



Environmental & Social Monitoring report Q4 2018 Tain II Plantations





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INTRODUCTION

This is the report on social and environmental performance of Form Ghana during the year 2018. The report is produced to comply with the requirements on reporting of the African Development Bank.

1. COMPANY PROFILE

EPA #	Information required	Information provided					
1.1	Name of Company	FORM GHANA LTD					
1.2	Type of Undertaking	Reforestation / Forest Management					
1.3	Year of establishment of project	2012					
1.4	Location	Tain II FR, Brong Ahafo					
1.5	Contact Person:	Mr. W.A. Fourie Position: Managing Director					
	Tel. No.	0544441440					
	Email:	W.fourie@formghana.org					
1.6	Address for correspondence	PO Box SYI 211, Sunyani, Brong Ahafo, Ghana					
1.7	Permits / Licenses and Certificates obtained. Do you have valid permits form the following institutions?:						
No	Institution	Permit		Permit No / License No / Date of issue /Expiry			
		Yes	No				
1	Environmental Protection Agency	X		CA: 470.2/LG/FO/02 exp. 14-08-2021			
2	Water Resources Commission	X		FGLID 409/18 exp. 31-12-2021			
3	Forestry Services Division		X				
4	Wildlife Division		X				
5	Others (pls. specify)		X				
1.8	Work Force category						
Division	General Workers			Management			Total
	Male	Female	Total	Male	Female	Total	
Sunyani(HQ)	3	2	5	8	1	9	14
Sunyani(HQ) C							
Akumadan P	84	47	131	10	2	12	143
Akumadan C	144	42	186				186
Berekum P	174	44	218	25	5	30	248
Berekum C	323	164	487				487
G.T	728	299	1027	43	8	51	1078
M/F ratio	71%	29%		84%	16%		
Permanent staff (P)							
Casual Staff (C)							

2. SITE DESCRIPTION

EPA #	Information required	Information provided					
2.2	Location and major landmarks	The Tain II Tributaries forest reserve is found in the Brong Ahafo region close to the border with Ivory Coast. The Reserve is found south of the River Tain, which constitutes most of its northern border. To the south the town of Berekum is found.					
2.3	Geographical Coordinates of Concession	The plantations are located within the Tain II Tributaries Forest Reserves in Berekum District, in the Brong Ahafo Region. Coordinates (WGS 84 - UTM) for the reserves are:					
	Point	X-coordinate	Y-coordinate				
	1	538.389,80	848.675,76				
	2	551.079,34	846.983,81				
	3	552.831,69	837.859,44				
	4	543.767,75	836.409,21				
5	536.274,87	842.995,68					
2.3	Total land take of concession	14576 hectares					
2.4	Actual Area Forested	6711,2 hectares					
Planted areas	LEASE AREA (ha)	YEAR (ha)	TOTAL AREA (ha)	INDIGENOUS (ha)	TEAK (ha)	UNPRODUCTIVE (ha)	AREA PER RESERVE (ha)
Tain II	14576	2013	637.1	19,1	618		14576
		2014	2098.9	194.7	1904.2		
		2015	1575.3	91,8	1483,5		
		2016	87.6		87,6		
		2017	610.9	62,9	548,0		
		2018	1701.4	301.2	1400.2		
		Total	6711.2	669.7	6041.5		
2.5	Area under conservation	386.5 hectares					
	Type of conservation: strict	0 hectares					
	Type of conservation: partial	368.5 hectares					
	List some species found: Trees:	Afzelia africana, Albizia ferruginea. Antiaris toxicaria, Ceiba pentandra, Hildegardia barteri, Erythrophleum ivorense, Khaya anthoteca, Khaya grandifoliola, Milicia excelsa, Triplochiton scleroxylon, Terminalia superba.					
	Mammals	Civet, Cusimanse Mongoose, Genet, Marsh Mongoose, Brush-tailed Porcupine, Giant Rat, Grasscutter, Ground Squirrel, Bushbuck, Maxwell duiker, Red River Hog, Royal Ante-					

		lope
	Birds:	Sixty (60) species, belonging to 23 families were recorded on transects (Table 13 and Appendix F). More than 10% of the species recorded belongs to the Weavers and Malimbés family (Ploceidae). Other families included Flycatchers (Muscicapidae), Bulbuls and Greenbuls (Pycnonotidae) and Pigeons and doves (Columbidae) with a record of 8% of the species each. The White-throated Bee-eater (relative abundance of 13.861), Black-winged Bishop (7.129), Red-eyed Dove (5.743), Common Bulbul (4.752), Zitting Cisticola (4.752), Viellot's black Weaver (3.960) and Grey-backed Cameroptera (3.960), were the most recorded and widespread bird species. The Families Alcedinidae and Accipitridae accounted for about less than 1% of the specimen recorded and also produced the least number of species. Most bird species were recorded in the forest vegetation (38), followed by degraded areas (33), teak plantations (21) and then farm-lands (19)
2.6	List any Rivers / Streams traversing or within 100 m of the concession:	Tain river forms the northern border. Some affluents find their source inside the reserve in the wet season. They do not carry water in the dry season. One such affluent is the Owusutaka.
2.6.1	What is the buffer distance maintained between the concession and rivers?	The buffer distance between the teak plantation and the streams (<4-5 m wide stream beds) is thirty meters.
2.7	Approximate distance of rivers to nearest settlement to the concession:	The villages close to the reserve are : Akrofo, Arkokrom, Asantekrom, Dadease, Domeabra, Ampenkrom, Kojoakokrom, Kotaa, Kutre 1, Kutre 2, Meremano, Mpatapo, Mpatase, Namasua, Nfodwokrom, Oforikrom, Pepaase, Tainso. These villages are all found within 10 kilometers from the Tain II reserve.
2.8	Adjacent land Uses:	North: Agriculture South: Agriculture East: Agriculture

		West: Agriculture
2.9	What ancillary facilities do you have on site:	<p>The site has the following facilities:</p> <ul style="list-style-type: none"> • 3 staff house, • 1 guesthouse • 2 office blocks • 1 workshop • 1 training centre • 1 canteen • 1 store • 1 fuel station • 1 sanitary block • 4 lockable sea containers (as stores) • 1 guard house • On the boundaries of the plantations there are several guard shelters • 4 fire towers (inside the plantation)
2.10	Distance between the concession and the nearest town / village:	Distance to Berekum is about 10 kilometres. Some villages are within a distance of 1 kilometre.

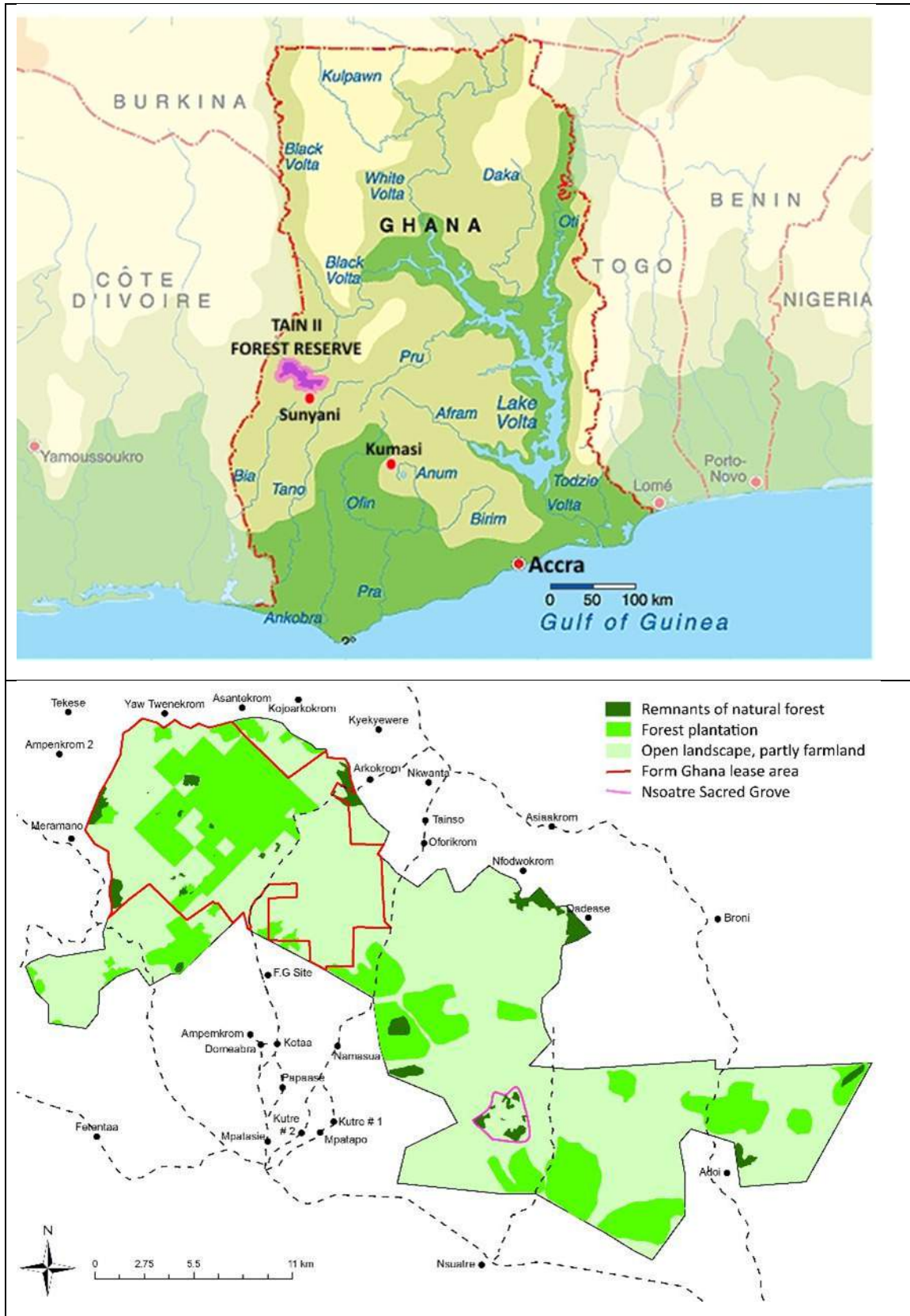


Figure 1: Map of project location

3. COMPANY OPERATIONS

EPA #	Information required	Information provided	
3.1	Type of forestry development	1) Production management	
		3) plantation	
3.2	Answer the following section for forest establishment:		
3.2.1	Production Details: Planting Material Information:		
Species Cultivated /planted	Source e.g. own nursery, private nursery, FD	Area (hectares)	% of planted area
Teak	Own nursery	6041,5	90%
Indigenous (Ofram, Awiemfosamina, Kokrodua, Potrodom, Onyina, Emeri, Watapuo	Own nursery and contract nurseries	669,7	10%
3.2.1.b	Expected products from the development:	Teak billets Teak poles Teak sawn timber	

3.2.2 Brief description of operations – from nursery to harvesting (attach an environmentally based flow chart, indicating waste streams) and how the waste is managed.

Plant production: Plant production takes place in the nursery at Akumadan site (irrigated), at Berekum site (rain fed) and at a rain fed nursery inside the plantation area. Each year the terrain for the nursery is cleared of weeds, ploughed and beds are created by creating footpaths every 1 by 5 meters. The seeds are then positioned in rows 10 centimetres apart and 15 centimetres apart in the row. Weeding is done every month. Spraying is only foreseen when insects or fungi attack the plants.

The nursery is also the site for the offices and the workshop. Waste produced is workshop / garage waste (tires, used oil, used filters, used car batteries). Another category of waste produced is the household / office waste (paper, food scraps and peelings). Nursery waste would mainly be packaging of phytosanitary products used in the plantation. See protocol 4 for waste management.

Terrain preparation: Terrain preparation is done in several separate activities; land demarcation, land clearing, spraying, ploughing, road construction and pegging.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Land demarcation: This activity consists of the measuring and marking in the field of planting blocks. The work consist of tracing lines using compass and GPS. Along the lines pegs are planted and the vegetation is cut with cutlasses.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Land clearing: This work consist of manually cutting weeds and bushes as well as the removal of small trees with chainsaws. When needed the cut vegetation is burned to provide clean terrain for ploughing and subsequent work.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Spraying: This is the application of glyphosate on the weeds that sprout again after land clearing.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Ploughing: This activity consists of opening up and turning the soil with a tractor pulling a disc plough. Ploughing can only be done in areas with few tree stumps present, and where the soil is of a type allowing it. Some soil react to this activity by severe concretion forming.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Road construction: This work consists of the removal of the top layer of the soil in a straight line to a width of 6 meters. This work is done using a Bulldozer or a grader. The removed soil is pushed to the side of the road. The profile of the roads is rounded with a drainage ditch to either side. At regular intervals exit drains are created to allow water to drain of the surface into the vegetation on the site. Drains are made in such a way that drainage of water directly into streams is avoided.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Pegging: This activity entails the placement of sticks at intervals of 3 by 3 meters in the terrain. It is done to provide a regular grid based on straight lines on which to plant trees. The sticks for this work are collected in the surroundings and are often made of Bamboo or Raphia.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Planting stumps: Stump planting consists of digging a small hole of 20 centimetres diameter and 25 centimetres depth. In this hole a stump is placed in an upright position, and the soil is filled back into the hole around it. After filling the soil is compacted by the workers using their heel.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Planting polybags: Indigenous trees in polybags are planted in a fashion similar to the planting of stumps. It is done by digging a small hole of 20 centimetres diameter and 25 centimetres depth. In this hole the polybag is placed in an upright position. The poly-bags is removed from the root ball of the plant, and the soil is filled back into the hole around it. After filling the soil is compacted by the workers using their heel.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4). Polybags that held the plants are also taken back to site.

Weeding: weeding consists of the removal of vegetation growing up around the Teak or indigenous trees. This needs to be removed in order to avoid competition. A few different techniques will be used, such as bush knife weeding (done by teams wielding bush knives), chemical weeding with glyphosate (done by teams using droplet applicators) and circle weeding (done by teams using hoes to scrape the soil in a circle around the young plants).

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Pruning: the branches that the tree produces have to be removed at regular two year interval. Trees can be removed to a height of about one third of total tree height. Taking of more branches reduces the growth speed of trees. Work is done manually using telescopic hand saws.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Thinning: When the trees grow they start competing with each other for space and re-sources such as nutrients, water and light. In order to assure continued growth part of the trees will need to be removed. These trees are sawn down using chainsaws or harvester machines. The first thinnings have no commercial value and are left to decompose and enrich the soil. In subsequent thinnings the stems are taken to the road side for loading on trucks.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Final felling: At the end of the rotation the trees will be harvested. This activity consists of the felling and cross-cutting of the trees. This activity will be done using harvesters.

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Monitoring: The project activities and intended results are monitored according to a pre-defined plan (see monitoring plan) to see how effective project implementation is and whether the intended results (growth, biodiversity development etc.) are achieved. Monitoring can consist of measurements in plots (in Teak or indigenous planting for in-stance), inventories (biodiversity studies) or regular checks (cleanliness of the site, waste disposal etc.).

Waste here is associated with the presence of workers: plastic bags and food leftovers: waste bins provided make sure the waste is collected and brought back to the nursery (see protocol 4).

Waste disposal: A contract has been signed with Zoomlion. Zoomlion is the largest waste disposal and recycling company in Ghana. Zoomlion will collect and dispose of all solid waste generated by Form Ghana.

EPA #	Information required		Information provided	
3.2.3	Indicate the type, source, quantities and mode of application of chemicals if applicable. Quantities given is for 2018 until end of August.			
	Type	Source	Quantity / Annum	Mode of application
1	Kalach (Glyphosate)	Dizengoff, Accra	29,332 litres	Droplet applicator (Mankar)
2	Clethodium (Select EC 120)	Wienco RMG	-	Droplet applicator (Mankar)
3	Triclopyr(Triclon)	Wienco RMG	650 litres	Knapsack sprayer
3.2.4.	What area of land has been planted for the year under review		1701,4 hectares have been planted	
3.2.5	Briefly describe harvesting and post harvesting operations		Currently only thinning has been undertaken. This was described under 3.2.2.	
3.3	This section applies to the extractive sector / Production Forest:			
3.3.1	Type / name of forest:		Tain II Tributaries Forest Reserve / Teak plantation	
3.3.2	Type of forestry product harvested:		None in 2018	
3.3.3	Quantity of forest product collected or harvested per annum		None in 2018	

3.3.4	State the purpose of the forest product:	N/A
3.3.5	How do you collect or harvest these products (mechanism	Until 2033 all products are part of a thinning. Thinnings are a necessary activity in plantation forestry where part of the trees are removed to make room for the ones remaining. The marked trees are checked by FC. The felling team then goes to the trees to fell them and cut them in sections according to specifications. After this the logs are extracted by tractor to the road side. Here the poles are loaded onto trucks. The billets were squared close to the plantation.
3.3.6	Do you work manually or do you use equipment	For the felling and extraction equipment is used (chainsaws and tractor).
3.3.7	List equipment	<ul style="list-style-type: none"> • Husqvarna chainsaw • Farmtrac tractor • Winch
3.3.8	Area operated / size of the land covered:	No extraction in 2018

4. ENVIRONMENTAL HEALTH AND SAFETY POLICY

4.1 What were your main environmental, occupational health and safety policy objectives for the year? List them.

Environmental objectives for 2018 are the continued protection of the plantation and buffer zones from bush fire and other environmental hazards and the flora monitoring of the buffer.

Occupational health and safety objectives are to have no work related disease and no serious work related injuries in 2018

4.2 What were your main environmental, occupational health and safety policy targets for the year? List them.

Environmental objectives for 2018 are the continued protection of the plantation and buffer zones from bush fire and other environmental hazards and the flora and fauna monitoring of the buffer.

Occupational health and safety objectives are to have no work related disease and no serious work related injuries in 2018. An important step in this is the acquisition of new vehicles for transport of personnel.

5. ENVIRONMENTAL MANAGEMENT ACTIVITIES

EPA #	Information required			Information provided		
Origin	Type	Reduction	Hazard classification	Disposal	Tracing	Tracing
Workshop	Tyres		Hazardous if burnt	Zoomlion	keep way-bills	Zoomlion
	Batteries (dry cell)	Use re-chargeable batteries.	Hazardous	Zoomlion		Zoomlion
	Batteries (vehicle) (lead-acid)		Hazardous	Zoomlion	keep way-bills	Zoomlion
	Used oil		Hazardous / potential for recycling	Total	keep way-bills	Total
	Oil filters		hazardous / partial potential for recycling	Zoomlion	keep way-bills	Zoomlion
	Used cables, wreckage and other metal waste (scrap)		inert / recyclable	Zoomlion	keep way-bills	Zoomlion
Stores, nursery, plantation	Non-hazardous waste (plastics planting bags)		Non hazardous / potential for recycling	Zoomlion	keep way-bills	Zoomlion
	Hazardous waste (paint, thinner)		hazardous	Zoomlion	keep way-bills	Zoomlion
	Hazardous waste (pesticide package)		hazardous	Zoomlion	keep way-bills	Zoomlion
	Waste from harvest operations	Felling technique	no danger	Zoomlion	keep way-bills	Zoomlion
Office buildings	Fluorescent Light Bulbs	Best possible quality.	hazardous	Zoomlion	keep way-bills	Zoomlion
Stores (containers), nursery (bags, trays)	Plastic waste	Reusing containers, trays	Not hazardous / potential for recycling	Zoomlion	keep way-bills	Zoomlion
5.1	What type and quantities of waste does your operation generate e.g. liquid, farm waste (plastics) List them:		<ul style="list-style-type: none"> 81 used tires Some of the tires are being used to create anti erosion measures at Berekum Site. 			

EPA #	Information required	Information provided
	a) solid	<ul style="list-style-type: none"> • 145 kg Plastic bags/ plastic bottles • 23 car batteries
	b) liquid	<p>Liquid waste concerns mostly used engine oil</p> <p>Volume produced in 2018 is 6,125.5 litres</p>
	Hazardous waste produced	494 kg of chemical containers
	Medical waste	<p>171 kg of medical waste</p> <p>There is an agreement with pharmacy , 3 months drugs before expiry are exchanged.</p>
5.2	How do you manage the waste streams listed in 5.1. above) handling, treatment and disposal	<p>Protocol 4 has been adapted to include the new cooperation with Zoomlion. Zoomlion has been contracted to manage all solid waste form Form Ghana. They will report on this monthly. The website of zoomlion provides some information:</p> <p>http://www.zoomlionghana.com/index.php/en/</p>
5.3	Provide brief information on the following	
	a) measures put in place to prevent bush fires	<p>Form Ghana has an intensive fire prevention program (see attached protocol). The program is based on awareness raising among the neighbouring villages and the workers, the creation of fire breaks, the surveillance using fire towers (4) and the continuous posting of rapid response teams that have been specifically trained in fire-fighting.</p>
	b) practises employed to control weeds and pests	<p>Weeding is an intensive operation which takes place 2 to 3 times a year. The terrain is weeded manually with cutlasses twice and weeded chemically once.</p>
	c) practises employed to conserve biodiversity	<p>Bio diversity conservation is managed by Form Ghana through the protection of the buffer zones with indigenous vegetation, through the strict control on hunting and through fire prevention. The monitoring of the effect of this conservation measures shows it is working (latest report on flora monitoring is available on</p>

EPA #	Information required	Information provided		
		www.formghana.com).		
5.4	List soil management practises undertaken (mulching, erosion control, etc.).	Form Ghana protects the soil through re-forestation practises and erosion control. Erosion control mainly takes place on the roads.		
5.5	How did these practises contribute to increase in production level	No increase detected and also not expected.		
5.6 a	Did you experience disease / pest infestation?	No diseases or pests were detected in Tain II in 2018. This was established during PSP monitoring. According to the protocol it is the observation of a pest which triggers an investigation of the course of action to follow.		
b	How were the diseases / pests managed?	No management needed, as there were no pests or diseases.		
c	Practises employed to manage admitted farms:	The admitted farms are not all inhabited. They do however present a potential fire risk. Form Ghana ensures that the admitted farms are managed in such a way that no fire will come from there.		
d	Practises employed to manage neighbouring communities	Form Ghana engages with the neighbouring communities in an active way through the organisation of stakeholder meetings and sensitisation meetings. Form Ghana believes in the build-up and maintenance of good relations with the communities and has several protocols to help staff with the interaction with the communities.		
e	Practises employed to manage livestock grazing / fire	Life stock grazing is a threat in the Tain II Reserve. Interaction with community leaders, officials and the forestry commission has led to sensitisation and action for the eviction of herds of cattle from the reserve. Fire was discussed under 5.3.a		
5.7	Provide brief information on the following:			
5.7.1	Chemical management a) quantity of chemicals utilised and final disposal of containers, unused or expired products:			
	Type	Quantity / Annum	Final disposal site	Qty of unused or

				expired product
1	Kalach (Glypho- sate)	29,332 litres	Containers removed by Zoomlion	None
2	Clethodium (Se- lect EC 120)	-	-	None
3	Triclopyr(Triclon)	650 litres	Containers removed by Zoomlion	None
3.7 b	b) Management practises in place to prevent / control discharge of chemical; con- taminants into the envi- ronment:		Form Ghana adheres to it protocols and procedures. In this case protocols P05 Re- sponsible use of pesticides, Protocol 04 Waste Management and P16 storage of Fuels, lubricants and toxins	
5.8	Indicate resource use (energy and water) for 2018:			
Fuel Type	Diesel (litres)		Petrol (litres)	
	Akumadan	Berekum	Akumadan	Berekum
Total	35,675	146,974	9,631	16,101
	Power:		The power for the site was generated by own solar cell system since 2014: 119,142 KW	
5.9	Explain the variation (in- crease / decrease) in trend:		Fuel use is much increased when compared to 2017. This is due to the reception of first instalments of the AfDB loan allowing for increased activities of maintenance and planting necessitating transport and the use of power saws.	

6. OCCUPATIONAL HEALTH AND SAFETY (OHS)

EPA #	Information required	Information provided
6.1	Indicate any OHS training undertaken during the year under review:	
TRAINING SUMMARY - 2018		
DATE	TOPIC	PARTICIPANTS
5 Jan 2018	Effective team leadership	21
8 Jan 2018	Pruning	87
15-17 Jan 2018	Marking for Thinning	15
13-19 Jan 18	PSP Establishment and Monitoring	5
18-21 Jan 2018	Fire Fighting Techniques	121
22 Jan 2018	Urinary Tract Infection	430
5 Feb 2018	Frill Treatment of Invasive Trees (Cassia Species)	6
26 Feb 2018	Lassa Fever	561
26-28 Feb 2018	Marking for Thinning	4
5-7 Mar 2018	Field Application of Knapsack and Responsible use of herbicide	79
5-10 Mar 2018	PSP Establishment and Monitoring	10
5-mrt 2018	Pegging	246
13-mrt 2018	Security Issues	28
23-apr 2018	Production of Seedlings (Teak) using Jiffies	7
3-5 May 2018	Teak Planting	31
7-9 May 2018	Teak and Indigenous Trees Planting	395
21-May 2018	Transport Policy	20
4-June-2018	Radio Operating	17
5-June-2018	Radio Operating	16
29-June-2018	Marking for thinning using new method	29
6-jul7-2018	Company mission and Vision statement and Gender policy	25

9-10 July-2018	Full Cover Spraying, Frill Treatment of Invasive Trees, Responsible use of Herbicide, Responsible use and Maintenance of Spraying Equipment	12
9-14 July-2018	New Basic Chainsaw	7
16-17 July-2018	Chainsaw Refresher Training	5
18-19 July-2018	Chainsaw Refresher Training	6
20-21 July-2018	Chainsaw Refresher Training	7
27th July, 2018	HIV Awareness	170
14-August-2018	Disciplinary Procedures	26
22-23 August-2018	Nursery Monitoring	11
31-August-2018	Company Transport Policy	32
31-August-2018	marking for thinning refresher	30
10/15 September 2018	Fire Team Members Training and Use of new fire Equipment	20
17/20 - September 2018	Security Guards and Drivers Security-SSD Training	8
28- September 2018	Internal Rules and Regulations	177
1-3 -October 2018	Security Guards (New Recruits)	10
11- October 2018	Management Basic Excel Training	9
16- October 2018	Management Assistants, Foremen and Team leaders Leadership Training for Lower Management	17
5-8-November 2018	Soil Augering	14
5-10- November 2018	Fire Tower Operating Duties	8
15-16- November 2018	Pruning	40
15- November 2018	Excel Training	9
19-21- November 2018	Forest Fire Fighting	18permanent 17 Casuals
22-24- November 2018	Forest Fire Fighting	30Permanent 64 Casuals
8-December 2018	Domestic fire	27

11-December 2018	Job grading	16
12-December 2018	Dehydration	179 permanent 182 casuals)
6.2	Did you undertake medical check-up for staff? Yes / No:	No
6.3	Have you registered staff under any Health Insurance Scheme? Yes If yes, name scheme	National Health Insurance Scheme of Ghana
	Do you have the following? Washrooms:	Yes
	Personal Protective equipment:	Yes see protocol P10, personal protection
	First aid Kit:	Each team in the field has a first aid kit and a trained first aider. All vehicles have first aid kits
	Fire extinguisher	Yes, Fire extinguishers are kept at strategic locations.
Medical assistance		
	Year	2018
Workers		735
Medical Attention		2555
Hospital Intervention		98
During 2018 medical attention was issued 2555 times. The most frequent ailment was musculoskeletal pain (709 times).The second most frequent ailment was Cough that occurred 314 times. Stomach ache and Head ache occurred 278 and 234 times respectively. During 2018, 98 cases were referred to hospital for more detailed diagnosis or further treatment. There were 18 accidents, which are described in detail below.		
6.5	Did you record any accidents during the year? If yes indicate the type(s) of accidents and frequency:	18 accidents of which 15 occurred during weeding and 3 during spraying
6.6	What accounted for these accidents?	With weeding the accidents are cutlass wounds or scrapes due to pierced boots.
6.7	How were the accidents managed?	Wounds were dressed. One case was referred to hospital.
6.10	Provide a brief on the company's emergency	Form Ghana has a protocol which dictates how to act in case of emergency. This is Protocol 08 First

	response plan:	Aid Procedures & Emergency Evacuation.		
6.11	Provide a brief on community social responsibility			
Date	Location	Type of meeting	# of people present	Topics (Agenda) discussed
12-1-2018	Arkokrom	Community Meeting		Build relationship by engaging them to work with Form Ghana
12-1-2018	Apenkrom near Berekum	Intercropping farmers/Community Meeting	21	"Hamattan season and wild fire prevention. No fire goal, enhanced structures for fire prevention"
21-1-2018	Domeabra & Kotaa	Intercropping farmers/Community Meeting	40	"Dynamics of Hamattan season. fire prevention in the forest reserve and on plantation. Intercropping agreement, rules & regulation"
26-1-2018	Arkokrom near Seikwa	Intercropping farmers/Community Meeting	60	"Hamattan & fire season Intercropping agreement, rules & regulation No fire goal, enhanced structures for fire prevention"
30-1-2018	Seikwa	Visit to Traditional Council of Seikwa	5	To brief Traditional council on landscape project
30-1-2018	Nsakaw	Visit District Assembly of Seikwa	3	To brief District assembly on Landscape project
1-2-2018	Berekum	Visit to seedlings contractors	3	To speed up work at contract nursery to be able to meet contract deadline
1-2-2018	Akumadan	Project Affected People	5	Update PAPs on their settlement progress in Kotaa
2-2-2018	Arkokrom	Intercropping farmers/community meeting	80	1).Introducing Operation Manager. 2).Opportunity for community member to work with Form Ghana as Form Ghana is now closer to the Community. 3). Encourage farmers to register in becoming legal intercroppers in Form Ghana lands
5-2-2018	Sunyani	Visit to three seedlings contractors	3	To speed up work at contract nursery to be able to meet contract deadline
6-2-2018	Sunyani	Invitation,Solidaridad Project launching	150	World bank's Grant Mechanisms for 52 local communities in Brong Ahafo and Western Regions of Ghana
8-2-2018	Arkokrom	Community meeting	5	To assess crossing point for foot bridge
9-2-2018	Koraso	Community meeting	6	To assess extent of wildfire in the community
16-2-2018	Asantekrom	Intercropping farmers/community meeting	31	1).Opportunity for community member to work with Form Ghana as Form Ghana is now closer to the Community. 2). Encourage farmers to register to become legal intercroppers in Form Ghana

				na 3) Forest fire is eminent community members must know fire management
18-2-2018	Kwadwoarko	Intercropping farmers/community meeting	21	1).Opportunity for community member to work with Form Ghana as Form Ghana is now closer to the Community. 2). Encourage farmers to register to become legal intercroppers in Form Ghana 3) Forest fire is eminent community members must know fire management
19-2-2018	Sunyani	Meeting with Partners of Landscape project.	8	Formation of Governing Council Roles and Responsibility of member
24-2-2018	Yawtwenekrom	Intercropping farmers/community meeting	18	1).Opportunity for community member to work with Form Ghana as Form Ghana is now closer to the Community. 2). Encourage farmers to register to become legal intercroppers in Form Ghana 3) Forest fire is eminent community members must know fire management
26-2-2018	Berekum	Meeting with consultants on Scoping exercise for land tenure and user right	4	To introduce consultants to project team, obtain an overview of the project and ascertain the status of the project.
26-2-2018	Berekum	Meeting with Consultants , Paramount Chief and Queen mother of Berekum	8	To pay a high courtesy call , introduce the consultants and present an overview of the assignment.
27-2-2018	Berekum	Meeting with Consultants , Berekum Traditional Council, Queen mother and Elders	46	To ascertain the Community and land governance dynamics and the council's role in this regards and ascertain its view on land and tree tenure.
27-2-2018	Berekum	Meeting with Consultants, Berekum Municipal Assembly	9	To ascertain the role of Municipal Assembly in ensuring land and tree tenure security as well as to obtain an overview of the recent projects/initiatives to improve forest governance, management and conservation.
27-2-2018	Akumadan	Meeting with Project Affected People	9	To meet all PAPs and update them on kotaa progress
28-2-2018	Oforikrom	Meeting with consultants, community and farmers	10	To ascertain farmers view and experience relating to land and tree security as well as an overview of the project.
28-2-2018	Namasua	Meeting with consultants, community and farmers	37	To ascertain farmers view and experience relating to land and tree security as well as an over-

				view of the project.
28-2-2018	Akroforo	Meeting with consultants, community and farmers	34	To ascertain farmers view and experience relating to land and tree security as well as an overview of the project.
28-2-2018	Berekum	Meeting with consultants and Customary Lands Secretariat, Berekum	9	To understand the secretariat's role in forest governance in the area and in ensuring land and tree security
1-3-2018	Sunyani	Meeting with consultants and Land Commission	4	To understand land roles and the right documentation in the area also its connection with tree tenure security
1-3-2018	Sunyani	Meeting with consultants District Forest Manager	4	To hold forest governance discussion and its role, challenges and action taken in relation to land and tree tenure.
1-3-2018	Sunyani	Meeting with Office of Administrator of Stool Lands	5	To understand the role in forest governance and its view on land and tree security
14-3-2018	Miremmano (Jaman South)	Community farmer/intercroppers Meeting	13	The present state of the forest reserve. Illegal activities in the forest reserve. Plantation development by Form Ghana. Intercropping and adherence to rules and regulation. Introduction to Landscape restoration project.
15-3-2018	Sunyani	Lead a team of two consultants and an official from Form International, to meet official of the regional Mofa office at Sunyani.	6	Introduction to Landscape restoration project, by Form Ghana Limited and other stakeholders . to learn of the existing extension services. their challenges and the way forward.
15-3-2018	Berekum	Lead two consultants and an official form to meet with local Banks in Berekum	6	Introduction of the Landscape restoration project. To ascertain from the bank if the support farmers with facilities. their term and conditions.
16-3-2018	Akroforo-Berekum	lead two consultants and an official from Form international for a meeting with Akroforo community	32	Introduced the landscape project to the community. the were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement .
16-3-2018	Koraso-Berekum	lead two consultants and an official from Form international for a meeting with Koraso community	45	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
16-3-2018	Berekum	Lead two consultants and an official form to meet with	6	Introduction of the Landscape restoration project. To ascertain from the bank if the support

		local Banks in Berekum		farmers with facilities. their term and conditions.
17-3-2018	Oforikrom - Berekum	lead two consultants and an official from Form international for a meeting with Oforikrom community	16	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
7-3-2018	Namasua	lead two consultants and an official from Form international for a meeting with Namsuacomunity	28	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
17-3-2018	Berekum	lead two consultants and an official from Form international for a meeting with cashew buyers in Berekum	6	Introduced the landscape project to the community. There was discussion on mode of purchase pricing, storage of cashew crops.
18-3-2018	Kotaa-Berekum	lead two consultants and an official from Form international for a meeting with Kotaa community	24	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
19-3-2018	Ampenkro	lead two consultants and an official from Form international for a meeting with Ampenkro community	22	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
20-3-2018	Domeabra	lead two consultants and an official from Form international for a meeting with Domeabra community	9	Introduced the landscape project to the community. There were group discussion to gather information on the type of crops mostly planted, farming practises adopted crop yields, ownership of farm, women involvement.
20-3-2018	Sunyani and Berkum	Visit to Seedlings contractors		Visit three (3) seedlings contractors in Sunyani and One (1) in Berekum
9-4-2018	Sunyani	visit	6	Introduction of Tain II F/R Landscape Project Manager to Form Ghana limited Office at Sunyani
10-4-2018	Berekum	Visit	4	visit to MOFA office at Berekum to introduce the Tain II landscape Manager. introduce the project to the management of MOFA, Berekum
12-4-2018	sunyani	Interviewing of candidates for	3	3 candidates were interviewed via phone

		position of project coordinator		
12-4-2018	Nsawkaw	visit	3	visit to the District Chief Executive of Tain District Assembly and to introduce the Tain II F/R landscape Project Manager and the concept to the District
13-4-2014	Berekum	Meeting with Landscape project manager and interim coordinator with district Director of MOFA	5	meeting with Landscape project manager and MoFa for an MOU for Field trial of improve maize, fertilizer application, management practices and pest control and others
19-4-2018	Berekum	Meeting with MOFA, Berekum	5	to discuss with MOFA for field extension officer to support field trials demonstration at Form Ghana.
20-4-2018	Form Ghana site Berekum	Visit by MoFA field staff	2	A first hand visit to the demonstration plots for the field trials
23-4-2018	Form Ghana site Berekum	Meeting with MoFA field staff	4	to discuss the schedule for the agronomical activities.
23-4-2018	Tainso	Farmers/Community meeting	41	The current state of the Tain II forest reserve. Form Ghana plantation and intervention. Intercropping agreement Forest fires. Tain II F/R Landscape Project.
23-4-2018	Arkokrom / Akrofrom	Meeting female farmers	17	Baseline information from female farmers
25-4-2018	Kotaa	Meeting female farmers	49	Baseline information from female farmers
2-5-2018	Berekum, Nsawkaw			distribution of invitation letters to participants for Tain II Landscape governance board meeting.
8-5-2018	Berekum	Signing of MOU	7	signing of MOU with intercropping farmers involved in field trials of maize of selected plots.
14-5-2018	Tain II F/R-Arkokrom	Community Meeting	13	Presentation of 5,000 cashew seedlings to farmers from Arkokrom on admitted No.33 for not starting fire.
15-5-2018	Tain II F/R-Akroforo	Community Meeting	15	Presentation of 10,000 cashew seedlings to farmers from Akroforo on admitted No.26 for not starting fire
16-5-2018	Kotaa	Rap Kotaa Farmers		Presentation of 10,000 cashew seedlings to 5 farmers with whom we have RAP land agreement
18-5-2018	kotaa	Community Meeting	16	Presentation of a Solar powered borehole water system and a KVIP
22-5-2018	Oforikrom	Community Meeting	20	introduction of the Landscape Project concept to the community and presentation of 2,500 cashew seedlings to the farmers in admitted farm 35 of Tain II F/R
24-5-	Sunyani	Tain II Landscape	10	Agenda- 1- Opening 2-Approval

2018		project governance board meeting		of last meeting minutes and governance board operational principles & protocols 3- Project Update- Organisation 4- Project Update- Meetings & Studies 5- Landscape Strategies 6-Expansion of The Governance Board 7- next meeting 8- Other questions and closing of meeting
30-5-2018	Berekum	Meeting with Consultants from Tradeline consults	4	introduction of the Tain II landscape concept to consultants
31-5-2018	Berekum	Meeting with Consultants from Tradeline consults	4	Meeting with Farmers representative of Akroforo to understand better the crop types, farming practises and marketing of food crop. other facilities visited include financial institutions and dealers of agrochemical inputs.
6-12-2018	Nsuatre,B/A	Stakeholders Meeting	5	Assist workers to better site preparation for the planting.
15/6/2018	Nsuatre B/A	Stakeholders Meeting	2	Presentation of 5000 teak seedlings to Heart Of Chilred Foundation for Planting.
18/6/2018	Nsuatre B/A	Field Visit	7	supported and monitored planting of the teak seedling.
20/6/2018	Sunyani	Stakeholder meeting with the District Forest Manager, Sunyani	4	Met and briefed the Dstrct Forest Manager and the presented the present state Tain II Landscape project and invited the district Forest Office to the Agroforestry, Fire Management and Conservation working group of the Governance Board.
20/6/2018	Nsawkaw,B/A	stakeholder meeting with Tain District Assembly	6	Briefing of the District Chief Executive on the state of the Governance Boards of Tain II Landscape Project and the release of land for trail.
20/06/2018	Berekum	Stakeholder Meeting with Berekum Traditional Council	25	Briefing of the Traditional Council on the state of the Governance board
6-6-2018	Nsuatre,B/A	Stakeholders Meeting	5	Assist workers to better site preparation for the planting.
4-7-2018	Kotaa	Stakeholders Meeting	7	Update on the gains made on the landscape Project and request for community land to used for trial farm.
4-7-2018	Oforikrom	Stakeholders Meeting	6	Update on the gains made on the landscape Project and request for community land to used for trial farm.
6-7-2018	Nsuatre	visit	2	Visit to a 4ha teak plantation by Heart Of children foundation to monitor the performance of the plantation.

7-7-2018	Seikwa	Stakeholder meeting	30	The meeting was at the invitation of Seikwa Traditional council for a first hand briefing of the Landscape project to the council.
12-7-2018	Nsawkaw	Stakeholder meeting	5	Update fo the gains of the Landscape project and invited representatives to the Working groups of the Governance board and also requested the DCE to help the Seikwa traditional to join the project.
16-7-2018	Ampemkrom , Domeabre	Community visit	7	Female farmers engagement
18-7-2018	Memrano, Jemireja and Ebuokrom,	Community visit	30	Female farmers engagement
20-7-2018	Berekum	Stakeholders Meeting	7	Update on the gains made on the landscape Project and request for community land to used for trial farm.
1-8-2018	Nsuatre B/A	visit	5	Monitoring of 4.5ha teak Plantation of Heart of Children foundation and planning for demarcation and surveying of their external boundary
22-8-2018	FG Berekum	Stakeholders meeting of the Fire management working group of Tain II F/G landscape project	10	Review of previous meeting and suggestion and way forward. Training Manual, approval and implementation Sensitization and awareness-development, Implementation
24-8-2018	FG Berekum	Landscape Monthly Progress meeting		Opening ,Welcome & Introduction Form Ghana, One Company Summary update on Project strategies
30-8-2018	FG Berekum	Stakeholders meeting of the Agro-Forestry working group of Tain II F/G landscape project	10	landscape vision- vision map of area, Buffering the boundary via promotion of crop-tree land use .models(maize-cashew-teak agroforestry. Agroforestry models-Development of blocks 200-400ha in the border area. divided into units of 10ha manageable farm size offering net income above minimum wage line. Block Concept- identification of suitable site. Challenges with land lease and establishment access roads. Market links(agri-chain, contract farming)
30-8-2018	FG-Berekum	Stakeholders meeting for Nature Conservation working group of Tain II F/R Landscape project	12	landscape vision- vision map of area, Landscape project Landscape project promotion of crop-tree land use models(maize-cashew-teak agroforestry).Respect remaining

				pockets of forests. Feasibility of establishing a buffer on the perimeter of Tain II F/R as well as establishing eco-link with adjoining Pamu-Berekum F/R. on-going field activities restoration of East Guinea native Forest-(900ha on going). Target of 100ha restoration riparian zone (off-reserve) Flora and fauna survey. identification of remnant forest block in the landscape around Tain II F/R. Community involvement; Use option vs full protection.
4-9-2018	kumasi	Stakeholders Meeting	4	Assist workers to better site preparation for the planting.
7-9-2018	Arkokrom	Visit	5	to convey 13,500 of various species of indigenous seedling to Form Ghana site at Akumadan.
10-9-2018	Form Ghana site Berekum	Visit and meeting with community elders	15	Visit to Arkokrom was upon a request by elders of the community requesting Form Ghana to assist in repairing a bore-hole water system for the community.the visit offered a first assessment of the problem.
13-9-2018	Form Ghana site (Berekum)	Stakeholders Meeting	17	Tain II F/R Landscape Project-Governance board meeting
5-10-2018	Namasua(near Berekum)	Training and field-work	5	A continuation of 10-11th sept training and practical field drills.
5-10-2018	Berekum	Community meeting	2	A short meeting was held with Unit committee rep, Chief and farmers rep.To discuss the agenda and fixappropriate date for the next meeting.
9-10-2018	Nsuatre	visit	3	visit was inspect a contract tree seedling nursery
10-10-2018	Nsawkaw	visit	3	Visit , to inspect a teak plantation and survey its boundaries
12-10-2018	Namasua	visit	41	The visit was to update theDistrict Chief Executive of Tain District Assembly of Form Ghana ltd's support for a request by Arkokrom to repair a broken down water bore-hole system
13-10-2018	Arkokrom	Community Meeting	13	Fire Awareness,Inter-cropping,obeying all rules and regulation of the Inter-cropping Agreement. Intoduction of the landscape project concept
26-10-2018	kotaa	Community Meeting	19	Fire Awareness,inter-cropping,obeying all rules and regulation of the Inter-cropping Agreement Intoduction of the landscape project concept intoduction of the landscape project

				concept.
12-12-2018	Berekum	Community Meeting	16	To officially hand over a transit quarters to 7 households Project affected people from Akumadan. A function was held at Kotaa palace for their resettlement . In attendance were the Elders, chief , Queen mother and Community members .
11-12-2018	Akroforo	Stakeholders meeting	25	Achievement& challenges. Plans to protect gains, Fire education, fire training with selected communities, with support from Fire Services, Update on Tain II Landscape programme, Education on Forest Stewardship Council, progress on Rap.
11-12-2018	Arkokrom	Presentation and education on draft MOU	18	Presentation of draft MOU on Integrated Community Fire Management for community concerns and support.
13-12-2018	Kotaa	Presentation and education on draft MOU	20	Presentation of draft MOU on Integrated Community Fire Management for community concerns and support.
13-12-2018	Nsawkaw	Presentation and education on draft MOU	3	Presentation of draft MOU on Integrated .Community Fire Management for community concerns and support.
15-12-118	Tower 1	visit to Tain D/A	12	Update on revised District By-laws and interacted with District Fire service on fire season preparation .
15-12-2018	Arkokrom	Presentation and education on draft MOU		Presentation of draft MOU on Integrated Community Fire Management for study
18-12-2018	Kotaa	social responsibility	20	Construction of mechanized borehole
19-12-2018	Akroforo	community meeting	25	Signing of MOU on integrated Community, fire management project with Chiefs, Elders and local fire volunteers.
19-12-2018	Arkokrom	community meeting	20	Signing of MOU on integrated Community fire management project with Chiefs, Elders and local fire volunteers.
20-12-2018	Offinso	Community meeting	1	Signing of MOU on integrated Community, fire management project with Chiefs, Elders and local fire volunteers. This include MOU for farmers in Tower 1.
The interaction of Form Ghana with the population and communities is governed by the protocols P 06 Stakeholder Engagement Plan, P 07 Grievance Redress Mechanism and the P 28 Community Development Plan.				

Form Ghana is linked to the communities through the benefit sharing agreement which stipulates that a percentage of the benefit sharing will go to the communities (through the district council).

7. SOCIAL MONITORING PERFORMED 2018

No monitoring has taken place yet in 2018

8. ENVIRONMENTAL MONITORING

Document and justify any change in water quality monitoring points and parameters (OS4)

This information is yet to be generated

Report on water quality (OS4)

Report on quantity of water consumption, bore hole water quality and height of water table (Ghana Water Resource Authority)

Table 1: pumps and volume taken up

Pump ID	Location	Capacity	Total volume pumped 2018	Action time
Ground FOS	Site Berekum	2Hp	5,246	Daily
Ground FOS	BII Berekum	1 Hps	656	Daily
Ground FOS	B46 Berekum	1.5Hp	1,132	Daily
Ground FOS	A24 Berekum		889	
Xtra	Site Akumadan	2Hp	2,654	Daily
Saer	Site irrigation Akumadan	30Hp	10,789	Daily

7.1. Water Quality Monitoring Data (complete the table below) if applicable. Provide coordinates of sampling points.

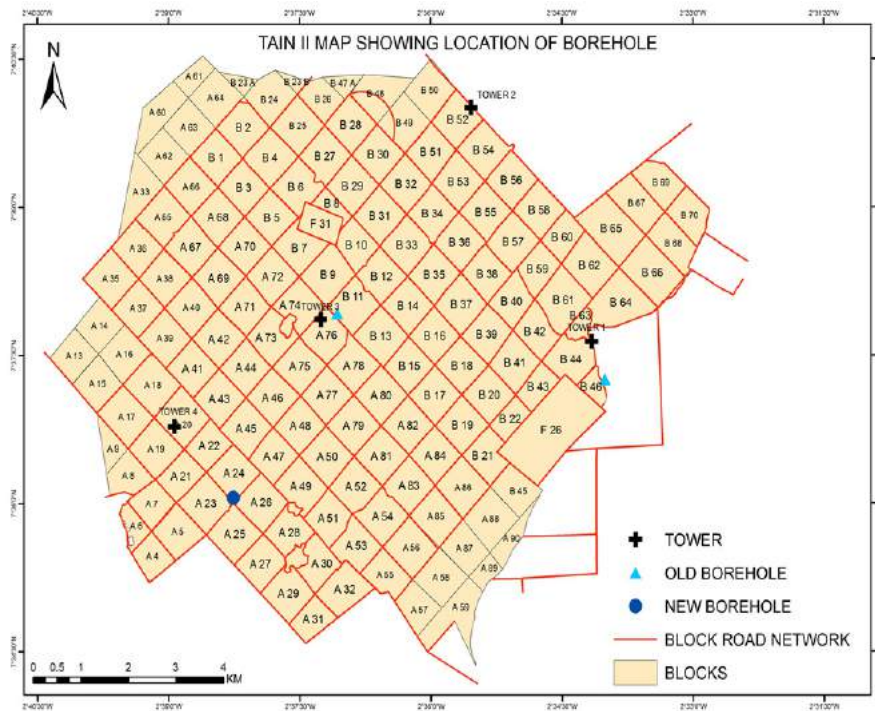


Figure 2: Map showing water sample locations

In the report for the previous quarter water data were provided for the boreholes in the plantation. No water samples from streams have been sent for analysis during the last quarter.

7.2 Explain if values were not provided

The provided data concern the boreholes only.

7.3 Use the table below to determine variations (trends) between the baseline and current values of rivers that traverse the farm:

Sampling of water is yet to be done.

Table 2: Water parameters compared to baseline

No.	Parameter	29-1-2018	26-6-2018	Year 2
1	Dissolved Oxygen	1,9	1,7	
2	pH	6,3	6,5	
3	Temperature	24,5	26,9	
4	Nitrate	1,15	0,2	
5	Ammonia	0,3	0,29	
6	Phosphate	0,01	0,05	
7	Turbidity	0,04	0,62	
8	COD	0	0	
9	BOD	0	0	

Explain variations observed:

First measurement. No variation observed.

8.0 Indicate measures to improve on your performance (environmental Quality and Operation).

The monitoring will be done when there is water in the streams.

9. OTHER ENVIRONMENTAL MONITORING ACTIVITIES

9.1 Plantation monitoring

The objective of Form Ghana is to establish and manage the timber plantation in an ecologically, financially and socially sustainable manner. These management objectives are divided into criteria and for each criterion, a set of measurable indicators are determined as well as the means to verify them (Table 1).

Table 3: Monitoring framework

Management objectives	Criterion	Indicator	Verifier	Frequency of monitoring
1. Establish and manage the timber plantation in an ecologically sustainable manner with a maximum of 90% Teak and at least 10% of mixed local species with conservation of natural, riparian forest	1.1 Extent and condition of forest	1.1.1 Summarize National and international applicable requirements	list	Annual
		1.1.2 Area planted with Teak	Map	Annual
		1.1.3 Area managed as forest plantation / buffer zone	Map	Annual
		1.1.4 Changes in planted area	Map	Annual
	1.2 Biological diversity	1.2.1 Extent of area protected	Map	Annual
		1.2.2 Fauna population and diversity in the forest reserves	Report	Every 5 years
		1.2.3. Flora diversity in the buffer zones	PSP	Every 5 years
		1.2.3. Existence and implementation of procedures to identify / protect endangered, rare and threatened species	Procedures	Annual
	1.3 Forest health	1.3.1 Check of the growth rate of the plantation	PSP	Biennial
		1.3.2 Check of the growth rate of the Buffer zones	PSP	Biennial
		1.3.3 Monitoring of fire frequency	Fire report	Annual
	1.4 Soil protection	1.4.1 Procedures to protect soil productivity and avoid erosion	Procedures	Bi-annual
		1.4.2 Effectiveness of activities undertaken to avoid soil erosion	PSP	Bi-annual
		1.4.3 Procedures to avoid impact from work in the forest	Procedures	Annual
	1.5 Water protection	1.5.1 Procedures to protect forest and vegetation along water courses	Procedures	Annual
		1.5.2 Checking of water quality	Sample analysis	Bi-annual
		1.5.3 Water consumption	Measurements	Quarterly
	1.6 Status ESMP	1.6.1: Report on status of ESMP	report	Annual
	1.7 Waste	1.7.1 Report on the waste	report	Annual

Management objectives	Criterion	Indicator	Verifier	Frequency of monitoring
	Management	management system		
2. Guarantee financial and economic sustainability through the generation of income from the produced round-wood and carbon sequestration	2.1 Forest production	2.1.1 Harvest of round wood	Tables	Annual
		2.1.2 Comparison of yield with yield tables	Tables	Annual
		2.1.3 Calculation of current stored carbon in the plantation	Calculation	When needed
		2.1.4 Calculation of current stored carbon in the buffer zones	Calculation	When needed
	2.2. economic aspects	2.2.1. Cost benefit of plantation	Table	Annual
		2.2.2 Value of wood sales	Sales data	Annual
3. Provide social benefits by offering good economic conditions for employees and the surrounding smallholder community	3.1 Social benefits	3.1.1 Grievance and redress	Table	Quarterly
		3.1.2 Union and worker organisations	Table	Annual
		3.1.3 SEIMAP	report	Quarterly
		3.1.4 Number of people (partially) depending on the plantation for their livelihood (employees, inter croppers, out growers)	Annual report	Annual
		3.1.5 Training and capacity building for employees, inter croppers and out growers	Table	Monthly
		3.1.6 Information of the public	Website, stakeholder meetings	Annual
		3.1.7 Worker health / Accidents on work floor	Statistics	Monthly

9.2 Monitoring methods

List the techniques used and the results of each monitoring exercise.

9.2.1 *National and international applicable requirements*

No requirements available

9.2.2 *Biological diversity*

Present the results form biodiversity monitoring with emphasis on:

- Document any presence related to any IUCN red-list animal (species, numbers, location, date, etc) (OS3);

The shrew (*Crocidura grandiceps*) is listed as Near Threatened on the IUCN Red List of Threatened Species. This species was specifically studied to confirm it's continued presence in the Forest Reserve. The species is confined to a piece of remnant natural

forest situated between blocks A73 and A74. It was found only once and only in this piece of forest.

- Document progress on buffer zone restorations/protection activities (OS3):

Indigenous planting has reached 670 hectares in total

- Document changes in floral diversity in the buffer zones (OS3)

Flora representing 21 Families, 49 Genera, and 57 Species were confirmed in the study area during the survey (Figure 3). *Tectona grandis* (teak) was concentrated in the plantations. *Blighia unijugata* (Akyebere) ranked highest in abundance with relative density of 12.62%. This was followed by *Anogeissus leiocarpus* (Kane) with relative density of 8.57% and then 6.62% for *Lonchocarpus sericeus* (Sante). *Chromolaena odorata*, an invasive herb species was relatively abundant (6.62%). Very rare species included *Uvaria chamae*, *Rauvolfia vomitoria*, *Funtumia elastica*, *Macaranga hurifolia*, *Albizia ferruginea*, *Pterocarpus erinaceus*, *Anthocleista nobilis*, *Triplochiton scleroxylon*, *Mansonia altissima*, *Ficus exasperate*, *Milicia excelsa*, *Morus mesozygia*, *Citropsis articulate*, *Chrysophyllum perpulchrum* and *Salacia africana* with relative densities lower than 0.50%.

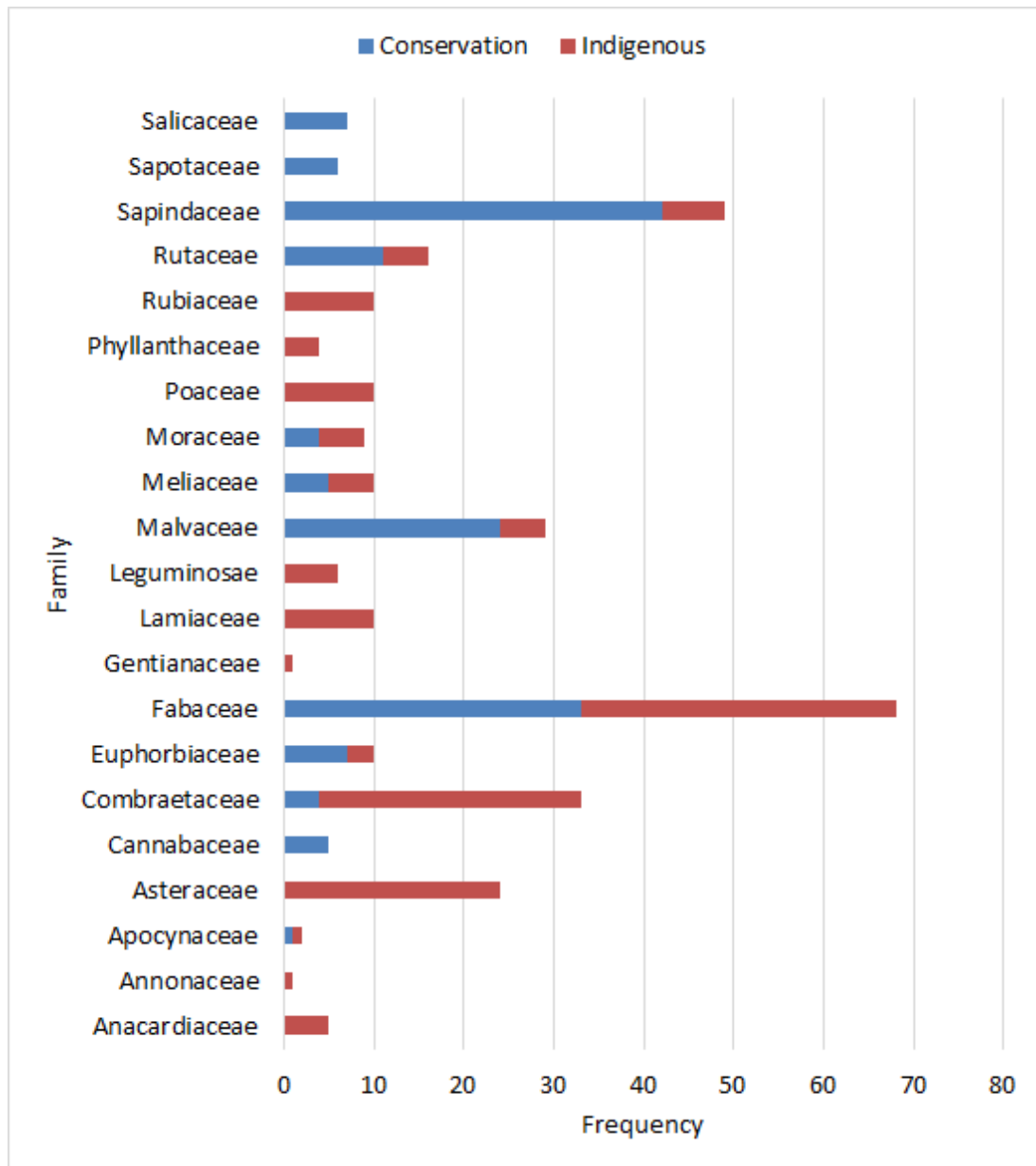


Figure 3: Abundance of flora (Families) recorded in the study area

The conservation area ranked highest with a record of 34 flora species but was lower in terms of number of total individual trees (151). The indigenous area however had a higher total number of trees (166 individuals) constituting 33 flora species (Table 4).

Table 4: Flora abundance recorded in the indigenous and conservation areas

	Indigenous	Conservation
Number of Species	33	34
	166	151

Number of Individu-
als

DBH Class Distribution

There are many younger individuals than mature trees in both populations (i.e. conservation and indigenous areas) and the relation of DBH classes to number of individuals follow an exponential model closely (Figure 4). The conservation area particularly follows this model more closely. In general, there are very few trees bigger than 20 cm DBH with the largest tree (41.6cm) occurring in the conservation area.

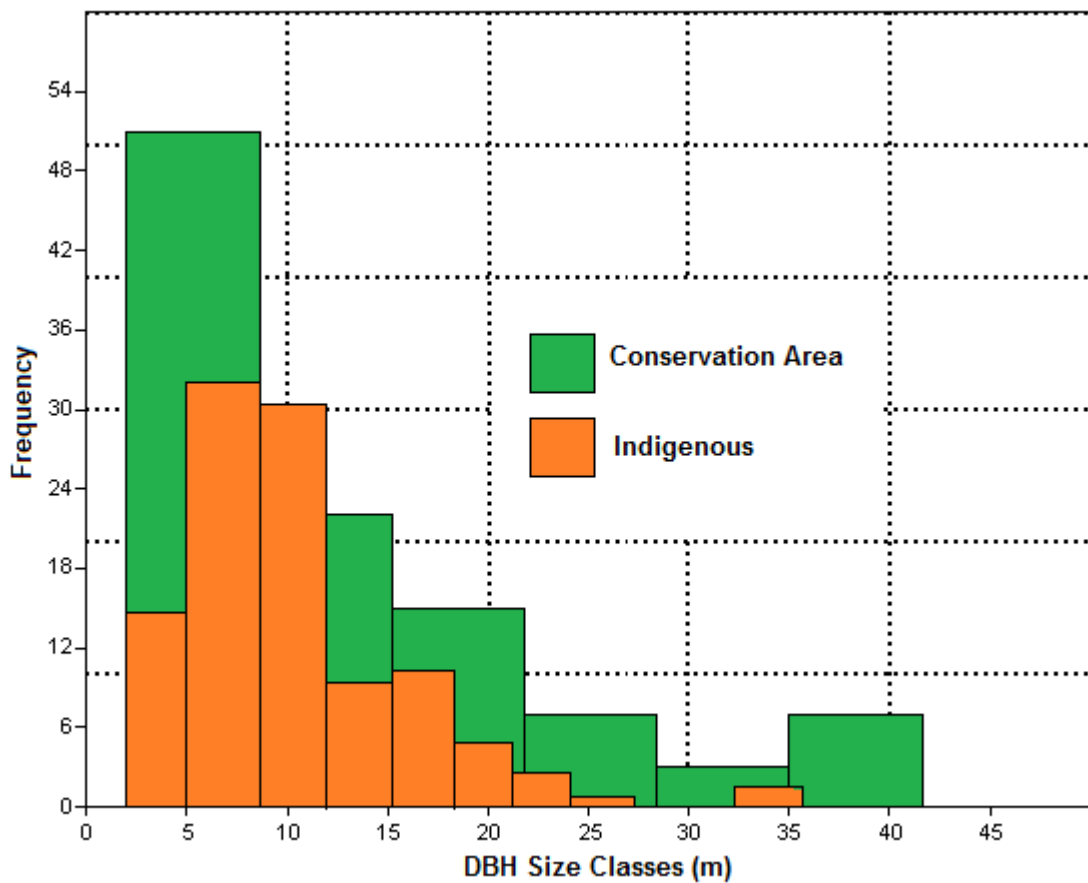


Figure 4: Size (DBH) class distribution of trees recorded in sample plots

Height Class Distribution

The mean height class distributions of the two vegetation types recorded in the various plots are shown in Figure 5.

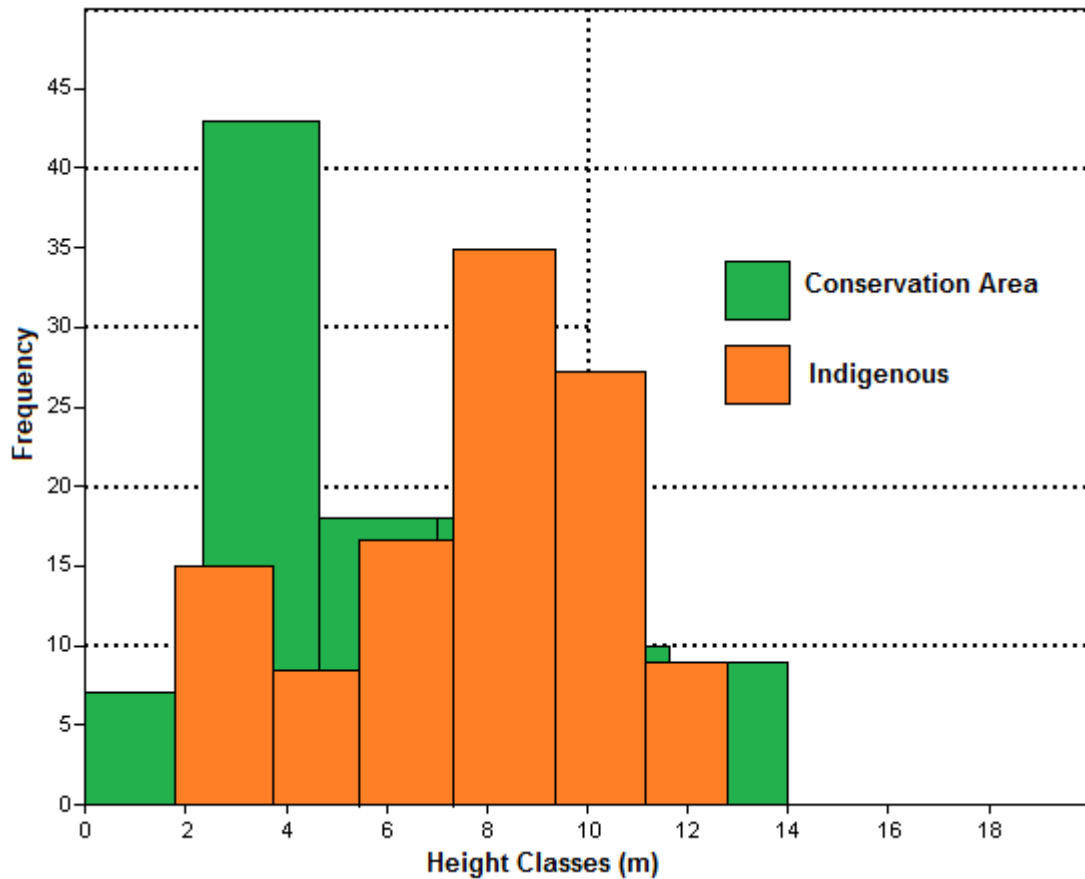


Figure 5: *Vegetation height class distribution recorded in sample plots*

There seems to be low similarity between the height class distributions recorded in the conservation and indigenous areas. Generally, there were taller younger individuals in the conservation area compared to taller older individuals in the indigenous area. Comparatively, the size class in the indigenous area followed the "normal" logarithmic representation (Richards 1998) better. No tree exceeded a height class of (>14.0m). In addition, no individual in the indigenous area was less than 1.8m tall. The height class range of (0.0m - 2.0m) in the conservation area were open areas which represented thickets and herbs.

Four of the recorded flora are species of conservation interest on the IUCN Red List of Threatened Species (2018) namely Rosewood, *Pterocarpus erinaceus* (Endangered; EN), *Albizia ferruginea* (Vulnerable; VU), *Azelia africana* (Vulnerable; VU) and *Pterygota bequaertii* (Vulnerable; VU). (*Pterocarpus erinaceus*) is also protected by Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

- Document changes in mammal and bird diversity (OS3)

Three main general mammal taxonomic groups (rodents, carnivores and ungulates), representing 11 Families, 14 Genera, and 15 Species were confirmed in the project area during the survey. The admitted farm ranked highest with a record of 10 mammal species, followed by conservation area (8), teak (8) and indigenous area (7) (Table 5).

Table 5: Mammal abundance recorded in the various management zones

	Indigenous	Teak	Conservation	Admitted Farm
Number of Species	7	8	8	10
Number of Individuals	25	20	28	62

A total of 135 terrestrial mammal signs were recorded: 62 signs in the admitted farm area, 28 signs in the conservation, 25 signs in indigenous areas, and 20 signs in the teak plantation.

Rodents constituted the largest group (7 species) while carnivores were restricted to just three species. Bushbuck (*Tragelaphus scriptus*), Striped Ground Squirrel (*Euxerus erythropus*) and Cusimanse mongoose (*Crossarchus obscurus*) were the most widespread species, occurring in all four management zones (Figure 6). Apart from the Marsh Cane Rat (*Thryonomys swinderianus*) and Fire-footed Rope Squirrel (*Funisciurus pyrropus*) which were recorded in three management zones, all other species were not very common but restricted species and were recorded in not more than two management zones. Fifty percent (50%) of the species were recorded in the teak plantation.

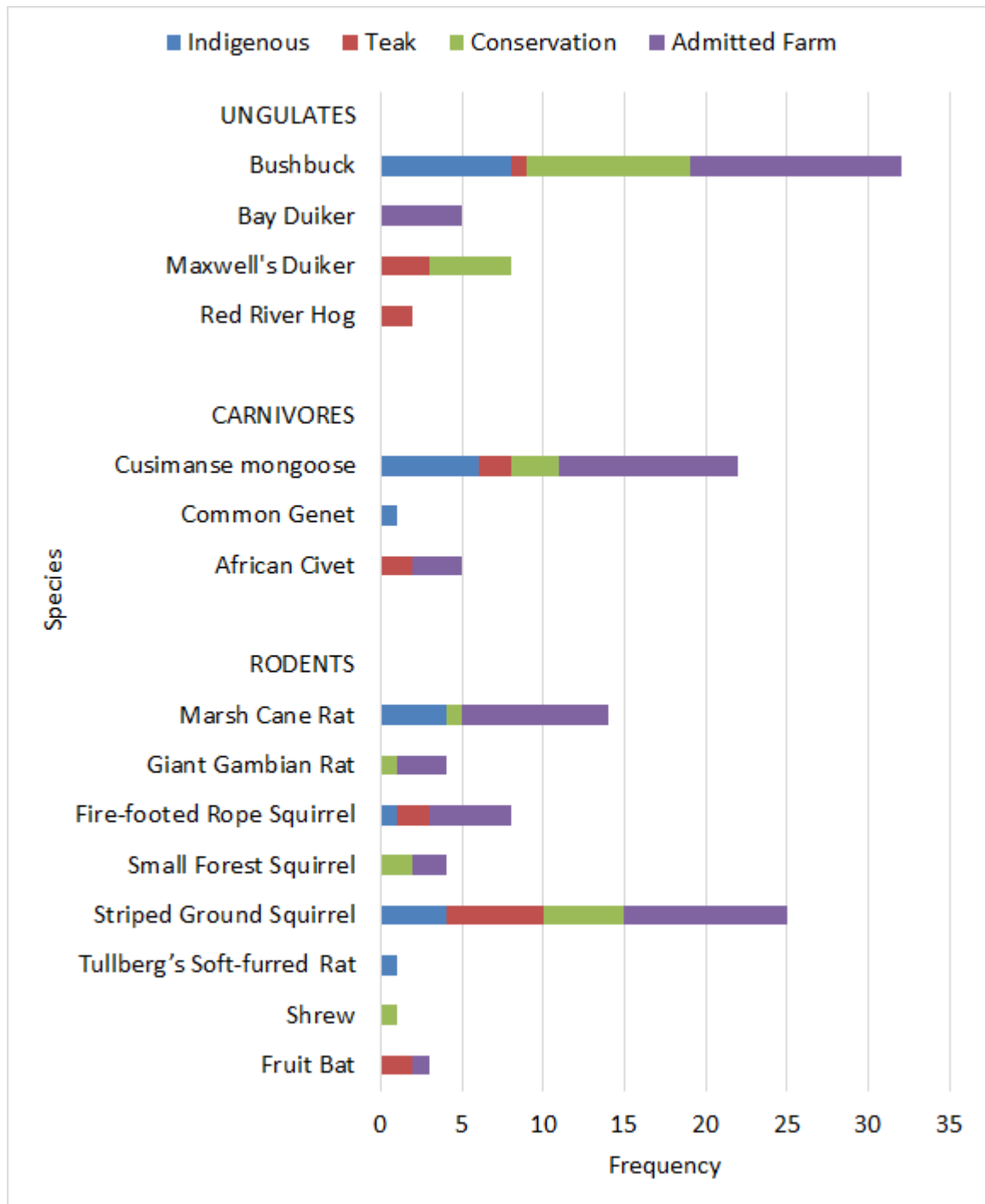


Figure 6: Abundance of mammal signs recorded in the study area

The shrew (*Crocidura grandiceps*) is listed as Near Threatened on the IUCN Red List of Threatened Species (2018) whiles the civet is protected by Appendix III of the Convention on International Trade in Endangered **Species** of Wild Fauna and Flora.

Sixty-two (62) Species, belonging to 47 Genera and 27 Families were recorded on transects. The conservation area ranked highest with a record of 49 bird species, followed by the admitted farm (40 species) and then teak plantation (33 species) and indigenous area (31 species) (Table 6).

Table 6: Bird abundance recorded in the various management zones

	Indigenous	Teak	Conservation	Admitted Farm
Number of Species	31	33	49	40
Number of Individuals	85	77	123	101

A total of 386 bird signs were recorded: 123 signs in the conservation area, 101 signs in the admitted farm, 85 signs in the indigenous area and then 77 signs in the teak plantation.

More than 60% of the species recorded belong to the Families Columbidae, Bucerotidae, Pycnonotidae, Cisticolidae and Ploceidae (Figure 7). The Red-eyed Dove, *Streptopelia semitorquata* (relative abundance of 10.3%), Tambourine Dove, *Turtur tympanistria*, (8.2), African Grey Hornbill, *Tockus nasutus* (6.4%) and the Common Bulbul, *Pycnonotus barbatus* (6.2%) were some of the most recorded and widespread bird species.

Apart from members of the Family Bucerotidae (Hornbills) which are typical forest species, most of the birds recorded were either forest fringe species or birds of degraded forests.

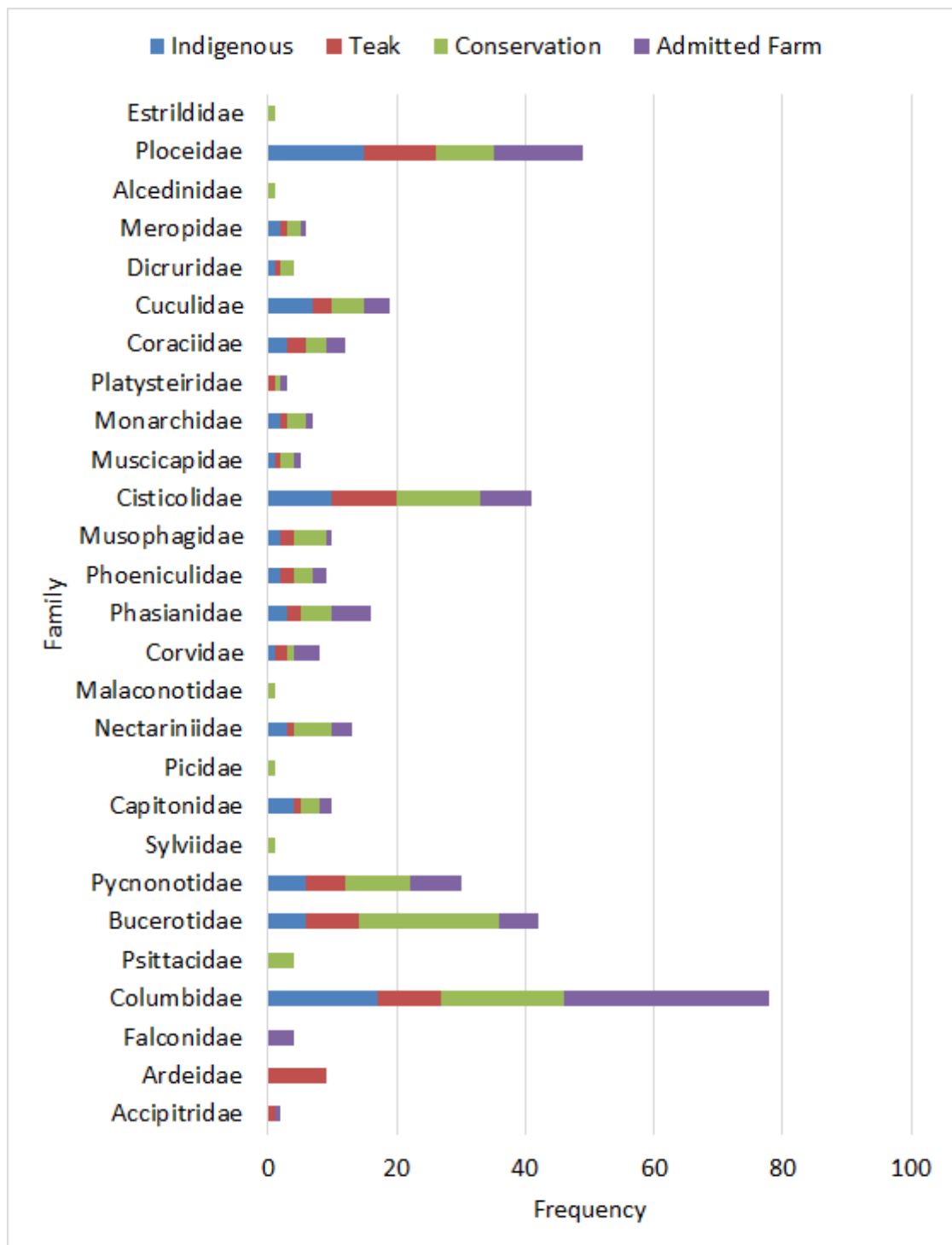


Figure 7: Abundance of birds recorded in the study area

None of the recorded birds are of significant conservation importance on the IUCN List of Threatened Species or any CITES Appendix. However, members of the Families Ardeidae (Herons and Egrets) and Accipitridae (birds of prey) are of special conservation importance in Ghana and are listed in Schedule 1 of the Ghana Wildlife Conservation Regulations (1995)

9.2.3 Forest health

Document any incident on pest occurrence and pollution (OS4)

Pests are verified during PSP monitoring. No pests have been observed.

9.2.4 Protection against fire

Report on fire management and incident;

Table 7: Fire incidence

	Akumadan		Berekum	
	Inside	Outside	Inside	Outside
January	1	131	0	27
February	1	144	1	195
March	0	108	0	180
April	0	21	0	109
May	0	4	0	283
June	0	1	47	87
July	0	0	15	79
August	0	0	17	233
September	0	5	9	174
October	0	8	0	57
November	0	16	2	168
December	2	406	0	111
Total	4	844	91	1703

In Berekum, total amount of ha area burnt was 12.09 ha in the plantation, in Block B 61. The burnt area has resprouted vigorously. It is expected this will lead to limited long term loss as burned trees resprout and then grow faster than a just planted tree. The loss of a 3 year old tree burnt is for instance only 1 year, as it can grow to the size of a two year old seedling in one season.

9.2.5 Soil protection

Report on observed soil erosion and possible other soil problems

No soil erosion was observed during PSP monitoring in the plantation.

9.2.6 Status ESMP

Implementation status of the ESMP, specifically highlighting if there are non-compliance items.(OS1)

In case of deviation or non-compliance with applicable requirements, specify the actions taken or to be taken to ensure compliance (for all applicable OSs)

The ESMP is relevant at two levels. The ESMP as submitted to AfDB is fully operational. There was however also a legal requirement to submit an ESMP to the EPA. The EPA did not accept the same document as submitted to the bank as sufficient for their ESMP requirement. New documents were developed for the Akumadan and the Tain II plantation, submitted and accepted. The environmental permits issued based on these documents are valid until the 14th of August 2021.

9.2.7 Rainfall

Rainfall in 2018 seems to end up being higher than in other years. This is good for both tree growth and for the fire risk.

Table 8: Rain fall data

Main Gate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	40	0	119	162	62	150	40	33	54	67	17	0	744
2015	0	71	22	144	116	91	66	49	79	240	44	0	922
2016	0	0	53	48	90	120	24	34	96	171	15	42	693
2017	0	8.5	61	80	116	254	81	76	148	130	105	0	1059.8
2018	0	33	92	62	125	162	109	76	117	129	17	0	922
Tower 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2013	0	45	79	86	148	44	93	10	228	83	114	0	930
2014	40	0	119	162	62	179	79	110	120	157	5	0	1033
2015	0	70	64	109	115	56	17	96	108	159	23	0	817
2016	0	10	17	55	115	57	52	22	197	138	16	35	714
2017	0	4	49	126	121	278	160	82	145	166	21	0	1152.6
2018	0	30	128	92	125	163	55	113	122	146	14	0	988
Tower 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2015	0	600	75	114	172	37	72	114	131	204	16	0	995
2016	0	0	61	125	198	115	75	23	199	56	37	30	919
2017	0	1	77	92	151	300	130	127	163	128	16	0	1185.4
2018	0	45	95	75	101	119	44	85	94	168	12	0	838
Tower 3	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2015	0	70	41	117	164	65	47	64	84	155	16	0	823
2016	0	0	60	81	109	187	37	5	164	98	69	57	867
2017	0	6	65	74	80	321	91	89	153	129	130	0	1021
2018	0	55	81	97	107	148	47	88,5	84,5	119	14	0	841
Asapru ST1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2018	0	163	76	53	152	198	44	51	40	9	0	0	787
B31 ST2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2018	0	65	50	41	60	152	23	29	20	111	9	0	561

9.2.8 Forest production

No timber was harvested in Tain II

9.3 Economic aspects

No timber was harvested Tain II

9.4 Social benefits

9.4.1 Grievance and redress

Reporting on any complaints that have been received by the company through the internal workers grievance system (OS5)

Review of grievance and redress mechanism (number of cases; number resolved; type of cases; method of resolution and level) (OS2)

Table 9: Treatment of grievance cases

Case number	Date filed	Relation to FG (e.g. Worker, stakeholder, etc.)	Topic	Level	Reaction FG -> complainant	Date reaction	outcome / proposed solution	Status (ongoing / resolved)
BER 2018 - 001	10-jan-18	Worker	Change of work and Communication between Supervisors and workers	2	Was sent to Operations Manager for redress	10-feb-18	Their work was changed and Supervisors were advised to communicate well with the workers	Resolved
BER 2018 - 002	26-jan-18	Worker	Condition of Service	2	To be sent for response (January Union Monthly meeting)			
BER 2018 - 003	16-3-2018	Workers	Assault	2	The accused and complainants were both heard in the presence of HR Officer and Union Secretary.	16-3-2018	Appropriate sanction per the Company internal rules and regulations was given	Resolved
BER 2018 - 004	19-3-2018		Students have left schooling to work at FG	2	The supervisors of the students were made aware of the complaint.	19-3-2018	The students were advised to go back to school.	Resolved
BER 2018 - 005	26-jan-18	Worker	Condition of Service	2	To be sent for response (January Union Monthly meeting)	27-apr-18	From the point where workers are picked up or takes the company car to work, during work and way back from work is company's responsibility.	Resolved
BER 2018 - 005	1-jun-18	Worker	A worker asked if workers who are illiterate are not important in the company as they have been with the company for many years yet have not been promoted.	2	MD responded	1-jun-18	For the company to grow, management has to put the right people in some of the positions even if the person has been with the company for only a year	Resolved

BER 2018 - 006	1-jun-18	Worker	A worker asked management to give existing employees more opportunities when a position comes up than recruiting from outside because those who come from outside do not work for long and later existing employees are picked to replace.	2	MD responded	1-jun-18	As far as possible existing employees will be given opportunities to the workers but the workers must also know that outsiders will also be given some opportunities	Resolved
BER 2018 - 007	1-jun-18	Worker	Workers pleaded that management should help them pay the medical bills of their dependents	2	MD responded	1-jun-18	He asked the union to bring these things in the CBA	Ongoing
BER 2018 - 008	1-jun-18	Worker	Spraying team members pleaded that apart from giving them PPEs, they should get some medical checkups once or twice a year.	2	MD responded	1-jun-18	The spraying supervisor was asked to prepare a proposal and send it to management	Ongoing
BER 2018 - 009	27-jul-18	Permanent Worker	Workers pleaded with management to talk to drivers that whenever it is raining heavily they try and find some safe place and park till the rains stop	2	To be sent for response (July Union Monthly meeting)			Ongoing
BER 2018 - 010	27-jul-18	Permanent Worker	A worker pleaded that management should make a car available at the labour lines in the evening to assist the workers there for of any emergency situation.	2	To be sent for response (July Union Monthly meeting)			Ongoing
BER 2018 - 011	2-10-2018	Workers	Road workers plead with management to provide them with PPEs like safety boot, goggles, gloves and protective hat. They also plead with management to increase their salaries	2	Complaint was sent to Forest Manager			

BER 2018 - 012	2-10-2018	Workers	Tractor Operators plead with management to increase their salaries	2	Complaint was sent to Forest Manager			
BER 2018-013	22-10-2018	Workers	a) Security Guards plead that the car takes off at the normal time of 4:00pm on Sundays and not the new time 3:30pm b) They do not get any mark for extra hours worked for example when they come for day duty and are called to work at night c) They do not know why they perform the same duties as the SSD Team d) they plead that the truck takes them home on Sunday evenings as they sometimes stay in and perform day duties when they come from Tower thus they still have their luggage with them e) they plead with management to increase their salary	2	Plantation Manager, HR Officer, Chief Security Officer and 2 Foresters sat and discussed the issues			

9.4.2 Unions

Provide summary table of workers organizations, description of member category, number of members (OS5)

Union Organisation – **Timber and Woodworkers Union of Ghana Trade Union Congress (TWU/TUC)**

Table 10: Union members

No. of Males	No. of Females	Total No. of workers
222	90	312

9.5 Economic Impact Mitigation Action Plan: Update fourth quarter 2018

During the fourth quarter there was still no final agreement on the updated SEIMAP document which was shared with the bank and discussed. Some final modifications were made and the updated version now serves as the basis for reporting (version June 2018). It was decided not to repeat the contents of the report in this section but to report on progress only.

Since the beginning of this year, several activities have been undertaken for the update of the Socio-Economic Impact Mitigation Plan (SEIMAP also known as RAP) and for the implementation of the plan.

Two main activities have been undertaken. They can be split as site preparation activities and planning the move with the settlers from Akumadan.

The people from Akumadan will be moving in the middle of October. The halfway house built for their temporary lodging is currently 97% complete. This means construction is left with painting of the building.

The following steps will be undertaken:

- The seven PAPs (all male) will all move together to prepare their farm lands and houses.
- The males will then go for their families and all their belongings they wish to move.

After the move the PAP's will shortly go back to Akumadan to harvest their left-over maize farms (November- January). After this they will be in residence in Kotaa permanently.

9.5.1 Organizational responsibility

Form Ghana implements the socio-economic impact mitigation action plan, financed with company resources. Form Ghana has been operational in the area since 2007. Their commitment is secured by their interest in the success of the resettlement process.

The company is well embedded in the area from a social perspective, with regular stakeholder meetings, social monitoring and a large group of local employees. This provides a good basis for negotiations with local governments and host families. It is important that Form Ghana is actively involved in this process because all the parties involved in resettlement will be working together long after implementation of the socio-economic impact mitigation action plan. Form Ghana will ensure a continuous, open dialogue with the host families, PAP, traditional council and local government. This will be part of the monitoring of resettlement after implementation.

Form Ghana has the logistics present to facilitate the resettlement of the project affected people. All infrastructure is in place for the transportation of PAP to host families.

9.5.2 Estimated cost

Costs of implementation of the Socio-Economic Impact Mitigation Action Plan are estimated and presented in table 9.1 below. These budgeted costs have been included in the Form Ghana budget for 2018

Table 11: Budget for costs of SEIMAP implementation.

Cost item	Amount	Unit	Unit price (GHS)	Total (GHS)	Status
Ablution facility	1		25,000	25,000	Done
Social survey	1		50,000	50,000	Done
Solar borehole + stand + tank	1		45,000	45,000	Done
Solar boreholes plantation	3		36,000	108,000	Done
Relocation	36	Round-trip	800	28,800	Planned oct 2018
Land				25,000	Done
Land facilitation				25,000	Done
Fees elders and community				25,000	Done
Building a half way house	1			59,000	97% complete
Monitoring and evaluation				15,000	Planned dec 2018
Contingencies	5%			16,590	
Total				422,390	

9.5.3 Implementation schedule

The implementation of the SEIMAP will be done according to the plan presented in table 9.2. The farmers can start or continue farming as soon as they have signed their intercropping agreements.

Boreholes will be constructed in Tain II Forest Reserve at locations that are accessible from the farms of the intercropping farmers. Construction will start as soon as possible.

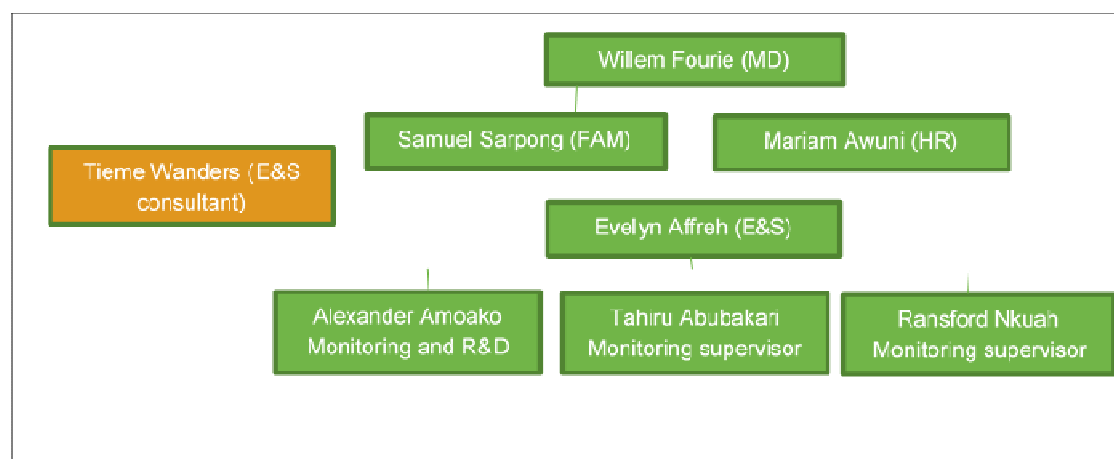
The settlers will be transported to the host community to start construction of their houses, at the time that they have indicated. Construction is estimated by the settlers to take approximately one month. After construction has completed, the settler households and belongings will gradually be moved to the host community, after the final harvest of their crops at their current place of residence.

Table 12: Updated planning for SEIMAP implementation.

Activity	Time in NL (days)	Time Ghana (days)	Date activity finalized
Renew contact with PAP and initiate SEIMAP implementation	1	4	31-8-2017
Detailed design and engineering	2	10	15-09-2017
Develop final costing	1	2	19-9-2017
Contractor mobilization		10	3-12-2017
Commence resettlement site construction		1	10-12-2017
Resettlement site construction complete		60	31-3-2018
Visit of people from Akumadan to inspect the new site and meet with community leaders		1	31-3-2018
Design MOU concerning new facilities (boreholes and ablution facilities)		1	31-05-2018
Official welcome of settlers in Kotaa		2	26-10-2018
Elaboration of a SEIMAP end report	2	2	31-3-2019
Assessment of success of SEIMAP implementation		3	12-20189
Assessment of success of SEIMAP implementation		3	06-2020
Assessment of success of SEIMAP implementation		3	12-2020

9.5.4 Implementation staff

The following staff are working on the implementation of the SEIMAP. Per person a short description of capacities is given and eventual training needs are identified. The structure of the organisation working on the implementation of the SEIMAP is presented in the diagram below:



A team of people are working on the implementation of the SEIMAP. The MD (Mr. W. Fourie) is end responsible for the whole process. Mr. Fourie is a very experienced director. Answering directly to him are the finance and administrative manager Mr. Samuel Sarpong, who is amply trained and experiences in managing the finances of Form Ghana. Also Answering directly to Mr. W. Fourie is Ms. M. Awuni who is the HR manager. Ms. Awuni is trained in Forestry and Natural Resources Management (also in the Netherlands) with a special focus on the social component. The work of Ms. E. Affreh is coordinated by Mr. T Wanders a consultant from Form International. Ms. Affreh is Master of Philosophy in Social Forestry and Environmental Governance.

The monitoring supervisors Mr. Amoako, Mr. Abubakari and Mr. Nkuah assist MS. Affreh with the social monitoring work and with the practical aspects of the resettlement of the people from Akumadan to Kotaa.

The team here described has sufficient capabilities to implement the SEIMAP. Based on outcomes of monitoring and evaluations it will be checked if other knowledge and / or capacities are needed to further implement the work.

9.5.5 Entitlements matrix

This paragraph contains a matrix of project affected people that are entitled to receive facilitation of livelihood support and assistance due to displacement (table 5.1).

Table 13: Entitlement matrix for Project Affected People.

Category of PAP	Category of loss	Package	Previous number of people concerned	Current number of people concerned
Farmer households	Crops (Cash & Food)	Intercropping agreement Legal status Job opportunity Water facility near farm	420 (5 Akumadan and 415 Tain)	550 farmers how have an intercropping agreement in Tain. 0 in Akumadan
Settler households	Crops (Cash & Food)	Intercropping agreement Legal status Job opportunity Water facility near farm	27 in Akumadan (3 of which were deemed vulnerable)	7 households are concerned. none are deemed vulnerable.
	Houses (Primary)	Legal housing site in host community		

	Residences)	Connection to road network Access to host community facilities		
	Cost of moving	Transportation assistance		
Settler households that have moved and declined the any assistance by Form Ghana	No loss	No package	All 27 households had agreed to move to Kotaa.	4 households have decided to stay in Akumadan. They had stopped farming in the FG lands and are now engaged in trade or farming other land. They have voluntarily declined the assistance package and waived their entitlement.
Cattle herder households	Pasture land	No facilitation; sufficient land for grazing available.	12 herder and households were identified in the first final RAP	20 herders and their households have been identified during last meeting (February 2018)
	Access to water points for cattle	No facilitation; water points can still be accessed after company establishment.		
Vulnerable households	Crops (Cash & Food)	Intercropping agreement Legal status Job opportunity Water facility near farm	3 households were deemed vulnerable in the original RAP	No more vulnerable households will be part of the move.
	Houses (Primary Residences)	Legal housing site in host community Connection to road network Access to host community facilities Assistance with construction of housing in host community		
	Cost of moving	Transportation assistance		
Farmers on resettlement plot	Crops (Cash & Food) Land	Payment for land and for crops	0	3 farmers and the queen mother

9.5.6 Stakeholder consultation schedule

The activities planned and undertaken to involve and consult the stakeholders are listed in table 6.1 below.

Table 14: Stakeholder consultation schedule for development of the SEIMAP.

Date	Stakeholder	Activity
24-1-2015	Kotaa Chief	Initial meeting on resettlement
9-2-2015	Forestry Commission	Telephonic meeting on SEIMAP
25-2-2015	Forestry Commission	Meeting in Accra on SEIMAP strategy
3-3-2015	Akumadan Settlers and farmers	Preliminary meeting
11-3 until 2-4-2015	PAP	Socio-economic survey
14-3-2015	Berekum farmers	Preliminary meeting
16-3-2015	Kotaa farmers	Preliminary meeting
19-3-2015	Forestry Commission	Telephonic meeting on No-objection letter
27-3-2015	Namasua farmers	Preliminary meeting, with representative from Forestry Commission
31-3-2015	Arkokrom farmers	Preliminary meeting
24-4-2015	Kotaa Chief	Meeting to discuss resettlement
7-5-2015	Akumadan settlers and Farmers	Information meeting on resettlement program
8-5-2015	Akumadan settlers and Farmers	Information meeting on resettlement program
19-5-2015	Tain farmers	Information meeting farmer livelihood support program
14-5-2015	Akumadan settler vulnerable households	Meeting with individual female headed households to discuss options for implementation of the livelihood support program.
15-5-2015	Akumadan settlers and Kotaa chief	Tour to Kotaa community for first meeting Kotaa traditional council and settlers.
28-5-2015	Forestry Commission	Meeting on draft SEIMAP
24-8-2017	Meeting with Akumadan settlers	Updating information on families willing to move to Kotaa
29-8-2017	Meeting with chief and elders of Kotaa	Updating information on the willingness of the Kotaa community to welcome settlers from Akumadan
8-9-2017	Meeting of IRM team with representative of PAP moving to Kotaa	
15-9-2017	PAP Akumadan	Interview with PAP in Akumadan to verify if they will move with whole families
22-11-2017	Occupants of resettlement land in Kotaa	Inventory of the land and crops

Date	Stakeholder	Activity
08-12-2017	PAP Akumadan	Discussions with settlers opting not to move to Kotaa in order to find out why not
30-01-2018	Occupants of resettlement land in Kotaa	Discussion and additional payments for land and crops
01-02-2018	PAP Akumandan	Meeting to plan the move to Kotaa
27- 03-2018	PAP Akumandan	Meeting to plan the move to Kotaa
18-05-2018	Community of Kotaa	Signing of MOU concerning borehole and ablutions facilities
23-7-2018	Akumadan	Meeting with PAPs on RAP progress
26-10-2018	Kotaa and settlers from Akumadan	Official welcome of settlers in Akumadan

9.5.7 Advancements last quarter

- Construction of the house the settlers will use during their own construction of the house has been completed. The settlers have come to Kotaa to take part in a ceremony during which they were welcomed to the Kotaa community by the Chief and Elders (see annex 1).

Table 15: Overview of developments in Akumadan

Akumadan	Total land (Ha)	Total Families	Total Individuals	Resettled/Restored To-Date	Pending	Comments
Farmer Household (loss of land)	-	-	-	-	-	-
Settler households (loss of structures)	unknown	7	-	-	7	-
Cattle herder household (loss of grazing land)	unknown	-	-	-	-	-
Vulnerable households (loss of structures)	-	-	-	-	-	-
Total	-	7	-	-	7	-

Table 16: Overview of developments in Berekum

Berekum	Total land (Ha)	Total Families	Total Individuals	Resettled/Restored To-Date	Pending	Comments
Farmer Household (loss of land)	-	-	-	-	-	-
Settler households (loss of	-	-	-	-	-	-

structures)						
Cattle herder household (loss of grazing land)	-	-	-	-	-	-
Farmers on resettlement area (Kotaa)	1 hectare	3	3	3	-	-
Vulnerable households (loss of structures)		-	-	-	-	-
Total	-	-	-	-	-	-

9.5.9.4 Update Intercropping in Tain

The intercropping possibility is part of what Form Ghana has to offer to people. This concerns local farmers as well as the settlers from Akumadan. In Akumadan there are no intercroppers.

According to Form Ghana policy, people farming the land need to be in the possession of an intercropping agreement issued by Form Ghana. New farmers can be awarded a two year intercropping agreement, whereas farmers known to the company can be awarded a 5-year intercropping agreement. When the research for the SEIMAP/ RAP was conducted there were 84 intercropping agreements in Tain.

Currently **470** two year intercropping agreements are in function and **80** five year intercropping agreements.

Table 17: Number of intercroppers per community in Tain

Community	5years	2years	New registration	Total
Domeabra	0	6		6
Ampenkrom	0	18		18
Arkokrom	0	145	32	177
Kotaa	0	26		26
Yawtwenekrom	7	33		40
Asantekrom	0	46		46
Kwadwoarko	0	45		45
Oforikrom	6	1		7
Tainso	23	18		41
Jejemireja	9	0		9
Abuokrom	0	19		19
Namasua	11	0		11
Meremano	24	88		112
Berekum	0	25		25
Total	80	470	32	582

The inter-croppers come from various communities. The land area farmed has not been assessed exactly yet.

9.6 Stakeholder engagement plan implementation Akumadan

Stakeholder engagement is a continuous process for Form Ghana. The following types of stakeholder engagement were planned and executed.

Table 18: Stakeholder engagement implementation

SEP activity planned	Activity realised	Plan for rest of the year
6.1 In depth sharing: provision of reports and meetings with individuals	FSC audit (01-2018) Report to FC (01-2018) Report to EPA (01-2018) Report to AfDB (01-2018) Report to FIP (01-2018) Report to AfDB (04-2018) Report to AfDB (07-2018)	Quarterly reports to AfDB

	Report to FIP (07-2018) Report to AfDB (10-2018) Report to AfDb (01-2019)	
6.2 Active engagement: community representatives	Several meetings were held (see chapter 6 for details)	Meetings will continue
6.3 Active engagement: central stakeholder meetings	One meeting in 2018, two meetings were held in 2017	Hold stakeholder meetings
6.3 Active engagement: inter-cropper meetings	Meetings were held (see chapter 6 for details)	Meetings planned in preparation of the fire season
6.4 Active engagement: school visits	No school visits were done during this reporting period	Visit the largest schools surrounding the plantation
6.5 Information sharing: company website and newsletters	Company website is up to date / newsletter was last sent December 2017	Keep website updated
6.6 Grievance and redress mechanism	Grievance and redress system is functional and reported upon in this report	Keep system functioning and report quarterly
6.7 Capacity building company	No capacity building activity was done during 2018	We are currently inventorying the needs for training for the team involved in the SEP implementation.

The stakeholder engagement activities were discussed in detail at the end of chapter 6 of this report, with a listing and a summary of all encounters (both related to this and affiliated projects).

10. ANNEX 1: MINUTES OF STAKEHOLDER MEETING



Agenda:

- 1) Introduction of the Dignitaries at the Kotaa Palace
- 2) Brief description of Akumadan plantation and Form Ghana's resettlement engagement
- 3) Rituals performed in ushering the farmer-settlers into Kotaa community

Programme duration: 10am -12:00pm

Venue: Kotaa Palace

Attendants and pictured are attached as annex.

On Friday 26th October 2018 , Form Ghana ltd. , a private company successfully resettled seven (7) farmers settlers from Form Ghana's plantation in Asubima and Afrensu Brohuma Forest Reserves in Akumadan community to Kotaa community which is close to Form Ghana's Tain II forest reserve in Berekum.

Form Ghana has planted in Asubima and Afrensu Brohuma Forest Reserves an area of about 3,500 hectares consisting of 90% of teak and 10% of indigenous trees. Since its start-up in 2007 Form Ghana has supported intercropping activities for rural farmers living close to the reserve.

The plantation at its peak of growth cannot support intercropping activities anymore, farmers settlers of thirteen (13) households were identified residing and farming within the plantation through social survey. Form Ghana in continuous consultation with the 13 households offered an opportunity to resettle them into Kotaa, a host community close to Form Ghana's Tain II forest reserve in Berekum. Form Ghana provided the farmer settlers with temporal housing, constructed solar borehole and kvip facilities, 0.2ha of land to each farmer settler, land for intercropping and employment opportunities. The farmers' settlers concerns and ideas were all used in the resettlement activity. Out of the 13 households, 7 households have signed on officially for the resettlement activity, while the remaining six (6) households officially signed a document stating that they are no longer interested in moving to Berekum because of their own personal circumstances.

The seven (7) households were officially received into the community, community rituals were performed for them to be part of the Kotaa community. At the official gather-

ing, the following people were present; Chiefs, Elders, Community members, Farmers Settlers (project affected farmer) and Form Ghana team. Messages were exchanged in receiving the Farmers settlers to Kotaa community.

-Message from committee member (kwadwo Mensah): Form Ghana has been here for 5 years now, we all live here in peace. We rejoice as you have become part of Kotaa citizen, let us all endure each other and live in peace. We have some Northern region natives among us, we know you will be welcomed by them as well.

-Message from Queen mother (Nana Yaa Oforiwaa): Kotaa community is happy to receive new community members, who will increase our numbers. I will ensure that as a community we continue to live in harmony. If our new members (farmer settlers) encounter any problem, they should notify us.

-Message from Kotaa Chief (Nana Kwaku Baah Brentu): we welcome our new members once again to Kotaa community. Kotaa community is happy to receive you as ours. We will ensure that you all are educated on rules, traditions, and taboos so you can live well here. Our new members should not hesitate in coming to us whenever they are in need. In every community we have good and bad ones as well. Rules and traditions will be applied to all, in doing so we are ensuring now you are part of us, and all will be given same treatment. This gathering and ritual ceremony is to officially receive you as part of Kotaa community.

-Message from farmer settler's rep (Abombangra Achamaa): On behalf of my brothers here we are very grateful for accepting us to be part of Kotaa community. We also extend our appreciation to Form Ghana for making all adequate preparation in resettling us here.

-Message from Evelyn Affreh (Environmental and Social Officer): The elders' support and preparations for this function were overwhelming, their readiness to receive the farmers from Akumadan is much appreciated by Form Ghana. Form Ghana will continuously follow up assist in ensuring the settlers will follow and abide to all rules, and customs of Kotaa community.

In conclusion, ceremonial rituals were performed for farmer settlers, and they were happy to become part of Kotaa community.

Annex 1: List of Attendants

RAP: OFFICIAL COMMUNITY GATHERING FOR FARMERS SETTLERS TO KOTAA COMMUNITY

DATE: 26TH OCTOBER, 2018

VENUE: KOTAA - BEREKUM

NAME	POSITION/RANK	TELEPHONE	SIGNATURE
Nana Kwaku Baah Bortey	Chief Kotaa	0547838667	
Nana Oforiwa Amanfo	Queenmother Kotaa	0547838667	
Hon. Oteyere Frederick	Assemblyman Kotaa	0203895533	
Nana Kwadwo Yeboah	Aposuapani Kotaa	0207106432	
Nana Kofi Ahaagye	Family member	0203444885	
Nana Yaw Asare	Family member	0205538477	
Nana Kwadwo Johnson	Family member	0202483648	
Nana Yaw Kyeremeh	Youth Leader	0553181799	
Nana Adum Atta	Gyaasehene	0545491176	
Kwadwo Dostey (Nana)	linguist	0503870954	
Opong David	Committee chairman	0248792009	
Kwadwo Mensah	Committee member (later)	0240600241	
Emmanuel Baah	Committee member	0549385489	
Mavis Kumi	Chief's wife	0246399644	

RAP: OFFICIAL COMMUNITY GATHERING FOR FARMERS SETTLERS TO KOTAA COMMUNITY

DATE: 26TH OCTOBER, 2018

VENUE: KOTAA – BEREKUM

NAME	POSITION/RANK	TELEPHONE	SIGNATURE
Francis Bilson-Ogbe	Plantation Manager	0245 905 605	<i>[Signature]</i>
Evelyn Afreh	Ex S officer	0542 181950	<i>[Signature]</i>
Kwabeng Apenda	Farmer settler	0542180021	<i>[Signature]</i>
Stephen Donaana	Farmer settler	0503230810	<i>[Signature]</i>
Ayandor Akangore	Farmer settler	0556465335	<i>[Signature]</i>
Akabono Nyaba	Farmer settler	0541587753	<i>[Signature]</i>
Aduko Achembana	Farmer settler	0245645647	<i>[Signature]</i>
Abumbangra Achamaa	Farmer settler	0542545459	<i>[Signature]</i>
Kandegabano Abee	Farmer settler	0559700562	<i>[Signature]</i>

Annex 2: Pictures



Figure 1: Overview of the farmers settlers from the left is Adongo Achembona ,Ayandor Akangore, Kandegabono Abee, Stephen Donaana, and Kwabena Apandea on the far right.



Figure 2: Overview of farmer’s settlers listening to messages from the Kotaa community members, Manager Ogoe (Form Ghana) sitting far right side , followed by Abombangra Achamaa, and Ababono Nyaaba



Figure 3: Group picture from the far right is Mg Ogoe (Form Ghana) , Elders of kotaa , Nana Kwadwo Yeboah, Queen mother (Nana Yaa Oforiwaa) and her grandchild, Nana Kwaku Baah Brentu (Kotaa Chief), Nana kwadwo Dartey (Chief linguist) , Ms Affreh (Form Ghana), farmers settlers introduced earlier, and some community members.



Figure 4: Slaughtering of a sheep as part of the rituals performed in ushering in the settlers



Figure 5: Form Ghana's temporal housing for farmers settlers



Figure 6: Evelyn Affreh (E & S) showing the farmer settlers the parcels of land Form Ghana has given them.