Environmental & Social Monitoring Annual Report 2017
Akumadan Plantations

Form international

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Document version	2
Date of document	8-01-2018
Reference	EPA-ES-Akumadan-2017

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INTRODUCTION

`This is the report on social and environmental performance of Form Ghana during 2017. 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**	2007
1.4	**Location**	Akumadan / Offinso North / Ashanti
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		CF00620102 exp. 13-03-2017
2	Water Resources Commission	X		FGLID 421 / 16 exp. 31-12-2018
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)	↑4 - ↓4	↑2 - ↓1	↑6 - ↓5	↑8 - ↓7	↑1 - ↓1	↑9 - ↓8	↑15 - ↓13
Sunyani(HQ) C	-	↑1 - ↓1	↑1 - ↓1	-	-	-	↑1 - ↓1
Akumadan P	↑85 - ↓64	↑44 -↓43	↑129 - ↓107	↑12 - ↓9	↑2 - ↓1	↑14 - ↓10	↑143 - ↓117
Akumadan C	↑129 - ↓4	↑174 - ↓2	↑303 - ↓6	-	-	-	↑303 - ↓6
Berekum P	↑103 - ↓94	↑33 - ↓30	↑136 - ↓124	↑18 - ↓17	↑4 - ↓3	↑22 - ↓20	↑158 - ↓144
Berekum C	↑44 1- ↓46	↑176 - ↓11	↑617 - ↓57	-	-	-	↑617 - ↓57
G.T	↑762 - ↓212	↑430 - ↓88	↑1192 - ↓300	↑38 - ↓33	↑7 - ↓5	↑45 - ↓38	↑1237 - ↓338

Permanent staff (P)
Casual Staff (C)

↑441 highest value for 2017
↓46 lowest value for 2017

2. SITE DESCRIPTION

EPA #	Information required	Information provided
2.2	Location and major landmarks	The Asubima and Afrenso Brohuma Forest Reserves are found in the northern tip of the Ashanti region in the Offinso North District. The reserves form a contiguous block of forest reserve. The nearest towns are Akumadan and Techiman.
2.3	Geographical Coordinates of Concession	The plantations are located within the Asubima and Afrensu Brohuma Forest Reserves in Offinso North District near Akumadan, in the Ashanti region. Coordinates (WGS 84 - UTM) for the reserves are:

Point	X-coordinate	Y-coordinate
1	630.857,53	813.998,60
2	628.112,11	822.930,15
3	620.644,40	820.840,93
4	624.388,38	817.874,20
5	622.666,10	815.162,44

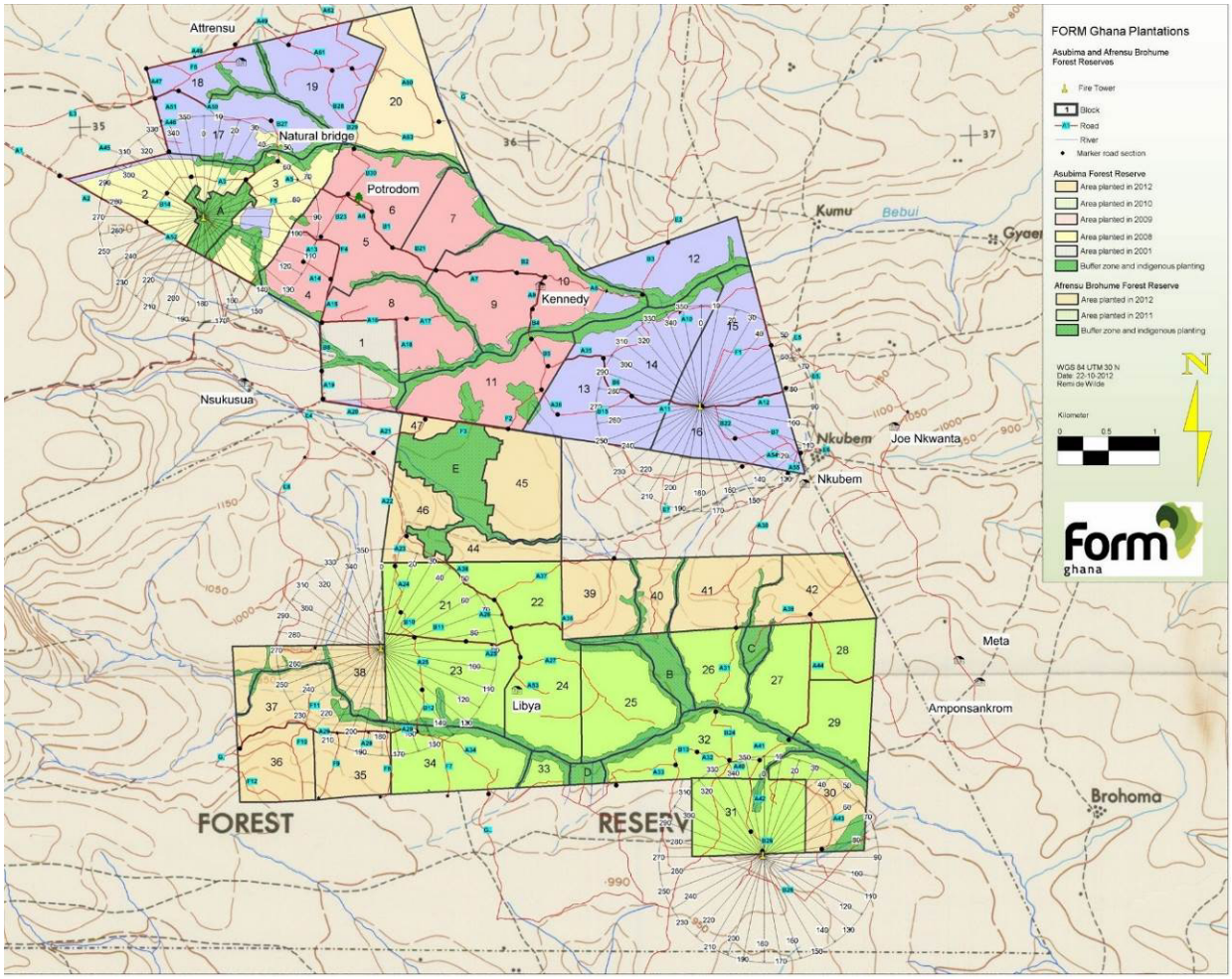
2.3	**Total land take of concession**	3447.4 GIS area
2.4	**Actual Area Forested**	3416 hectares

RESERVE	**LEASE AREA (ha)**	**YEAR (ha)**	**TOTAL AREA (ha)**	**INDIGE-NOUS (ha)**	**TEAK (ha)**	**UNPRODUC-TIVE (ha)**	**AREA PER RESERVE (ha)**
ASUBIMA	1776,5	2001	66,1	11,6	53,8	0,8	1667,5
		2006	107,5	15,0	91,4	1,0	
		2008	171,5	22,4	148,2	1,0	
		2009	609,0	92,3	512,6	4,2	
		2010	713,4	88,5	612,5	12,4	
AFRENSU BROHUMA	1778,1	2011	986,4	132,8	844,3	9,3	1779,9
		2012	793,5	127,8	663,1	2,6	

2.5	**Area under conservation**	521 hectares
	Type of conservation: strict	0 hectares
	Type of conservation: partial	521 hectares
	List some species found: Trees:	Afzelia Africa, Albizia ferruginea. Antiaris toxicaria, Ceiba pentandra, Hildegardia barteri, Erythrophleum ivorense, Khaya anthoteca, Khaya grandifoliola, Milicia excelsa, Triplochiton scleroxylon, Terminalia superba.
	Mammals	Mammals : The most frequently observed species were Praomys tullbergi and Crocidura crossei. Lemniscomys striatus and Crocidura

		jouvenetae were the least observed species, with only one sighting of each species. Large quantities of the straw-coloured fruit bat (Eidolon helvum) can be observed flying over the plantation area at dusk. In daytime, the bats rest in trees at the plantation site.
	Birds:	The moustached grass warbler was the most-ly frequently recorded species. This is likely to be the result of the abundance of grasses in the area, providing suitable habitat for the moustached grass warbler and other weaver species.
2.6	**List any Rivers / Streams traversing or within 100 m of the concession:**	Various sources of the Asuasa stream in Asubima Forest Reserve Various branches of the Brohuma stream in Afrenso Brohuma Forest Reserve.
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:**	Kumu village is some 500 metres away from the plantation and some 200 metres from the Asuasu (Bebui) stream. Nkubem is on the border of the plantation and also on the side of an affluent of the Brohuma stream. Other villages are more than a kilometre away or not bordering any stream.
2.8	**Adjacent land Uses:**	**North:** Teak plantation **South:** Degraded forest Reserve / agriculture /teak plantations **East:** Agriculture **West:** Agriculture
2.9	**What ancillary facilities do you have on site:**	• The nursery is not on the forest reserves. It is about 3 kilometres away from the nearest point of Asubima Forest Reserve. At the nursery the following facilities exist: • 2 staff houses, • 1 guesthouse • 2 office blocks • 1 workshop

		• 1 training centre • 1 canteen • 1 store • 1 fuel station • 3 greenhouses • 1 sanitary block • 4 lockable sea containers (as stores) • 1 kindergarten • 1 guard house • 1 water pump house • 4 shade sheds with irrigation • 6 hectares of irrigated terrain • 1 fence • 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 Akumadan is about 5 kilometres. Some villages are within a distance of 1 kilometre.


FORM Ghana Plantations
Asubima and Afrensu Brohume Forest Reserves
Fire Tower
Block
Road
River
Marker road section
Asubima Forest Reserve
Area planted in 2012
Area planted in 2010
Area planted in 2009
Area planted in 2008
Area planted in 2001
Buffer zone and indigenous planting
Afrensu Brohume Forest Reserve
Area planted in 2012
Area planted in 2011
Buffer zone and indigenous planting
WGS 84 UTM 30 N
Date: 22-10-2012
Remi de Wilde
Kilometer
0 0.5 1
N
Form
ghana
Attrensu
Natural bridge
Potrodom
Kennedy
Nsukusua
Kumu
Bebui
Nkubem
Joe Nkwanta
Nkubem
Libya
Meta
Amponsankrom
Brohoma
FOREST
RESERV

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	3416	86%
Indigenous (Ofram, Awiemfosamina, Kokrodua, Potrodom, Onyina, Emeri, Watapuo	Own nursery	490	14%
3.2.1.b	Expected products form 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. 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 need to be collected from the field and taken back to the site where they are burnt.

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 knifes), 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 decom-pose 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: Waste produced during all processes of the company is sorted and disposed of in a way depending on the nature of the waste. Waste like paper and plastics are burned and the ashes burned. Used oils are stored and sold, old tires can be sold or stored (see waste disposal protocol).

EPA #	Information required	Information provided
3.2.3	**Indicate the type, source, quantities and mode of application of chemicals if applicable**	

	Type	Source	Quantity / Annum	Mode of application
1	Glyophosate (Kalach)	Dizengoff, Accra	0 kg	
2	Clethodim (Select EC 120)	Dizengoff, Accra	0 kg	
3	Triclopyr (Triclon)	Dizengoff, Accra	0 kg	

3.2.4.	What area of land has been planted for the year under review	No area has been planted. The planting in the Akumadan estates finished in 2012.
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:	Asubima Afrenso Brohuma Forest Reserves / Teak plantation
3.3.2	Type of forestry product harvested:	None in Q4 2017

3.3.3	Quantity of forest product collected or harvested per annum	None in Q4 2017
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 2021 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	• Husqvarna chainsaw • Farmtrac tractor • Winch
3.3.8	Area operated / size of the land covered:	No extraction in Q4 2017

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 2017 were 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 were to have no work related disease and no serious work related injuries in 2017

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

Environmental objectives for 2017 were 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 were to have no work related disease and no serious work related injuries in 2017

5. ENVIRONMENTAL MANAGEMENT ACTIVITIES

EPA #	Information required	Information provided
5.1	What type and quantities of waste does your operation generate e.g. liquid, farm waste (plastics) List them: a) solid	• 36 used tires • plastic bags were burnt • 72 empty plastic bottles • 9 car batteries
	b) liquid	Liquid waste concerns mostly used engine oil. Volume produced in 2017 was 242.6 litres
5.2	How do you manage the waste streams (listed in 5.1. above) handling, treatment and disposal	See protocol 4
5.3	Provide brief information on the following a) measures put in place to prevent bush fires	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.
	b) practises employed to control weeds and pests	Now that the plantation is reaching the closed canopy stage, weed are mostly suppressed. Only in some of the spots where the trees are youngest is there any need for weeding / chemical weeding. These are the practises employed to control the weeds.
	c) practises employed to conserve biodiversity	Biodiversity 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 www.formghana.com).
5.4	List soil management practises	Form Ghana protects the soil through

EPA #	Information required	Information provided
	undertaken (mulching, erosion control, etc.).	reforestation 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 Asubima or Afrenso Brohuma in 2017
b	How were the diseases / pests managed?	No management needed, as there were no pests or diseases.
c	Practises employed to manage admitted farms:	No admitted farms within the Form Ghana area.
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. Stakeholder meetings were held twice during 2017 and sensitisation meetings were organised prior to the fire season. Form Ghana beliefs 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 not an issue in Asubima / Afrenso Brohuma. 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	Glyophosate (Kalach)	0 kg	Containers kept on site / no left over product	None
2	Clethodim (Select EC 120)	0 kg	Containers kept on site / no left over product	None
3	Triclopyr (Triclon)	0 kg	Containers kept on	None

			site / no left over product	
3.7 b	**b) Management practises in place to prevent / control discharge of chemical; contaminants into the environment:**		Form Ghana adheres to it protocols and procedures. In this case protocols P05 Responsible use of pesticides, Protocol 04 Waste Management and P16 storage of Fuels, lubricants and toxins.	
5.8	**Indicate resource use (energy and water) for Q3:**			
Fuel Type	Diesel		Petrol	
	Akumadan	Berekum	Akumadan	Berekum
Total	23354.5	83897	6266.8	7450
	Power:		Use of power was **27271** kilowatts at the Akumadan site for 2017. This power was purchased from VRA.	
5.9	Explain the variation (increase / decrease) in trend:			

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 - 2017		
DATE	TOPIC	PARTICIPANTS
18th July	PSP Monitoring	4 - Permanent 4 - Casual
14-19th August	Foremen Training	11 – Permanent
29th Aug-1st Sept August	Forest Fire Fighting	36 - Permanent
20th Sept	Typhoid Fever	108 - Permanent 9 - Casual
29th Sept	Snake Bite	112 - Permanent
13th Oct	Marking for thinning	6 Casual
27th Oct	First Aid	114 - Permanent
1 -3 Nov	Pruning of teak branches	44 - Casual
24th Nov	Forest Fire Fighting	15 Casual 6 Permanent
25Th Nov	Forest Fire Fighting	15 Casual 15 Permanent
2nd Nov	PSP Monitoring	4 Casual

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 4 pieces
	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.

Year	**2017**
Workers	398
Medical attention	916
Interventions / person	2.3

During 2017 medical attention was issued 916 times. The most frequent ailment was cough (123 times).The second most frequent ailment was Malaria that occurred 114 times. Stomach ache and waste pains both occurred 71 times. During the year 84 cases were referred to hospital for more detailed diagnosis or further treatment. The number of cases per person has come down from 2.9 to 2.3.

6.5	Did you record any accidents during the year? If yes indicate the type(s) of accidents and frequency:	An accident occurred with personnel transport on the second of august. It involved 45 people.
6.6	What accounted for these accidents?	The drivers swerved of the road to avoid a motorbike that suddenly appeared. This was a person from outside the company
6.7	How were the accidents managed?	A report + analysis were made. All involved were sent to hospital. All involved were discharged soon after. One person sustained more serious injuries and is still recovering.
6.10	Provide a brief on the company's emergency response plan:	Form Ghana has a protocol which dictates how to act in case of emergency. This is Protocol 08 First Aid Procedures & Emergency Evacuation.
6.11	Provide a brief on community social responsibility	

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.

Two stakeholder meetings was organised in Akumadan. The main subjects discussed were fire in the plantation, the possibility for people to do intercropping in Tain II Forest reserve and the public ablution facilities that Form Ghana want to construct at Akumadan.

Fire education was given in and around the Form Ghana areas. As the use of fire has become part of their lifestyle, all communities were advised to use fire with great caution. Loss of soil fertility due to fire is widespread as farmers are compelled to use chemical fertilizer to augment crop yields. Community members were advised not to leave any fire unattended, even before leaving farms for their homes. Recalcitrant members are to be reported to the appropriate authorities for sanctioning and redress. Farmers can ask for free assistance of Form Ghana on fire issues when needed during land preparation.

In general, the communities expressed great appreciation for the collaboration during the yearly fire education program in the communities and also promised to keep fire out of the communities and the forests.

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 DECEMBER 2017

An annual social monitoring is performed to see how communities fare and how the communities perceive Form Ghana. One of the things monitored is the facilities available to the people:

Question-naire	Response from communities							
	Atrensu (fr)*	**Nkubem (ofr)****	**Joe-nkwanta (ofr)****	**Libya (fr)***	**Ampon-sakrom (ofr)****	**Sreso/ Konkom-ba(ofr)***	**Meta(ofr)***	**Nsukuasua (ofr)***
Attendance	M(8),F(1)	M(5),F(0)	M(24),F(11)	-	M(22),F(8)	M(18),F(0)	M(21), F(11)	M(13),F(5)
1a. Facilities								
Electricity	none	none	Present (Hydro-electricity)	-	None	None	Present (Hydro-electricity)	None
Drinking water	Stream ("Atrensu")	Stream ("Ad-woasika")	Stream ("Srada", "Brohuma")	-	Well(1)	Stream (Nana Kontua)	Borehole (1)/ stream	Stream (Nsukuasua)
Church /mosque	Church(1), mosque(1)	Church (none), mosque (none)	Church(none), mosque(none)	-	none	Church present,(2) mosque present(1)	Church present(3), mosque(1)	Church present(1), no mosque
1c. location								
Water source	200m from village on foot	2km from village on foot	1.5km from village on foot	-	3.2km by foot from the village (Amponsah krom)	500m from village on foot	Stream 500m from village on foot/bore hole within the community	200m away from village
Hospital	Akumadan *10km *By foot/bicycle / motor tricycle	Asunasa *5km *By foot/motor tricycle	Asunasa *5km *By foot/motor tricycle	-	Nsunasa *6.4km Nkenkansu *14.4km *All by - motorbike	Akumadan *8km *By foot/bicycle / motor tricycle	Nsunasa *2km By foot/car/ motorbike Nkenkansu *20km By foot/car/ motorbike	Akumadan *12km *By motor-bike
Primary school	Sre-so(8km)/Akumadan *10km *On foot/car	Dompoase *2km * On foot/bicycle	Dompoase *2km * On foot/bicycle	-	Meta *2.4km *By foot	Sre-so/Akumadan *4km/8km *By foot/ bicycle	Within the village/ community (Meta) by foot	Akumadan *12km away *By foot/ motorbike Nsukuasua *250m *By foot
Secondary	Akumadan *10km *On foot/bicycle/ motor tricycle	Nkoranza *28km * by car	Nkoranza *28km * by car	-	Akumadan *8km *By car/mini bus Nkoranza *40km *By car/ mini bus	Akumadan *8km *By foot/bicycle / motor tricycle	Akumadan *8km *By car/mini bus Nkoranza *40km *By car/ mini bus	Akumadan *12km *By foot/ bicycle
Dirt road	Atrensu-Akumadan *8km *On foot/bicycle/ motor tricycle	Nkubem-Dompoase/ Nsunasa *3km * by foot/bicycle	Joe Nkwata-Dompoase/ Nsunasa *5km * by foot/bicycle	-	Amponsah krom-Meta 1.5km by foot/ motorbike	Sreso-Akumadan *8km *On foot/bicycle/ motor tricycle	Meta-Amponsah krom 1.5km by foot/ bicycle	Nsukuasua-Akumadan *12km *By foot/bicycle/ motor tricycle
Paved road	Akumadan-Techiman by car	Nkoranza *28km	Nkoranza *28km	-	Kobreso *14.4km by motorbike	Techiman – Akumadan-Kumasi highway	Kobreso *14.4km by motorbike	Akumadan *8km
Market	Akumadan *10km * On foot , bicycle or motor tricycle	Nkoranza *28km by mini bus	Nkoranza *28km by mini bus	-	Abofour, Nkoranza on motorbike , car/ mini bus	Akumadan on foot/motor tricycle	Abofour, Nkoranza on motorbike , mini bus	Akumadan *12km By motor-bike

The Positive impacts and Expectation and Concerns of the community are monitored annually through interviews.

Community	Positive impacts	Expectation	Concerns
Atrensu (fr)*	Availability of roads for them by the company to transport their produce to the market Employment opportunities (casual/contract workers) for village members	Needs a school building Needs a health center/clinic	Permission to collect wood residue from thinning to provide stakes for their yam farming Over speeding by drivers of form Ghana and petitioned that drivers be advised
Nkubem (ofr)**	Employment opportunities (casual/contract workers) village members	Assistance with a school building for the village Health center/clinic Needs a portable drinking water Grading of their roads	No toilet facility for the community Long distance to the community's source of drinking water
Joe-Nkwanta (ofr)**	Employment opportunities (casual/contract workers) village members	Needs a school building Needs a health center/clinic	No toilet facility for the community Long distance to the community's source of drinking water
Libya (fr)*			
Amponsakrom (ofr)**	Employment for community members Reduction of wild fires	Provision of portable drinking water Assistance with a clinic/health center	Unavailability of farm lands to farm since their main occupation is farming
Sreso/Konkomba (ofr)*	Reduction in bush fire occurrences that previously destroyed their crops. now have good road to transport food crops and other stuff to market some of their inhabitants are employed by the company as mentioned by some members	Need School building, Need toilet facility Need a portable drinking water	Needs urgent assistance for their school building at Sreso. Overspeeding of some drivers on the road. Entreated that speed breaks be made and drivers (FORM GHANA) advised
Meta (ofr)*	source of Employment for youth in the community access to roads networks within the plantation collection of NTFP's from the (off-reserve)	Assistance with a clinic Assistance with roofing of a school building within the community Assistance with Construction of a school park	no farmlands for community members permission to collect wood residue from thinning for their yam farms
Nsukuasua (ofr)*	fire occurences that use to burn their farms has reduced considerably	school building needs assistance with electricity poor road hence needs assistance with grading/re-surfacing	poor condition of water source when it rains hence needs a borehole/pipeborne water

Also the ways in which the companies communicates with the stakeholders is evaluated annually through interviews.

Community	Company accessibility	Information transfer
Atrensu (fr)*	Access they have with the company has improved and they appreciate that.	Through personal interaction/communication
Nkubem (ofr)**	The doors of the company is always open to them as mentioned by most members	Through personal interaction and group discussion
Joe-nkwanta (ofr)**	Access to company is good. The doors of the company are always open to them	Information transfer through group discussion has been the channel
Libya (fr)*	-	-
Amponsakrom (ofr)**	Relationship with the company is very good	Through personal/group interactions and stakeholder meetings
Sreso/Konkomba(ofr)*	Have good relationship with the company and have good access to the company, interaction with the company has improved and they are satisfied	Through personal interaction/communication with staffs of the company
Meta(ofr)*	Accessibility to the company is very good	Through personal interactions/stakeholder meetings
Nsukuasua (ofr)*	Accessibilty to the company has improved as compared to the previous years	Through group discussions/stakeholder meetings

8. ENVIRONMENTAL MONITORING

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

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

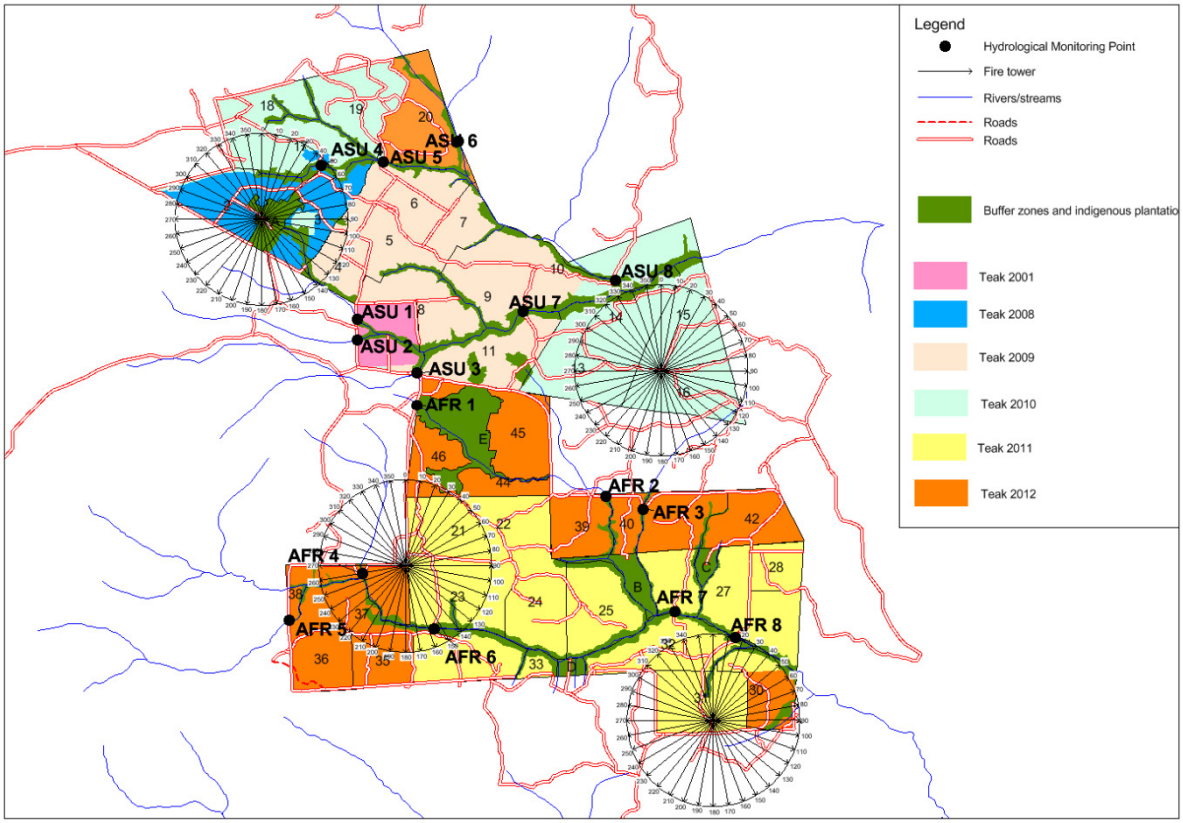
No change

Report on water quality (OS4)

Water quality has not changed significantly

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

Pump ID	Location	Capacity	Total volume pumped 2017	Action time
Ground FOS	Site Berekum	2Hp	3,243,000m3	Daily
Ground FOS	BII Berekum	1 Hps	840m3	Daily
Ground FOS	B46 Berekum	1.5Hp	0	
Xtra	Site Akumadan	2Hp	2,754m3	Daily
Saer	Site irrigation Akumadan	30Hp	572,274,720m3	Daily



Location	X	Y	Alternative names / coordinates	Location description
Afrenso brohuma				
AFR 1	625116	817424		Stream enters the plantation
AFR 2	627535	816260		Stream enters the plantation - originates in the plantation
AFR 3	628004	816094	In February 2015: 30 N 628028 816132	Stream enters the plantation
AFR 4	624425	815279		Stream enters the plantation
AFR 5	623488	814675		Stream enters the plantation
AFR 6	625344	814573		Stream in the plantation
AFR 7	628410	814791		Stream in the plantation
AFR 8	629187	814456		Stream exits the plantation
Asubima				
ASU 1	624356	818529	64ha N	Stream enters the plantation
ASU 2	624358	818265	64ha S	Stream enters the plantation
ASU 3	625120	817838		Stream enters the plantation
ASU 4	623903	820484	Natural bridge	Stream in the plantation - originates in the plantation
ASU 5	624689	820532	Block 20	Stream in the plantation - originates in the plantation
ASU 6	625643	820795		Stream enters the plantation - partly through plantation

ASU 7	626478	818618		Stream in the plantation
ASU 8	627657	819015		Stream exits the plantation

Results February 2017

Location	pH	Conductivity in ppm	Temp (Celcius)	Turbidity (cm)
Afrensu Brohuma				
1	-	-	-	No water
2	-	-	-	No water
3	-	-	-	No water
4	5,9	39,4	22,9	120
5	5,6	49,4	24,0	96,4
6	5,5	47,6	24,3	119,9
7	5,6	46,9	24,3	120
8	5,4	49,1	24,3	109,1
Asubima				
1	6,7	39,4	23,2	93,1
2	6,7	52,1	22,5	56,0
3	6,4	39,9	24,5	55,3
4	6,2	38,4	26,3	120
5	5,9	47,3	24,5	100,8
6	5,9	33,9	24,4	85,4
7	6,3	40,7	22,1	58,6
8	6,4	40,7	22,7	93,6

Results May 2017

Location	pH	Conductivity in ppm	Temp (Celcius)	Turbidity (cm)
Afrensu Brohuma				
1	No water	-	-	-
2	No water	-	-	-
3	No water	-	-	-
4	6,6	289	25,5	54,2
5	6,5	149	25,2	120
6	6,7	188	25	120
7	6,5	163	24,9	104,2
8	6,2	160	25,2	71,7
Asubima				
1	6,5	32	26,2	71,6
2	6	96	26,6	52
3	6,3	66	28	75,9
4	6,5	19	25,4	120
5	6,2	76	25,8	88,7
6	6,6	66	27,6	70,1
7	6,4	66	26,3	40,8
8	6,1	81	26,5	49,6

7.2 Explain if values were not provided

The requirements by EPA for water monitoring were not know to FG. Form Ghana has its own way of monitoring and the information required by the EPA will yet need to become part of the monitoring system.

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

No.	Parameter	Base line	Year 1	Year 2
1	Dissolved Oxygen			
2	pH			
3	Temperature			
4	Nitrate			
5	Ammonia			
6	Phosphate			
7	Turbidity			
8	COD			
9	BOD			

Explain variations observed:

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

No new measures will be implemented. But as with all work in the natural environment continuous vigil is needed to keep up to the standards.

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).

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

Management objectives	Criterion	Indicator	Verifier	Frequency of monitoring
	1.7 Waste Management	1.7.1 Report on the waste management system	report	Annual
2. Guarantee financial and economic sustainability through the generation of income from the produced round-wood and carbon sequestration	2.1 Forest production	2.1.1Harvest 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 Biological diversity

Present the results form biodiversity monitoring with emphasis on:

A fauna study is underway in the Akumadan plantations. It will take most of December. The small and medium sized fauna as well as bird fauna is under inventory by Dr. William Oduro of KNUST university.

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

The report needs to be received before any affirmative comment can be made on rare species.

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

No new activities have been undertaken. Last monitoring dates from 2015. This showed that the protection measures are having a positive effect. Results from that study showed that in the buffer zones:

- The forest in the buffer zones of Asubima FR has shown development over the past 5 years to a more mature forest, with larger average height and DBH.
- The buffer zones in Afrensu Brohuma show typical characteristics of a disturbed forest that is now rejuvenating, with a large number of small trees and a small number of large, mature trees.
- A number of species identified in the buffer zones is classified as 'vulnerable' by the IUCN Red List: Nesogordonia papaverifera, Entandrophragma cylindricum, Khaya anthotheca, Coffea togoensis, Hallea ledermannii.
- The Genetic Heat Index of Asubima FR has increased since 2010, emphasizing the need for conservation of the buffer zones.

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

Document changes in mammal and bird diversity (OS3)

9.2.2 Forest health

Document any incident on pest occurrence and pollution (OS4)

No incidents or pests were recorded.

9.2.3 Protection against fire

Report on fire management and incident;

No fires were reported during the last quarter. Preparations for the coming dry season have been going on however. This concerns the repair and addition of equipment and the training of the fire response team. Next quarter the sensitization of the surrounding communities will commence.

9.2.4 Soil protection

Report on observed soil erosion and possible other soil problems

No soil erosion was observed in the plantation. Monitoring of all the PSP in the teak part of the plantation has been done. Observations on soil erosion were part of this monitoring. No particular erosion was encountered.

9.2.5 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)

EPA has evaluated the ESMP for the Akumadan plantation and has given remarks to be addressed. A new version of the ESMP has been submitted. EPA has evaluated the new version as well and has provided some minor comments for adjustment.

9.2.6 Rainfall

Update the table with rainfall data

Nursery	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2009	0	0	43	110	125	222	138	25	112	125	64	0	964
2010	0	54	50	184	119	162	309	63	136	258	28	27	1390
2011	8	48	65	51	128	339	67	38	257	241	0	0	1241
2012	0	33	75	106	229	128	67	8	25	253	64	13	1000
2013	0	73	97	64	189	59	123	25	249	97	27	4	1005
2014	15	26	129	181	125	197	60	94	198	145	88	0	1256
2015	0	101	53	98	83	104	107	0	118	174	29	0	1258
2016	0	33	90	109	153	82	87	2	249	144	10	13	972
2017	0	5	82	127	141	194	104	84	197.5	91	66	5.5	1097
Tower 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2011	11	31	13	56	93	254	69	57	246	349	0	0	1178
2012	0	31	62	120	162	168	87	9	25	223	75	45	1007
2013	0	86	132	85	178	55	121	9	214	129	71	0	1080
2014	12	27	104	171	114	158	65	81	166	133	89	0	1118
2015	0	94	66	104	56	89	108	4	115	200	35,5	0	1120
2016	1	35	81	95	152	60	84	13	227	151	20	1	920
2017	0	8	83	135	137	185	124	97	184	104	40	1	1098
Tower 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2011	7	22	13	91	136	207	85	118	242	216	0	0	1137
2012	0	45	97	145	187	102	111	0	85	183	84	38	1076
2013	0	119	142	90	137	49	133	16	191	94	60	0	1029
2014	25	15	110	302	84	201	74	183	152	173	131	0	1448
2015	0	119	144	93	49	103	96	5	89	194	36	0	1450
2016	2	13	68	112	112	36	90	14	223	140	39	5	854
2017	0	15	120	142	170	185	104	120	149.5	43	39	24	1111
Tower 3	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2012	0	45	75	130	180	142	111	0	9	162	92	13	958
2013	0	72	102	101	138	59	200	5	236	95	57	0	1065
2014	26	24	62	235	110	130	72	109	112	117	101	0	1098
2015	0	132	97	80	54	106	96	0	80	170	34.5	0	1098

2016	1	18	98	105	92	58	72	15	238	139	55	0	891
2017	0	12	105	217	142	201	161	167	131.6	56	21.5	35	1249
Tower 4	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2012	0	0	0	0	0	0	0	0	0	98	97	2	197
2013	0	35	183	197	196	92	199	21	307	82	102	0	1413
2014	24	27	114	162	66	167	26	71	171	136	73	0	1037
2015	0	73	99	112	58	138	79	0	104	203	54.5	0	1037
2016	8	23	121	158	115	29	81	17	213	116	27	15	923
2017	0	27	149	185	145	215	94	170	100.1	51	18	6	1160

9.2.7 Forest production

Update report on sales made during the years

9.3 Economic aspects

Present sales made and benefit sharing paid
No new sales made during 2017.

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)

Type of Cases	Number of Cases	Number resolved	Level
Workers PPEs and ID card	2	1 - resolved 1 - ongoing	2
Workers Salary	2	2 - resolved	2
Workers condition of service (Tower conditions)	6	6 - resolved	2
Fair Treatment of workers	3	3 - resolved	2- 2 cases 3 – 1 case

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)**

No. of Males	No. of Females	Total No. of workers
169	73	242

9.4.3 Socio-Economic Impact Mitigation Action Plan for November 2017

Progress and impact of SEIMAP (quantitative and qualitative) (OS5)

9.4.4 Update priority

Since august 2017 much work has gone into updating the information on the project affected people:

- We have updated the number of households and number of buildings. The are now 9 families that will move to Kotaa. All families have already vacated the plantation. The families that have indicated that they will no longer move to Kotaa, have indicated they are no longer interested in moving to Kotaa.
- We have updated the information on the farmers in Tain, and the number of hectares currently under intercropping agreement and available for intercropping including how many farmers have received a 2 year contract and how many a 5 year contract. This part of the RAP has already been implemented and has been reported upon to AfDB in September 2017.
- We still need to update on the Fulani situation. How many head of cattle, how many herders, current routes for grazing and to water points.
- We have updated the plans with the host community (Kotaa) in order to ensure a proper welcome of the new settlers. Facilities have been installed or contracts have been signed for the construction of facilities.
- The land where the PAP from Akumadan will build their houses and will stay has been purchased and the current occupiers have been compensated.

9.4.5 Update discussion PAP

Interviews were held to find out the sizes of the families that will be moving to Kotaa. Nine families will move to Kotaa. Most will move with the whole family, some will move only with the younger children. All people will collect thatch in the vicinity of Akumadan as they think this grass is of better thatching quality than grass found around Kotaa or in Tain II. The grass used is Imperata cylcindrica, which is an indicator of degraded soils. The summary table below is a result of the interviews with the people that were held during October with the questionnaire presented in annex G

No.	Name	move to Kotaa?	Number of people	goods to move
1	Nsobile Amgyzon	yes	7	thatch, wood, utensils, fowl, goats, sheep and luggage
2	Stephen Donanaa	yes	6	2 sheep, tools and thatch
3	Akuure Akanluke	No	-	-
4	Sardor Thadeus	No	-	-
5	Ayondor Akangore	Yes	2	1 goat, 1 sheep, thatch, tools
6	Ntwo ametaqha	yes	4	4 sheep, 1 goat, fowl, tools, thatch
7	Abombangra Achaama	yes	7	thatch, goats, poles, luggage and tools
8	Boapawo Apetega	no	-	-
9	Konokgabono Abee	Yes	5	Thatch utensils, luggage
10	Kwabena Apatea	yes	6	maize, utensils
11	Adongo Achemba	yes	7	goats, sheep, fowls, utensils, luggage, thatch
12	Ataeta Achaa	No	-	-
13	Ababono Nyaaba	Yes	9	Harvested corn, tools thatch

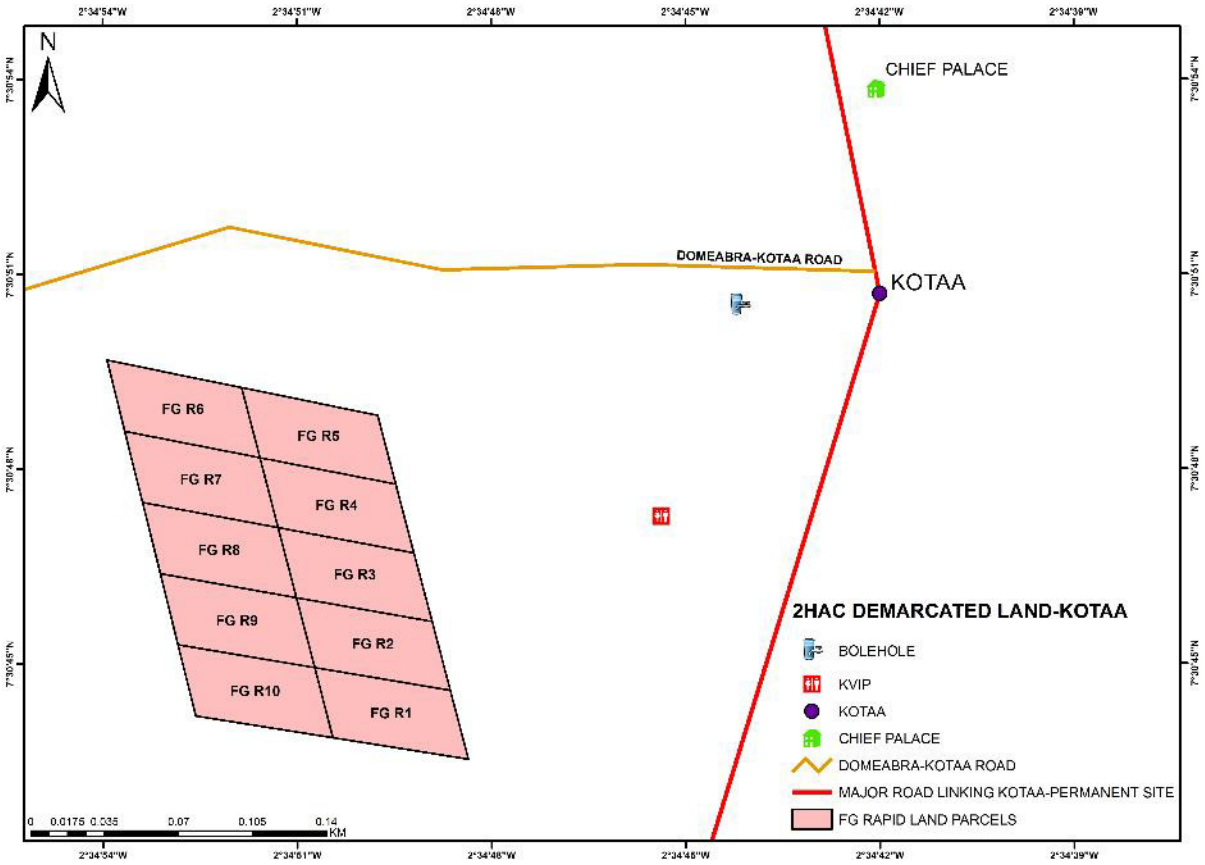
The people (4 families) that will not be moving have signed a letter stating that they voluntarily opt not to move to Kotaa. The letters are attached in Annex J. None of the PAP are living in the Form Ghana plantations currently.

9.4.6 Update constructions Kotaa

Construction of a borehole in Kotaa has been done and the production of the borehole has been tested. The borehole will allow both the settlers and the existing Kotaa community to have access to clean water.

Work has started on an 8-seater KVIP toilet block. This block will increase access to sanitation in Kotaa. This block is in addition to the block given to the community in October 2017. On the map below it is visible that both the bore hole and the ablution facilities are within short distance of the proposed settlement plots.

The land that was made available for the settlers was inventoried. The people that were farming on the land have been compensated. The land is now available and without claim. Contracts and proof of payment are in Annex H to this document.
It has been subdivided in 2000 m2 plots. These plots are available for house constructing by the settlers from Akumadan.



9.4.7 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.

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 **420** two year intercropping agreements are in function and **80** five year inter-cropping agreements.

Community	5yrs	2yrs	Total
Domeabra	0	6	6
Ampenkrom	0	14	14
Arkokrom	0	115	115
Kotaa	0	19	19
Yawtwenekrom	7	35	42
Asantekrom	0	47	47
Kwadwoarko	0	38	38
Oforikrom	6	1	7
Tainso	23	18	41

Community	5yrs	2yrs	Total
Jejemireja	9	0	9
Abuokrom	0	19	19
Namasua	11	0	11
Meremano	24	88	112
Berekum	0	20	20
Total	**80**	**420**	**500**

The inter-croppers come from various communities. The land area farmed with inter-cropping is 559 hectares.

9.4.8 Update Fulani herders

A census of the size of the herds and current moving patterns of the Fulani herder is still to be done. This will be verified in the coming time.

10. CONCLUSIONS

From the reporting it appears that mainly the water monitoring system needs to be put in place. The other aspects of company E&S are in proper working order.