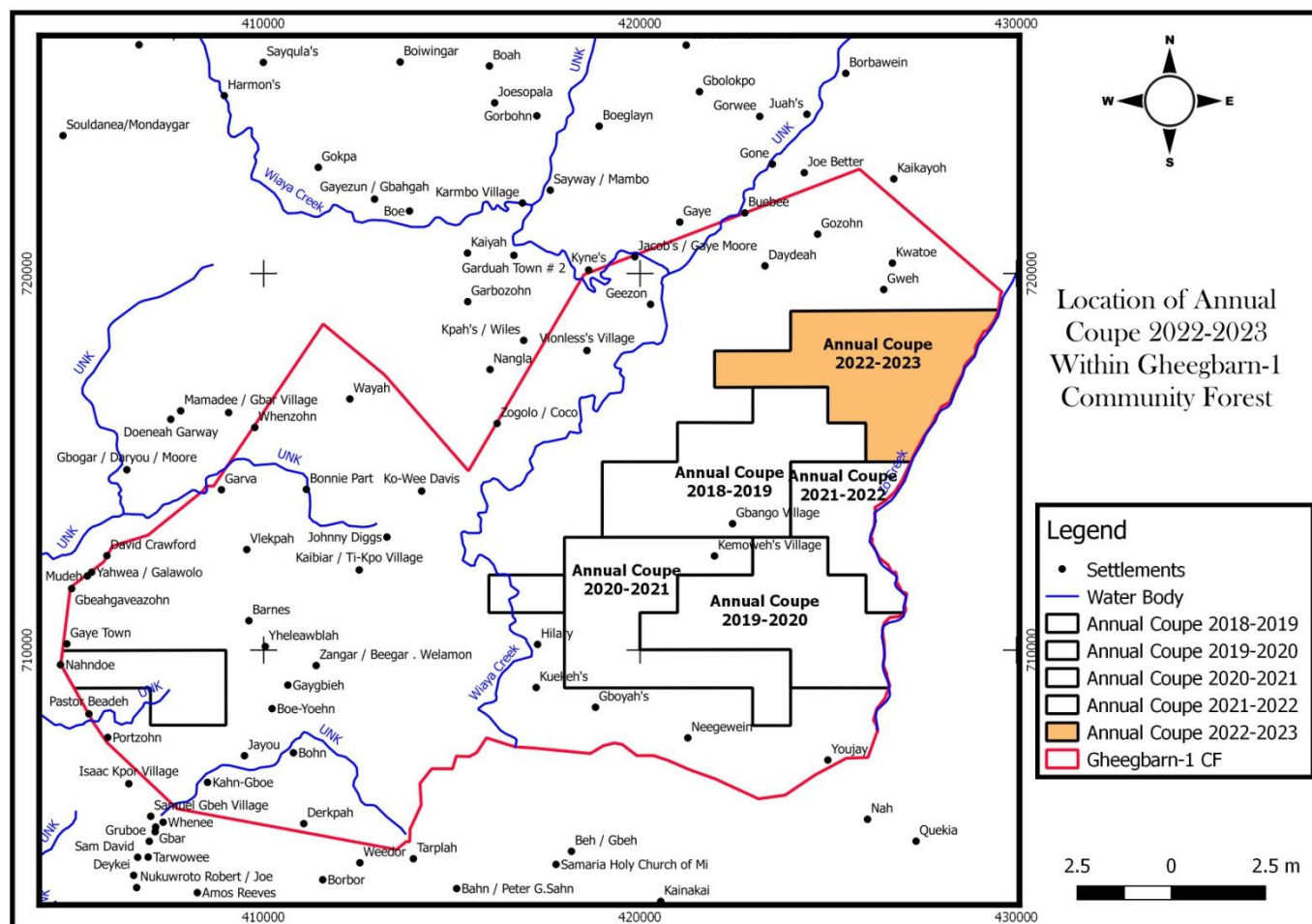


Figure 1: Location Map of Gheegbarhn #1

3.2 Description of the Annual Coupe Boundaries

- Boundaries and Surface Area

The 2022-2023 Annual Coupe is located within the First Five Year Forest Compartment (FC-1), north of FC-1.

The boundary line commences at Waypoint # 27, a point marked on the surface of the Earth UTM Zone 29 N (0424000 – 0719000) thence a line runs Due East for 5,502 meters to the point on the Zor Creek which forms the boundary between Bong and Grand Bassa Counties. Thence a line runs along the Zor Creek in the southern direction for 4,790 meters to a point; thence a line runs Due West for 1,195 meters to a point; thence a line runs Due North 1,000 meters to a point; thence a line runs Due West for 1,000 meters to a point; thence a line runs Due North for 1,000 meters to a point; thence a line runs Due West for 4,000

meters to a point; thence a line runs Due North for 1,000 meters to a point; thence a line runs Due East for 2,000 meters to a point; thence a line runs Due North for 1,000 meters to the point of COMMENCEMENT, embracing **1,622.507 hectares** of land.

- **Criteria for Sectioning into Annual Coupes**

The delineation of all forest compartments into Annual Coupes is sanctioned by the Guidelines for Forest Management Planning in Liberia. It mandates that each Annual Coupe must be equal to 20% of the total harvestable area of the forest compartment; hence, compartment one of Gheegbarn #1 Community Forest has been delineated into Five Annual Coupes.

Table 2: Description of the Annual Coupe Boundaries

Gheegbarn-1 Community Forest Annual Coupe- 5 Boundary Coordinates

WAYPOINTS	LATITUDES	LONGITUDES
27	424000	719000
28	425000	719000
29	426000	719000
30	427000	719000
31	428000	719000
32	429000	719000
39	422000	718000
40	423000	718000
41	424000	718000
42	425000	718000
43	426000	718000
44	427000	718000
45	428000	718000
55	422000	717000
56	423000	717000
57	424000	717000
58	425000	717000
59	426000	717000
60	427000	717000
61	428000	717000
75	425000	716000
76	426000	716000
77	427000	716000
95	426000	715000
96	427000	715000

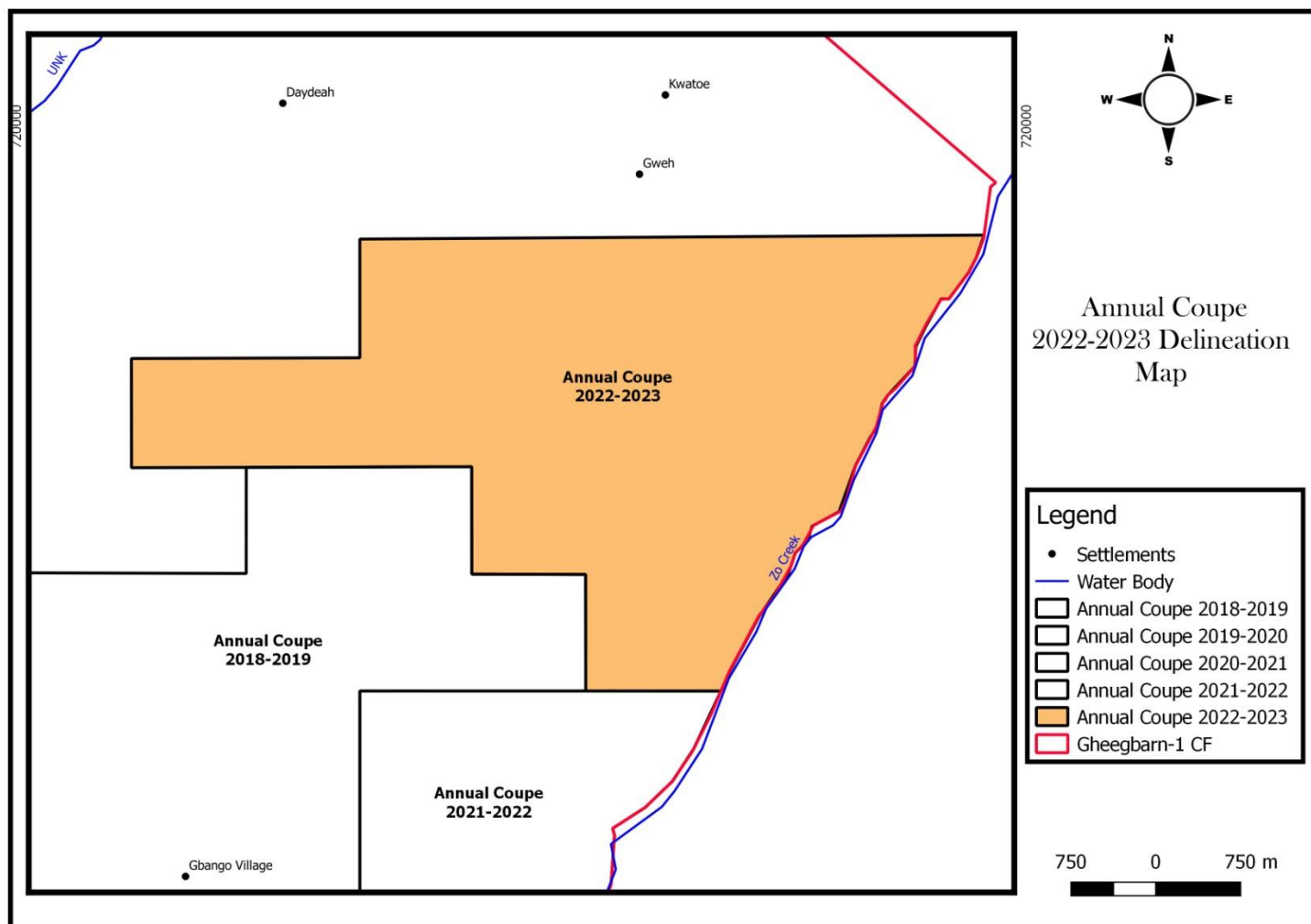


Figure 2: Annual Coupe Delineation Map

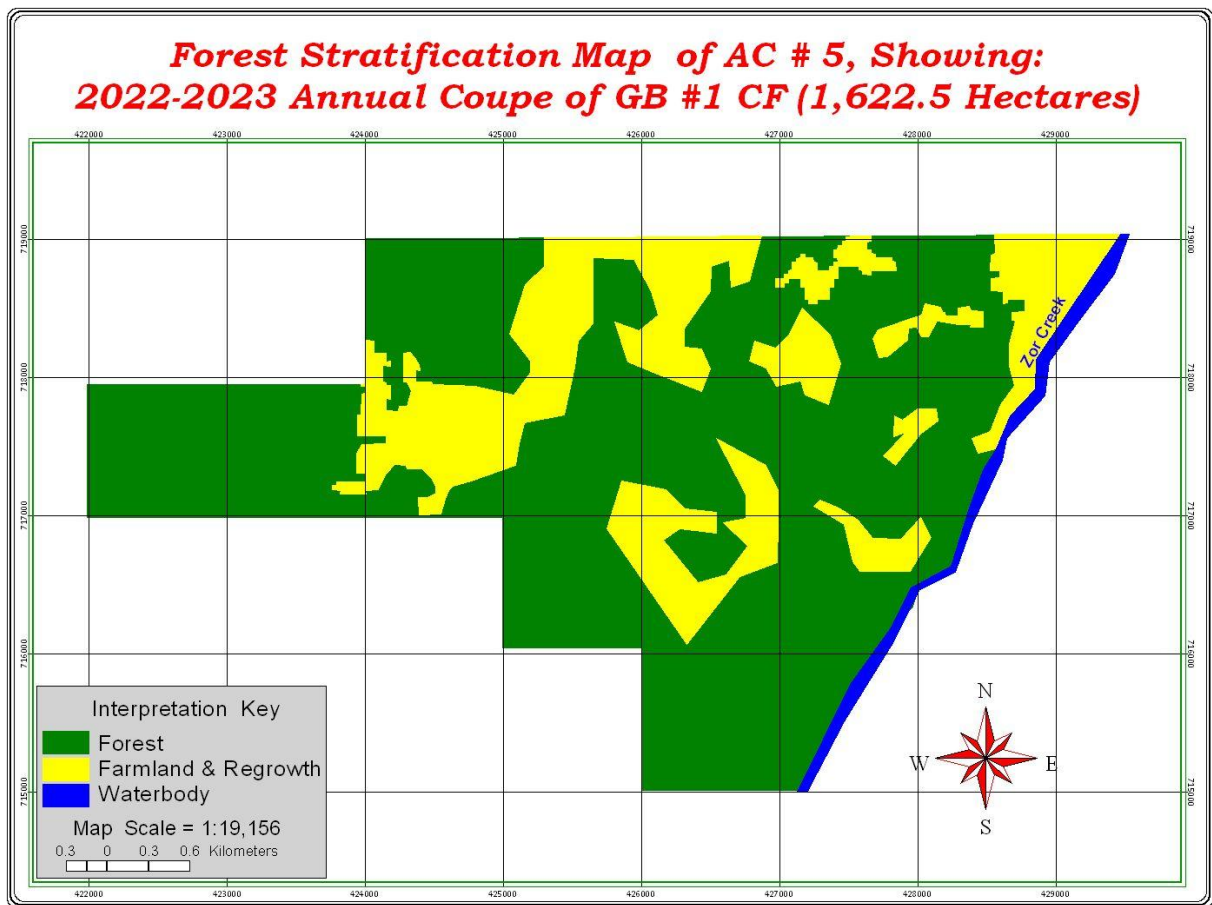
▪ **Specificities (Biophysical & Socioeconomics)**

I. Biophysical Background (Soil & Topography)

Soil is an important component of forest ecosystems as it helps to regulate important ecosystem processes such as nutrient uptake, decomposition, and water availability. Forest soils, which have generally been influenced by forest vegetation, are generally characterized by deeply rooted trees.

However, many of the important functions of soil are altered when environmental damages occur, and can dramatically affect the overall productivity of a forest. Soil disturbance caused by logging can impact both abiotic and biotic components of the soil, which in turn may impact nutrient cycling and other ecosystem function. WAFDI has put in place mechanism that will ensure the conduct of all of its logging operations in sustainable and professional manners that conform to the requirements of the Revised Code of Forest Harvesting Practices of Liberia.

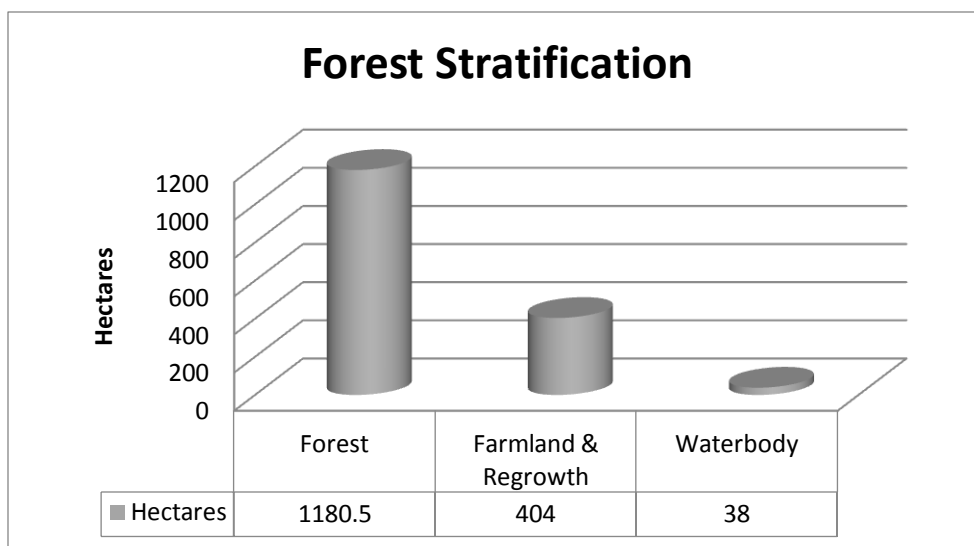
II. Forest Stratification



During the inventory/enumeration of the entire Annual Coupe/landmass of Annual Coupe Five (5) of Gheegbarhn # 1 Community Forest, 442 hectares has been set aside to account for (non-productive areas) farmlands, slopes, water courses & swamps while 1,180.5 accounts for sustainable timber production

Table 3: Summary of Surface Area/ Land Use Types on Annual Coupe 5

Land Cover Type	Surface area (ha)	% AC 5
Total harvestable area for AC # 5	1,180.5	73
Total non-harvestable area	442	27
TOTAL	1,622.5	100%



✓ **Fauna**

The Independent Evaluator commissioned by the Contract Holder along with our crew of surveyors and enumerators, revealed a number of wildlife species, some of which include Duikers, primates, bush cow, hug, pangolins, just to mention a few. All of the villages reported that hunting or setting traps was one of their economic activities in the area. Thus, they must be taught a form of sustainable wildlife management to some extent. Moreover, they must also be provided with alternatives sources of protein. A brief discussion of each kind of wildlife found in the Community Forest Area will be presented in all AOP's submitted to the Authority. Details on these are also available in the ESIA Report submitted and approved by the Environmental Protection Agency of Liberia.

✓ **Socio-economic background:**

Sustainable Forest Management is associated with socio-economic issues; which are some of the important considerations that every forest management regime must incorporate in its planning processes.

Gheegbarn #1 Community Forest provides valuable goods and environmental services that are of importance to the inhabitants of the communities within and around the borders of the Forest; therefore, WAFDI will continue to be involved with community issues and have uphold commitment to the provisions agreed on during the signing of the third-party agreement.

✓ **Demography:**

The socio-economic survey reveals the number of towns as well as the population in each town. The actual location of each town is documented by using GPS; thus, the UTM Coordinates were taken and recorded. Therefore, the actual location of each affected community is known.

Table 4: Affected Communities in and around the Contract Area

TOWN/VILLAGE	MALE	FEMALE	LATITUDES	LONGITUDES
Kaibiar / Ti-Kpo Village	18	20	412541.000000000000	712130.000000000000
Johnny Diggs	13	20	413278.000000000000	713004.000000000000
Ko-Wee Davis	25	21	414199.000000000000	714225.000000000000
Zogolo / Coco	66	86	416204.000000000000	716021.000000000000
Nangla	34	38	416017.000000000000	717454.000000000000
Kpah's / Wiles	46	59	416911.000000000000	718227.000000000000
Vionless's Village	27	22	418591.000000000000	717958.000000000000
Geezon	25	30	420280.000000000000	719185.000000000000
Jacob's / Gaye Moore	59	51	419861.633998000000	720448.281802000000
Gaye	5	6	421057.368832000000	721369.171230999000
Buebee	11	7	422785.358080999000	721613.281802000000
Bonnie Part	52	55	411136.000000000000	714270.000000000000
Youjay	4	4	424992.000000000000	707082.000000000000
Neegewein	44	31	421272.000000000000	707670.000000000000
Gboyah's	26	27	418818.000000000000	708484.000000000000
Kuekeh's	27	21	417242.000000000000	709008.000000000000
Hilary	22	28	417279.000000000000	710153.000000000000
Gbango Village	5	3	422460.000000000000	713359.000000000000
Kemoweh's Village	17	17	421980.000000000000	712502.000000000000
Wayah	26	35	412292.000000000000	716671.000000000000
Garbozohn	20	36	415424.000000000000	719256.000000000000
Kaiyah	23	32	415417.000000000000	720546.000000000000
Garduah Town # 2	16	15	416650.000000000000	720486.000000000000
Kyne's	34	35	418637.000000000000	720095.000000000000
Gone	27	37	423517.606610000000	722908.375736000000
Joe Better	11	14	424364.247510000000	722680.701561999000
Kaikayoh	58	72	426743.468651000000	722516.077296999000
Gozohn	41	34	424720.435378000000	721048.265164999000
Daydeah	8	9	423320.683907000000	720206.204504000000
Gweh	27	28	426477.000000000000	719578.000000000000
Kwatoe	12	23	426706.032255000000	720279.640901000000
Bahn / Peter G.Sahn	60	57	415130.000000000000	703670.000000000000
Tarplah	12	12	413979.000000000000	704461.000000000000
Weedor	23	22	412558.000000000000	704353.000000000000
Borbor	17	18	411571.000000000000	703904.000000000000
Derkpah	18	15	411067.000000000000	705393.000000000000
Bohn	6	9	410793.000000000000	707275.000000000000
Boe-Yoehn	25	28	410225.000000000000	708447.000000000000
Jayou	24	12	409492.000000000000	707197.000000000000
Kahn-Gboe	35	23	408510.000000000000	706490.000000000000

Whenee	13	12	407330.00000000000	705430.00000000000
Gbar	16	16	407132.00000000000	705303.00000000000
Koyah	16	11	407119.00000000000	705178.00000000000
Gruboe	15	5	406963.00000000000	704924.00000000000
Tarwowie	16	14	406933.00000000000	704505.00000000000
Sam David	8	6	406654.00000000000	704499.00000000000
Deykei	4	4	406548.00000000000	704020.00000000000
Nukuwroto Robert / Joe	6	7	406627.00000000000	703695.00000000000
Amos Reeves	7	15	408239.00000000000	703560.00000000000
Samuel Gbeh Village	5	6	407001.00000000000	705588.00000000000
Isaac Kpor Village	0	1	406419.00000000000	706453.00000000000
Portzohn	7	2	405859.00000000000	707682.00000000000
Pastor Beadeh	20	20	405359.00000000000	708307.00000000000
Nahndoe	23	32	404603.00000000000	709613.00000000000
Gbeahgaveazohn	24	32	404899.00000000000	711635.00000000000
Mudeh	18	16	405317.00000000000	711971.00000000000
David Crawford	15	13	405837.00000000000	712510.00000000000
Yahwea / Galawolo	11	12	405431.00000000000	712070.00000000000
Gbogar / Daryou / Moore	75	86	406366.00000000000	714791.00000000000
Doeneah Garway	7	8	407534.00000000000	716132.00000000000
Mamadee / Gbar Village	21	23	407797.00000000000	716356.00000000000
Kpoe Village	6	8	409071.00000000000	716310.00000000000
Whenzohn	20	20	409766.00000000000	715916.00000000000
Vlekpah	39	45	409553.00000000000	712672.00000000000
Barnes	41	44	409610.00000000000	710783.00000000000
Yheleawblah	12	9	410044.00000000000	710098.00000000000
Gaygbieh	11	17	410645.00000000000	709073.00000000000
Zangar / Beegar . Welamon	9	14	411396.00000000000	709592.00000000000
Garva	42	43	408879.00000000000	714261.00000000000
Nah	36	39	426047.00000000000	705509.00000000000
Gaye Town	62	59	404771.19838700000	710167.69614100000
	1654	1751		

I. Human Locations (Villages & Settlements)

As mentioned in the table above there is 62 towns/villages in and around the contract area. The town and villages are included in the table above.

II. Infrastructure

The primary transportation focus on Gheegbarn #1 Community Forest is to provide access for forest management activities. This involves constructing new roads where needed and maintaining or upgrading existing road systems. Other resource

management needs and uses are also considered in this direction. Road maintenance is an integral part of planning of logging activities. For road maintenance, the below roads have been considered for repair and other associated works to be done in line with maintaining a proper transportation of logs from the Forest to the log-yard and onward to the port of exit. Roads to be maintained during this logging season are roads between Waka's Town, Sinda Village, Taywaye Civil Compound, Jonny's Village, Kai-Yu-Way Village and Jonny's Diggs Village. Also, bridges are to be maintained for effective transportation and work during the upcoming logging season. West African Forest Development Inc., already has equipment such as dumping truck, skitter, excavator, tipper truck, motor grader etc. for maintaining bridges.

III. Local Community Activities

The people within the boundaries of Gheegbarn #1 Community Forest are mainly subsistence farmers; and shifting cultivation is their key method of farming. Five (5) priority crops produced by these communities include rice, cassava, okra, pepper and plantain, with few people involve with the production of tree crops, mainly oil palm and rubber. Several species of Non-Timber Forest Products (NTFPs) and other goods and environmental services are also provided by the Forest, but the five (5) priority ones produced by these communities include rattan, honey, bush meat, palm wine and monkey rope. These are harvested and either used locally for construction and handy crafting, food and medicine, or commercially on the local markets.

Management units within the annual coupe

The management units on Annual Coupe 5 have both harvestable and non-harvestable /exclusion areas. However, from the forest stratification conducted there are other areas considered. See table below:

Table 5: Percentage of Management Unit of the forest

Management Unit	Percentage
Primary/closed dense forest	72.75%
Non-forest/farmland and re-growth	24.89%
Water body and riparian zone	2.34%

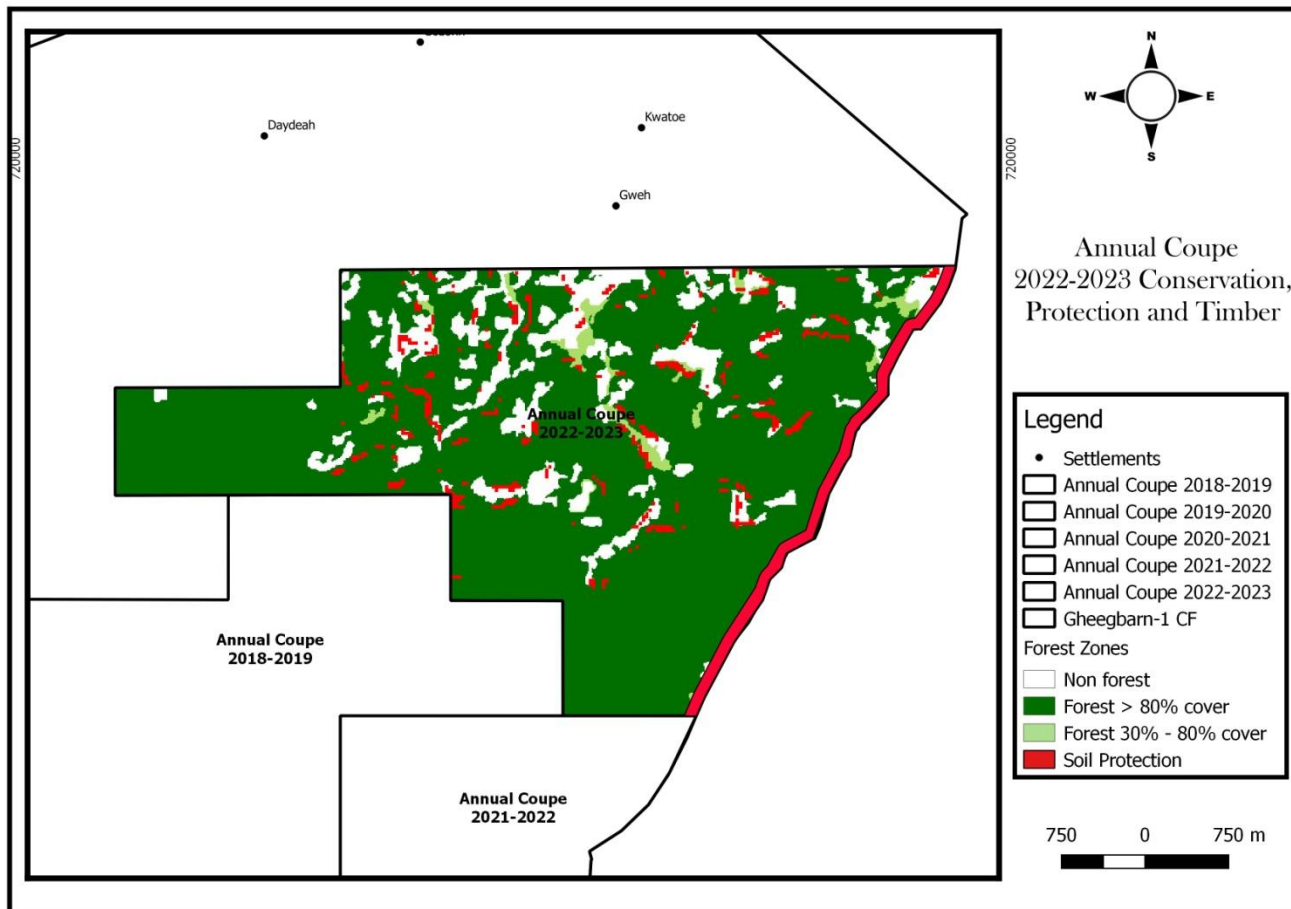


Figure 3: Protection, Conservation and Timber Production Zone

■ Past Logging Activities

West African Forest Development Inc., (WAFDI) partially operated in AC #4 in Forest Compartment #1, in a total of 4 blocks, those four (4) blocks were I-17, J-18, L-13 and L-14. WAFDI harvested the total volume of 1,400m³ during the 2021-2022 logging season. Also, appropriate measures were taken to control illegal harvesting inside the Annual Coupe area and zero tolerant for illegal hunting.

3.3 Annual Audit Report

During the 2021- 2022 Logging Season, **West African Forest Development Inc.** committed to the sustainable management of Annual Coupe Four (4) in Forest Compartment one of Gheegbarhn #1 Community Forest; at which time, all aspects of sustainable forest management; including land-use & harvest planning, management parameters (DBH cutting limit), volume and the number of harvested tree species, the harvesting rules (minimum required diameter cut limit, location of trees, harvesting limit per block, etc.) and wildlife management were fully respected. From all indications, there were no unexpected impacts on

the environment. There was also no evidence of illegal harvesting inside the annual coupe.

4.0 PRE-HARVEST ENUMERATION RESULTS

4.1 Methodology

With reference to Chapter 2.2 of the Revised Code of Forest Harvesting Practices of Liberia, pre-harvest enumeration shall be completed in advance of cutting any trees at the start of each harvesting period, and such action must receive approval from the FDA. The Code also provides the methodology to be used to conduct inventory exercises in the annual coupe. The Code mandates that company should conduct inventory exercises in Annual Coupe zone and it shall be in conformity with the below standards:

- ❖ Inventory of all blocks for 100% stocking of trees above 60 cm dbh using regular grid (north-south/ east-west) in each kilometre square blocks to develop tree location map; and
- ❖ Inventory shall include the markings and tagging with barcodes and recording of all trees from 60cm DBH and above;

4.2 Criteria for the Selection of Harvestable Tree Species

Apart from the 100% inventory of the annual coupe blocks, the following criteria were used for the selection of harvestable tree species:

- ❖ Minimum required diameter cut limit (MDCL) is of 60cm and above;
- ❖ Location of trees is considered, especially those located in protected areas or in buffer/exclusion zones or on deep slope; and
- ❖ Harvesting limit per block will be 30m³/ha on each block.

4.3 Results of Pre-harvest Enumeration (number of trees/ species/ diameter class)

Result of the Annual Coupe Inventory

The West African Forest Development Inc. has conducted inventory of the initial ten (10) blocks in AC # 5, and have submitted an excerpt of the results for some of the blocks enumerated for the 2022-2023 logging season; a full report of the total blocks has been declared in LiberTrace. Below of the excerpt of the few blocks:

Table 5: Excerpt of Pre-harvest enumeration Results: Number of Trees

WAFDI

Gheegbarn 2022-2023 Annual

Coupe

5 Block Summary Showing the Total Number of Enumerated
Trees per Specie

SN	SP. CODE	H18	F11	F13	G14	G15	Total Pieces
		263	842	388	631	500	
24	GIL	79	180	119	312	257	947
30	LOP	32	111	29	61	43	276
5	ANH	14	105	93	25	38	275
48	TAR	35	42	5	28	15	125
19	DAN	11	32	12	29	19	103
39	PAR	11	19	13	15	14	72
36	OLD	10	21	19	17	7	74
6	ANO	7	31	9	8	11	66
21	DID	1	33	19	8	3	64
43	PTE	6	10	1	18	16	51
50	UAP	4	30	4	2	8	48
33	MANI	6	9	0	23	2	40
40	PEN	2	18	2	8	7	37
46	SAC	1	16	2	8	7	34
38	PAK	2	19	4	4	4	33
10	BER	0	25	3	3	0	31
27	HAN	3	11	4	6	7	31
20	DIA	1	20	5	2	2	30
1	AFZ	1	3	0	0	0	4
2	ALB	0	1	0	0	0	1
3	ALS	0	0	0	1	0	1
4	AMP	1	7	10	5	4	27
7	AUB	0	1	0	0	0	1
8	BAB	0	0	0	1	0	1
9	BEI	1	2	0	1	0	4
11	BOM	0	1	0	0	1	2
12	BRA	0	1	0	22	0	23
13	BRI	0	1	0	0	0	1
14	CAL	1	15	5	4	1	26
15	CAN	8	9	0	0	2	19

16	CEI	3	0	0	0	0	3
17	CHR	1	6	0	2	3	12
18	DAC	0	1	0	0	0	1
22	ERY	0	2	0	0	0	2
23	FAG	1	0	0	0	0	1
25	GLU	1	2	0	5	3	11
26	HAL	1	16	6	3	1	27
28	IRV	0	2	1	1	3	7
29	KLA	2	5	9	2	4	22
31	LOV	0	1	0	0	0	1
32	MAM	1	11	2	2	0	16
34	NAU	1	1	2	0	1	5
35	NEW	0	0	2	0	0	2
37	ONG	1	5	1	0	4	11
41	PER	2	1	3	2	1	9
42	PIP	8	4	3	1	0	16
44	PYC	2	1	0	0	0	3
45	SAB	0	1	0	0	0	1
47	SYM	0	2	0	0	0	2
49	TET	0	5	1	1	11	18
51	UNK	2	3	0	1	1	7

4.4 Respect of the Annual Coupe Delineation Rules

In keeping with the Guideline for Forest Management Planning, Annual Coupe Delineation Rules does not apply to this annual coupe, because we are still working in forest Compartment One.

5.0 PLANNING OF WORKS

5.1 Planning of logging activities

Annual coupe five and the squared kilometer blocks have been successfully delineated along with 100% stocking of trees above 50 cm dbh using regular grid (north-south/ east-west), and location maps of trees have subsequently been developed. The 2022-2023 Annual Coupe, AC#5 contains the following blocks: E-9, E-10, E-11, E-12, E-13, F-10, F-11, F-12, F-13, F-14, F-15, F-16, G-14, G-15, G-16, H-17 and H-18.

Also, during the 2021-2022 logging season, there were blocks surveyed, enumerated and approved but were untouched, WAFDI wish to bring forward these blocks that contain these species in keeping with section 6 of the Guideline for Forest Management Planning on Opening Schedule, paragraph 4. The blocks include: I-17, I-18, I-19, J-18, J-19, L-13, L-14, N-3, N-4, and O-3. Additionally, during past seasons, Mandra didn't complete the following blocks and wish to re-enter in keeping with Section 6.1, bullet point #2 of our Standard

Operating Procedures and Code, those blocks are: I-14, I-15, I-16, J-15, H-13, J-17, M-20, M-21, N-21, N-22, K-19, L-20, L-21, L-22, O-19, N-19 and N-20. All are within Forest Compartment # 1.

▪ **Planning of the Road Net Work, skid trails and Landings**

A well-managed transportation system provides access for timber removal and other forest management activities. WAFDI has in place efficient and effective access to Gheegbarn #1 Community Forest and this system will be maintained and improved during the season to minimize resource impacts to water quality while also meeting the Company's access needs. The overall goal for new road construction and road maintenance will be to protect or improve water quality. The planned activities within this AOP will help meet transportation objectives. Existing road networks on the Community Forest will be improved for the purpose of hauling logs. Road improvement will consist of minor culvert replacements with some culvert additions and ditch-line maintenance. Roadside brushing will be conducted to control encroaching vegetation and maintain safe sight distance.

Landings are open areas used for processing and stacking logs before they are loaded onto a log truck. It is often referred to by some as the front room of most timber harvests where machinery is stored and many field decisions are made. With little vegetation and a lot of vehicular traffic, landings can be prone to erosion. But such erosion can be controlled effectively without interfering with the function of the site. All of our landings will be created in ways that will not allow the flow of water directly into a stream or other water bodies. Apart from this, we will construct landings to prevent mud from being carried onto adjacent roadways. Landings will also be located on firm, well-drained soil, as far from water as possible and the number of landings will be minimized. All of these activities will adhere to the provisions of the Revised Code of Forest Harvesting Practices of Liberia.

▪ **Procedures for Planning and Monitoring of the Logging Operations**

Skid trails are pathways used to transport logs from their areas of harvest to the landing. Skid trails are usually for temporary use. However, if they are not constructed or used correctly, they can have long-lasting impacts on water quality and soil conditions. When constructing skid trails in our contract area, we will:

- Minimize the number and area to be covered by skid trails to reduce environmental impacts;
- Locate landings before locating skid trails;
- Avoid locating skid trails in areas excluded from harvesting and where possible promote uphill skidding or on flat ground in areas of good soil drainage;

- Minimize disturbance to the soil such that surface runoff does not result in sediment transport into water bodies;
- Avoid widespread or random skidding patterns with repeated passes;
- Create skid trails only as wide as necessary to safely operate our equipment and conduct our harvesting operations.

Also, trees meant for harvesting are marked; and felling will be done in line with the provisions of the Revised Code of Forest Harvesting Practices in Liberia; therefore, as logging operations commences, a team of forest technicians will keep monitoring the process to ensure that only the trees marked for felling are felled, and felling takes place in approved blocks and within the contract area.

I. Harvest Monitoring and post-harvest Diagnosis

• Post-harvest Diagnosis and Field Controls

Commercial Logging has great impact on the soil environment, which may lead to erosion of the surface and the drainage structures. Henceforth, in order to balance the need for access into the forest, while minimizing environmental impacts, WAFDI will adhere to its Environmental Management Plan (EMP) as we conduct logging operations. We will also ensure proper forest road network, which allows adequate access and minimizes impacts to the environment on the Community Forest.

II. Post-harvest Activities

▪ Management of KM-Square Block Closure

Blocks shall be closed upon the completion of harvesting of the approved yields. In each 5-year compartment however, a re-entry may be requested for blocks not completely felled.

▪ Road Maintenance and Closure

We have resolved to maintain forest road network in our concession; all side drains, turnout drains and culverts that will not be removed shall be left in good working condition. Similarly, roads that are not to be used until the next rotation shall be closed. For roads that are intended to be decommissioned, log culverts and temporary bridges shall be removed to allow unobstructed water flow, however, WAFDI will continue to maintain the road from Waka's Town to the approved blocks, North of the concession which is approximately 78 kilometres.

▪ Measures to Mitigate Negative Impacts

Though we may not have the sophistication but all natural impacts shall be mitigated once they are encountered during our operations.

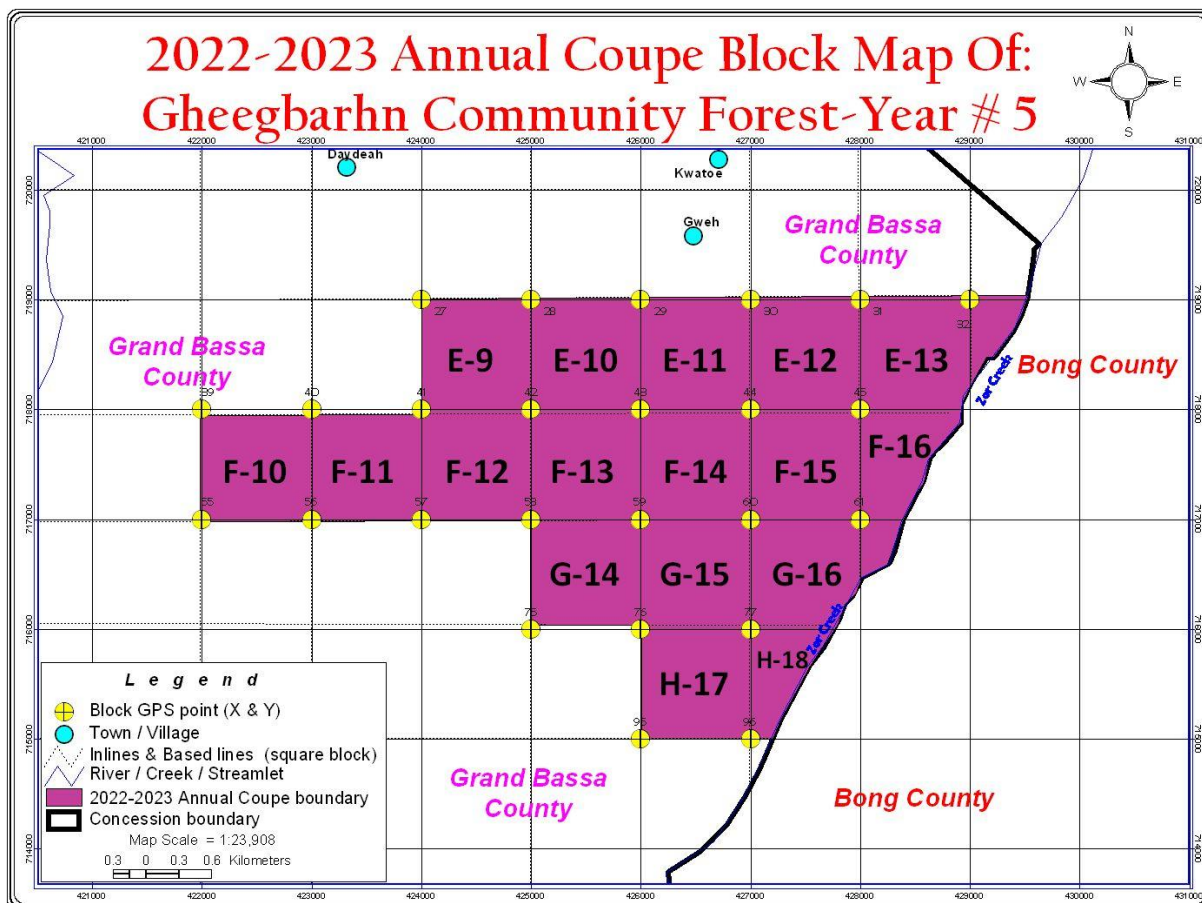
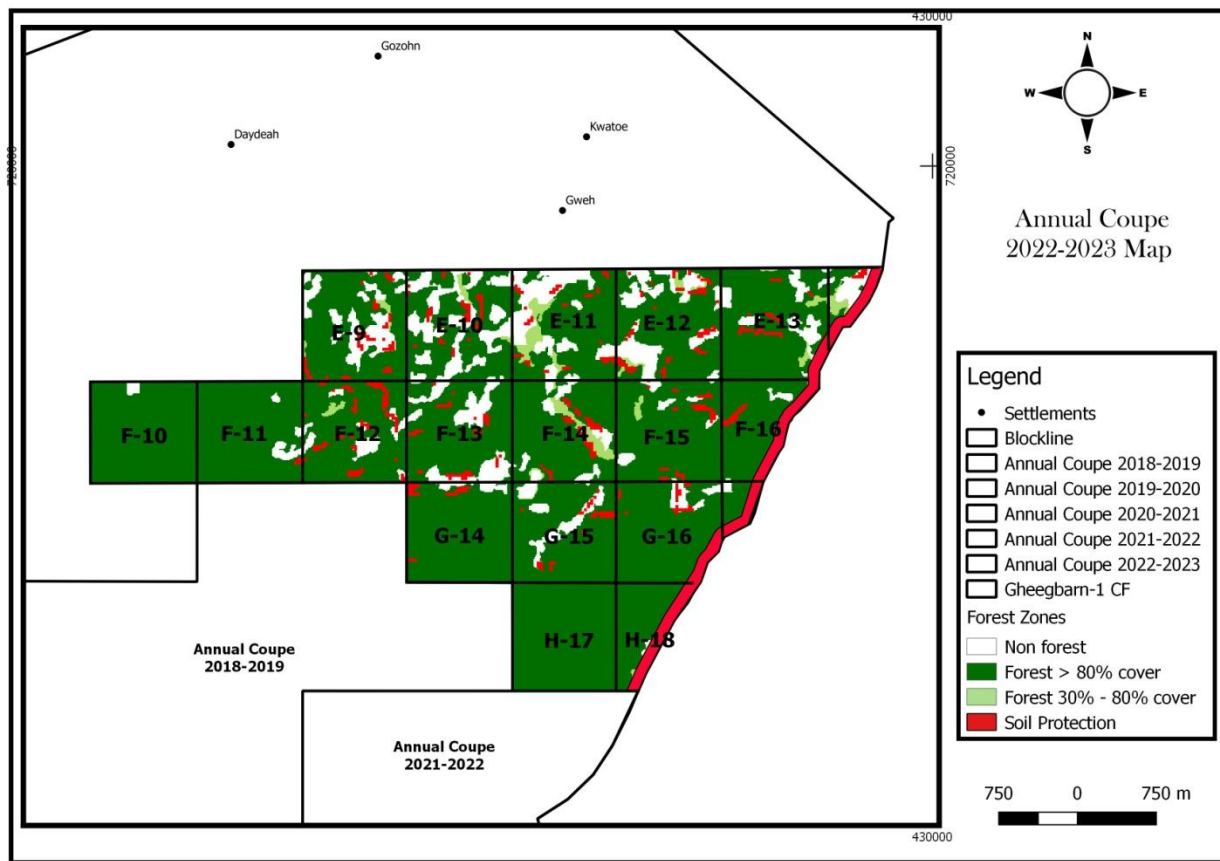


Figure 4: Annual Coupe Block Map

5.2 Planning of other Activities

Silvicultural Activities

Silviculture treatment and reforestation activities of any nature are not required on Gheegbarn #1 Community Forest. The Forest will recover itself after harvest through a process of natural regeneration. Besides, all timber harvesting activities outlined in the AOP will be guided by the requirements of the Revised Code of Forest Harvesting Practices.

▪ **Social Program**

To ensure that our plans and policies of our social programs are well pronounced to forest dwellers in our contract area, the West African Forestry Development Inc. will continue to seek consultation with the affected communities through the Community Forest Management Body. We will also ensure that our social programs are fully implemented to enhance the living condition of the people.

▪ **Environmental Program**

The Gheegbarn #1 Community Forest has multiplicity of aquatic environments, to include streams, wetlands and water bodies. These aquatic environments are critical to the health of the forest ecosystems. They serve as important habitat for many species and the source of fresh water for all species in the forest. The water quality of these aquatic environments impacts ecosystems beyond the boundaries of the Community Forest. As one of our management objectives aquatic habitats will be protected in order to maintain the overall health of the Forest ecosystem. In keeping with the Revised Code of forest Harvesting Practice of Liberia, WAFDI has demarcated 4% of forest land which recompense for steep slopes, swamp etc. as protection and conservation zones. We have also put in place mitigation measures to address any would be negative impacts that spill over from our harvesting operations. In the same vein, debris from our operations will be contained in a pit far from water source and will be prepared in a way that there will be no contamination to underground water. Furthermore, WAFDI has create corridors in blocks where felling is to commence to enable faunas migrate from the blocks before felling; some critical fauna's habitat will be annex as a no-go zone for felling.

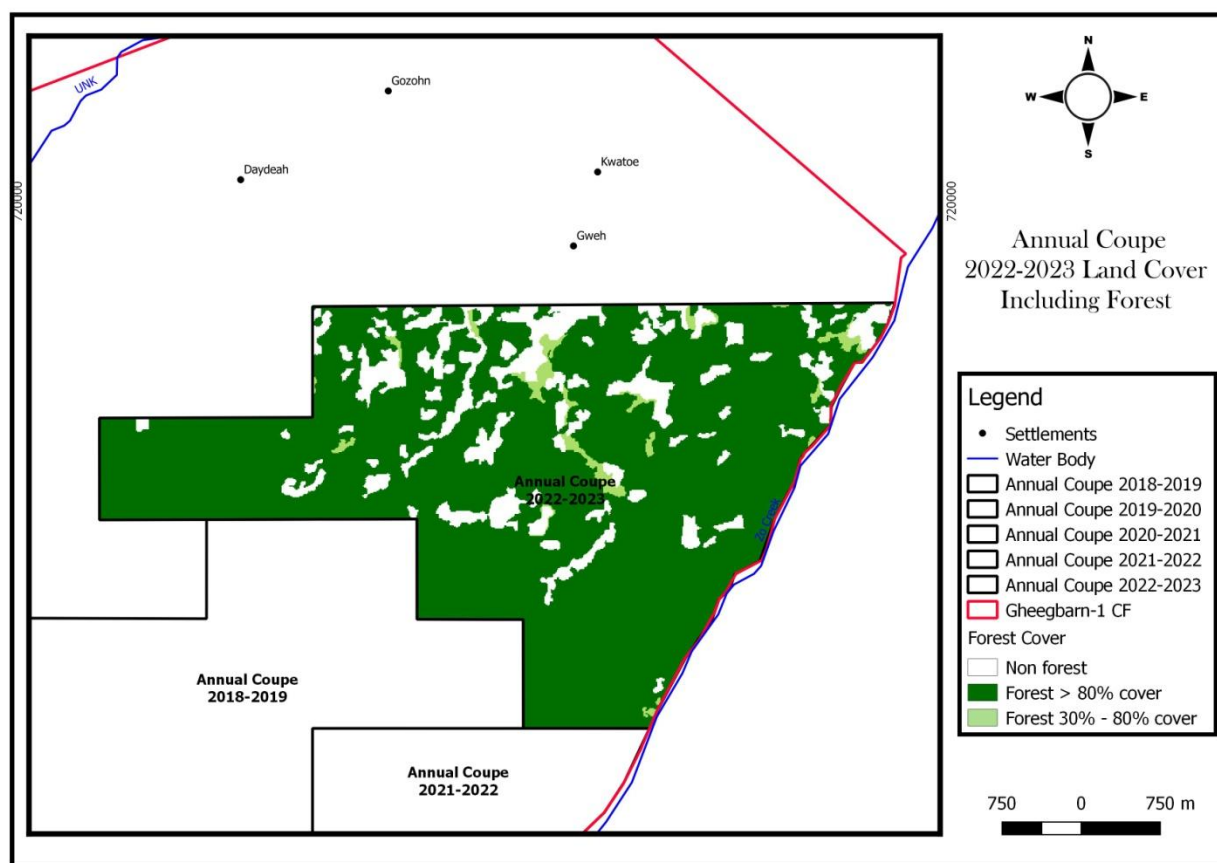


Figure 5: Forest Classification and Forest Zone Maps

5.3 Activity Planning/ Implementation Chart

The planned activities that are to be implemented during the implementation of this AOP are presented in Table Seven below:

Table 7: Activity Forecast/Implementation Chart

ACTIVITY	SCHEDULE OF IMPLEMENTATION											
	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Pre-harvest Enumeration												
Annual Operation Plan Submission												
Secondary road Rehabilitation												
Harvesting												
Post-harvest												

Operation													
	Planning of other activities												
Consultation													
Environmental Program													

West African Forest Development Inc. March 7, 2022

