

**Summary Report of Planning and Management
for Olam Palm Gabon, Mouila Lot 2
RSPO New Planting Procedures
December 2013**

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RSPO NEW PLANTING PROCEDURES

Summary report of planning and management

1. Executive Summary

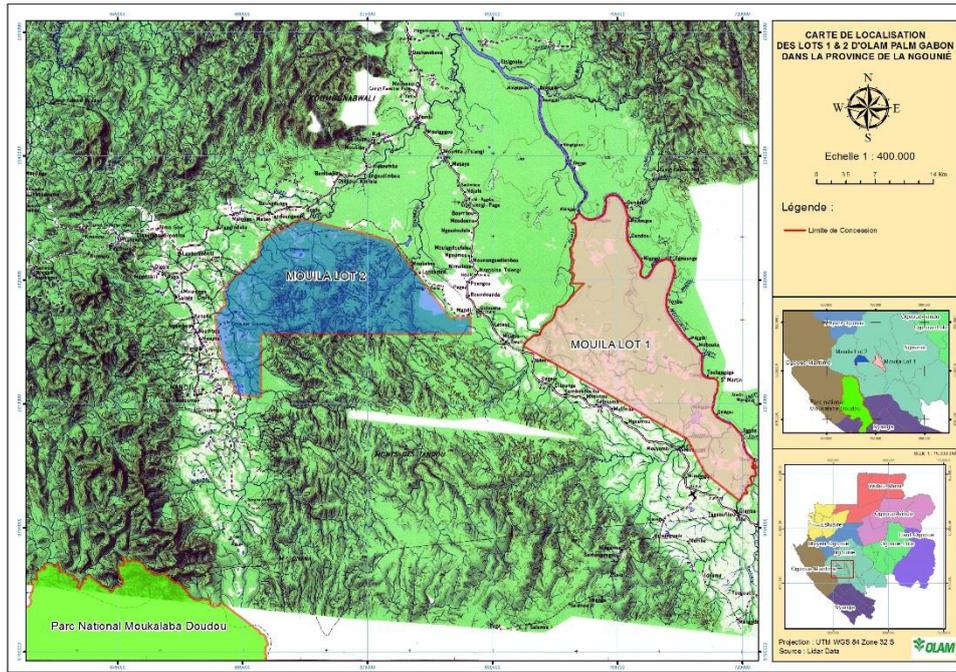
In November 2010, Olam International partnered with the Government of Gabon in a 70:30 Joint Venture to develop commercial and smallholder palm oil plantations in line with the Roundtable on Sustainable Palm Oil Standard. The first phase, of a two phase development plan, will focus on developing 50,000 hectares of commercial plantations. Upon completion of this area, smallholder plantation development will commence as a part of the second phase.

To date, the New Planting Procedure (NPP) was successfully completed for 20,030 hectares and 35,354 hectares for Awala and Mouila Lot 1 Plantations respectively. This Summary Report of Planning and Management concerns a third site, Mouila Lot 2, covering 31,800 hectares. As per the New Planting Procedure, a High Conservation Value Assessment, which includes calculation of above ground carbon stock, and an Environmental & Social Impact Assessment have been conducted by the qualified assessors, Proforest and Ecosphere. Additional studies on agronomic feasibility have also been carried out. Consultation and engagement with communities based on the impact assessments and social participatory mapping is ongoing and Olam seeks to obtain their free and informed consent prior to commencing plantation development.

As confirmed during the agronomic, environmental and social due diligence process, there are no areas of peat soil or primary forest in the site. All high conservation value areas and mature forests have been identified and will be demarcated for conservation prior to land clearing. While there are no communities situated within the concession area, nearby villages have customary use rights to the area which are being recognized and negotiated in a transparent and participatory manner through the FPIC process.

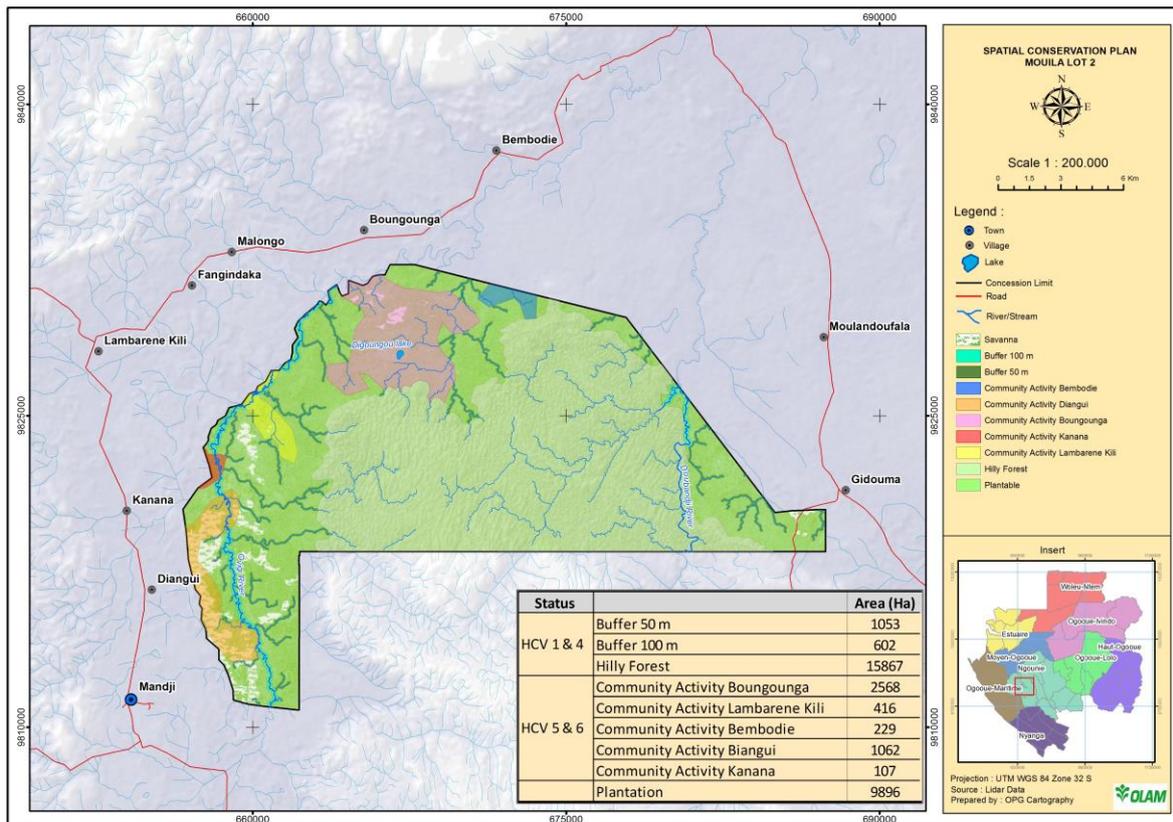
2. Reference Documents

- *Assessment Reports*
 - 'Environmental and Social Impact Assessment for Oil Palm Plantation Development, Mouila Lot 2,' (November 2013) Ecosphere
 - 'High Conservation Assessment (HCV) Olam Palm Gabon Mouila Lot 2,' (November 2013) Proforest
- *Related Legal and Regulatory Permits*
 - Concession agreement for long-term lease between the Government of Gabon (GoG), represented by the Prime Minister, and Olam Palm Gabon, issued by the Prime Minister, the Minister of Economy and Sustainable Development and the Minister of Agriculture, Livestock, Fishery and Rural Development, 5 June 2012. This agreement summarizes the rights and obligations of Olam Palm Gabon on the acquisition of a concession north of Mouila with a total area of 31,800 ha (period of 49 years, renewable once) to be developed for oil palm.



Map 1: Landscape Level Map

Map 2: Concession Level Map (with HCV and Riparian Areas marked)



3. SEIA and HCV Management & Planning Personnel

- *Organisational information and contact persons*

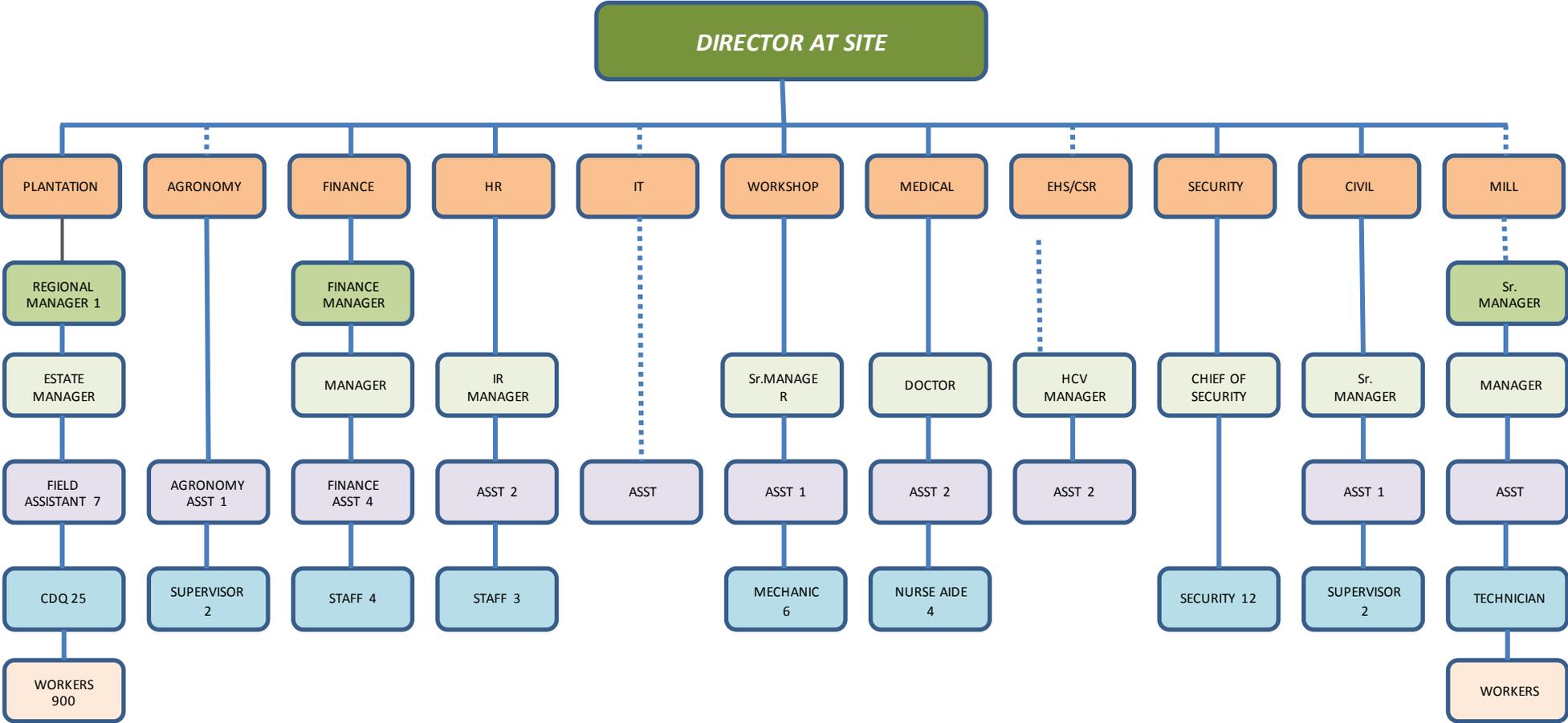
Contact Persons	Position	Entity
Supramaniam Ramasamy	Global Head of Plantations	Olam International Ltd
Gagan Gupta	Country Head	Olam Gabon
Jacky Riviere	Director- Plantation Operations Department	Olam Gabon
Christopher Stewart	Head, Environment and Sustainable Development	Olam Gabon
Sasitharan Mathavan	Director at Mouila Plantations	Olam Palm Gabon
Arun Venkataraman	Vice President-Pre-Operations	Olam Palm Gabon
Alexandra Booth	Sustainability Manager	Olam International Ltd.

- *Personnel involved in planning and implementation*

The plantation area management will be structured in units to ensure implementation of best practices and facilitate training of workers, who are presently unfamiliar with plantation work and techniques, to ensure that they comply with best agronomic, environmental and social practices. Each of these divisions will be managed by an Assistant Manager. Suitable standard operating procedures have been established. The Director at Site and assistants will work closely with the Sustainability team to ensure that practices adhere to RSPO Principles and Criteria and the SEIA Management Plan.

Role	Responsibility	Entity
Plantation head	Operational planning, implementation of best practices in establishing plantations	Olam Palm Gabon
Director, Plantations Operations	Implementation of Corporate Responsibility and Sustainability.	Olam Palm Gabon
Finance Manager	Budgeting, Regular payments and cash flows	Olam Palm Gabon
HR Manager	Hiring and evaluating employees; conducting inquiries and resolving HR issues	Olam Palm Gabon
QEHS Manager	Implementation and monitoring the effectiveness of health and safety procedures	Olam Palm Gabon
Estate managers	Training/guidance of workers to ensure compliance with best practices; overall operation of the unit	Olam Palm Gabon

OLAM PALM GABON – MOUILA LOT II - ORGANIZATIONAL CHART



..... Denotes Administrative responsibilities.

- *Stakeholders to be involved*
 - Ministry of Housing, Urban Development, Environment and Sustainable Development, Director General of Environment and Protection of Nature
 - Ministry of Water and Forests, Director General of Water and Forests
 - Ministry of Agriculture, Livestock, Fisheries and Rural Development
 - Directorate of Artisanal Fisheries
 - Ministry of Mines, Petroleum, and Hydrocarbons
 - Ministry of Labor, Employment and Social Welfare
 - The provincial administration of Ngounie Province which includes the administration of Tsamba Magotsi and Douya-Onoue departments
 - Worldwide Fund for Nature (WWF)
 - Wildlife Conservation Society(WCS)
 - Brainforest (NGO)
 - Institut Gabonais d'Appui au Developpement (IGAD)
 - The communities of Malongomabeyi, Kanana, Bongounga, Moudouma, Fanguindaka, Diangui, Bemboudie, Yombi 3, Lambarene-kili, Guidouma, Mouladoufouala

4a. Summary of Management and Mitigation Plans (SEIA)

- *Mitigation & management plans to minimize negative socio-economic impacts/enhance social contributions*

Potential Impact	Action Plan	Adherence Indicators	Timing	Person Responsible
Reduction or loss of areas for village plantations, hunting, fishing or collection and exploitation of timber & non-timber forest products	Inform communities about the value of the land and their rights prior to negotiating conservation and/or compensation for relinquishment of lands	<ul style="list-style-type: none"> • Minutes of meetings with villages available 	Prior to land clearing	Social Manager
	Demarcate areas that will be maintained for continued village use (NTFP, agriculture) and include in GIS database	<ul style="list-style-type: none"> • Social Participatory Maps available • No social conflicts or intrusions onto land 	Prior to land clearing	Social Manager/GIS/ community representatives
	Establishment of village committee for negotiation and long term engagement and monitoring	<ul style="list-style-type: none"> • Minutes of village committee meetings • Reports on progress against social commitments are available • Social Contracts signed by community representatives 	Prior to land clearing	Social Manager
	Provide access to timber cleared from the site for community use and funding from sale of timber for the benefit of community.	<ul style="list-style-type: none"> • Records of contributions to community fund from sale of timber • Records of tax paid to Government for timber • Record of quantity of timber provided to communities 	First year of development	Social Manager
Disruption of Sacred or Cultural Sites	Demarcate and conserve sacred areas with communities (FPIC)	<ul style="list-style-type: none"> • GIS coordinates of sacred sites available • Monitoring plan for sacred sites in place 	Prior to land clearing	Social Manager
	Inform employees and subcontractors on appropriate conduct with regards to respecting sites	<ul style="list-style-type: none"> • Minutes of meetings and attendance available • No intrusions on sacred sites 	Prior to land clearing	Training Manager/Social Manager
Social Conflict caused by potential influx of	Consult with Community Representatives prior to hiring foreign labour for plantation maintenance	<ul style="list-style-type: none"> • Minutes of meetings available • Action plan to prevent social conflict based on recommendations from representatives in place 	Prior to hiring foreign labour	Social Manager

foreign workers	Provide adequate housing and sustenance within the Plantation for foreign workers to reduce intrusion into communities and impact on biodiversity	<ul style="list-style-type: none"> • # houses established proportionate to foreign workers • Sale of food on site for workers • No hunting or theft of crops by foreign workers 	Prior to hiring foreign labour	Director at Site
	Inform foreign workers about local customs	<ul style="list-style-type: none"> • Awareness Programme is implemented and attendance is recorded 	Immediately upon joining	Social Manager
Intensification of hunting and fishing	Ban hunting by foreign plantation workers and prohibit any worker from hunting within the concession during working hours	<ul style="list-style-type: none"> • Records of species seized from hunters on site • Interviews with workers demonstrate understanding of ban • Signs citing ban are posted throughout the site 	Continuous	HCV Manager
	Partner with the National Parks Agency and Ministry of Water and Forest and national NGOs to monitor and enforce compliance with wildlife laws	<ul style="list-style-type: none"> • Partnership agreement with National Parks Agency and/or Ministry of Water and Forests • Presence of National Parks/Water and Forests field officers 	Continuous	HCV Manager
	Partner with local development agencies to establish a programme to ensure food security.	<ul style="list-style-type: none"> • Partnership agreement with local development agency • Plots for cultivation mapped with interested farmers • Seedlings provided to farmers • Records of revenue from sale of produce 	During first year	Social Manager
	Inform villages on sustainable hunting practices	<ul style="list-style-type: none"> • Awareness Raising Programme implemented and attendance is recorded 	Continuous	HCV Manager
Job Creation	Hiring policy favorable to local communities	<ul style="list-style-type: none"> • Documented policy in place • Advertisement of jobs in local communities 	Continuous	HR Manager
	Multiplier effect from capital injection in local communities through payment of wages and hiring of local contractors	<ul style="list-style-type: none"> • Documented baseline of household incomes in affected communities • Social surveys completed on an annual basis to identify changes 	Prior to land clearing	Social Manager
	Provide healthcare to workers	<ul style="list-style-type: none"> • Records of medical care provided • All national workers are covered by health insurance 	Continuous	Doctor
	Establishment of dispensaries and consider providing access to basic medical consultations in local communities (subject to FPIC)	<ul style="list-style-type: none"> • Plans for construction and management of dispensaries agreed on with Communities • Dispensaries are established 	Within 3 years of starting development	Social Manager

	Rehabilitation of schools and teachers housing (Subject to FPIC)	<ul style="list-style-type: none"> Plans for rehabilitation and management of schools and teachers housing agreed on with local Government 	Within 3 years of starting development	Social Manager
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- Mitigation plans for negative environmental effects & Management plans to promote positive environmental effects*

Potential Impact	Action Plan	Adherence Indicators	Timing	Person Responsible
Erosion Prevention/loss of fertility	Demarcate and set aside areas with slopes above 20 degrees and hill forest area as permanent HCV areas	<ul style="list-style-type: none"> Areas marked in GIS database and left undeveloped 	Prior to land clearing	HCV Manager
	Windrow felled vegetation	<ul style="list-style-type: none"> Stacked vegetation between planting rows 	During land clearing	Director at Site
	Terrace slopes between 10-20 degrees, in areas suitable for planting, to prevent erosion and facilitate greater retention of moisture	<ul style="list-style-type: none"> Terraced slopes 	After land clearing	Director at Site
	Establish <i>Pueraria javanica</i> immediately after land clearing to ensure nitrogen fixation and prevent erosion	<ul style="list-style-type: none"> <i>Pueraria javanica</i> is established and maintained in recently cleared areas 	Immediately after land clearing	Director at Site
	Demarcate and maintain riparian buffers according to width of water course to prevent chemical runoff and sedimentation	<ul style="list-style-type: none"> Riparian buffers are visibly marked GIS coordinates of buffer boundaries are available 	Prior to land clearing	HCV Manager
	Establish road construction plan	<ul style="list-style-type: none"> Plan takes into account topography and hydrological systems 	Prior to land clearing	Director at Site
		<ul style="list-style-type: none"> Awareness programme on civil engineering best practices in place for machine operators 	Prior to land clearing	Training Manager
	Compact roads and use laterite, where possible, to stabilize the surface to reduce erosion until suitable surfacing is established	<ul style="list-style-type: none"> Roads are compacted and there is no significant erosion visible during rainy season 	During land clearing	Director at Site
Construct adequate drainage systems at regular intervals to drain and limit concentration of runoff (minimum of field drain to 8 rows); Pay particular attention to areas prone to flooding.	<ul style="list-style-type: none"> Drainage system is in place and is well maintained and clear of blockages Main drain outlets designed to minimise risk of sedimentation to minor rivers No flooding 	After land clearing	Director at Site	

	Establish a system for managing stormwater	<ul style="list-style-type: none"> Stormwater management system in place 	After land clearing	Director at Site
	Construct sediment traps at regular intervals where needed	<ul style="list-style-type: none"> Sediment traps are established and maintained 	After land clearing	Director at Site
Air Pollution	Spray access roads with water regularly to reduce dust emissions	<ul style="list-style-type: none"> Little dust covering vegetation along roads is visible 	Continuous	QEHS Manager
	Limit speed of vehicles and machinery to 40 km/h to reduce dust emissions	<ul style="list-style-type: none"> Warning system for drivers breaking the speed limit is in place No accidents resulting from speeding 	Continuous	QEHS Manager
	Prohibit idling of cars to reduce carbon monoxide emissions	<ul style="list-style-type: none"> No idling cars 	Continuous	QEHS Manager
Maintenance of Water Bodies	Identify physiochemical parameters for water bodies and establish a water quality monitoring and management plan.	<ul style="list-style-type: none"> Baseline assessment of parameters is provided Water Management plan is in place Water analysis reports are available 	Prior to land clearing	QEHS Manager
	Establish pollution prevention procedure which includes steps for clean-up in case of accidental spills or leaks	<ul style="list-style-type: none"> Pollution Prevention Procedure is available Monitoring records and corrective actions taken where spills have occurred are documented 	Prior to land clearing	QEHS Manager
	A piezometer will be used for monitoring of the water table level	<ul style="list-style-type: none"> Record of water table levels 	Continuous	HCV Manager
	Demarcate and maintain riparian buffer zones around bodies of water and along rivers according to width.	<ul style="list-style-type: none"> Demarcation of buffer zones Rehabilitation procedure for accidental encroachments in place Riparian Area monitoring records are available 	Prior to land clearing	HCV Manager
	Train contractors in proper felling techniques and bridge construction to ensure damage to riparian areas are avoided.	<ul style="list-style-type: none"> Training programme in place and attendance is recorded No non-conformities arise 	Prior to land clearing	Training Manager
	Avoid long-term diversion of water from its natural course	<ul style="list-style-type: none"> Corrective actions are taken where water courses have been diverted 	During land clearing	HCV Manager
	Maintain vegetation around ponds to prevent eutrophication	<ul style="list-style-type: none"> Monitoring records of water quality of ponds Boundary of vegetation around ponds is marked 	Continuous	HCV Manager
	Process household waste water before discharging and monitor discharge areas	<ul style="list-style-type: none"> Records of water quality tests of discharge water 	Continuous	QEHS Manager
	Treat sewage from base camp prior to discharge	<ul style="list-style-type: none"> Sewage treatment plan is established Records of tests of discharge water 	Prior to construction of housing	QEHS Manager

	Construct concrete bunds around refueling and chemical storage/handling areas	<ul style="list-style-type: none"> Bunded areas are maintained 	During infrastructure construction	Director at Site
Household waste management	Establish waste management and monitoring plan for household waste which takes into account the collection, sorting and storage of recyclables.	<ul style="list-style-type: none"> Documented Household Waste Management plan is available 	Prior to development of housing	QEHS Manager
	Provide closed trash receptacles in housing area	<ul style="list-style-type: none"> Closed trash receptacles are available No litter around housing area 	During house construction	QEHS Manager
	Establish a leak proof, covered landfill of 25x15x 2 m in accordance to waste storage standards (Decree No. 541/PR/MEFEPEPN regulating waste disposal)	<ul style="list-style-type: none"> Landfill is established and complies with national regulations No leaks from landfill detected 	During infrastructure construction	QEHS Manager
	Inform workers and subcontractors about appropriate waste disposal	<ul style="list-style-type: none"> Interviews with subcontractors and workers reveal understanding of proper waste disposal No sightings of litter 	Prior to land clearing/continuous	QEHS Manager
Vegetative Waste	Windrow felled vegetation to ensure nutrients are returned to the soil	<ul style="list-style-type: none"> Vegetation is windrowed as stipulated in Agriculture Policy Manual 	During land clearing	Director at Site/Regional manager
Ordinary Industrial Waste	Establish a waste management and monitoring plan for collection, sorting and storage of ordinary industrial waste recyclables; workers will be informed of proper handling and disposal of waste in the appropriate receptacle	<ul style="list-style-type: none"> Documented Industrial Waste Management Plan is available Monitoring records are available Corrective Actions, where taken, are recorded 	Prior to land clearing	QEHS Manager
	Inform workers and subcontractors about appropriate waste disposal	<ul style="list-style-type: none"> Minutes of meetings with workers and subcontractors available Interviews with workers and subcontractors reveal understanding of disposal procedure 	Continuous	QEHS Manager
	Define procedures for control and clean up of any spills or leaks	<ul style="list-style-type: none"> Control and clean up procedures are documented Corrective actions taken as per procedures are recorded 	Prior to land clearing	QEHS Manager
Hazardous Industrial Waste	A waste management plan for the collection, treatment, storage and disposal of hazardous industrial waste will be established according to best practices	<ul style="list-style-type: none"> Documented monitoring plan and schedule for waste disposal are available Waste manifests are available 	Prior to land clearing	QEHS Manager

	Define procedures for control and clean up of any spills or leaks	<ul style="list-style-type: none"> Control and clean up Procedures are documented Corrective actions taken as per procedures are recorded 	Prior to land clearing	QEHS Manager
	Inform workers and subcontractors about appropriate waste disposal	<ul style="list-style-type: none"> Minutes of meetings with workers and subcontractors available Interviews with workers and subcontractors reveal understanding of disposal procedure 	Prior to land clearing	QEHS Manager
Reduction of GHG emissions	Control and monitor consumption of oil for machinery, vehicles and use of generators	<ul style="list-style-type: none"> Monitoring records are available 	Continuous	Workshop Manager
	Carry out regular maintenance of vehicles and machinery	<ul style="list-style-type: none"> Documented maintenance history is available 	Continuous	Workshop Manager
	Limit land clearing to planned areas, and maintain and monitor buffer zones & other conservation forest areas	<ul style="list-style-type: none"> Map of protected areas and planting areas are available and specific instructions for clearing are documented and available 	Prior to land clearing	HCV Manager
	Whereever possible, low-polluting modes of transport will be used and fuel consumption will be controlled	<ul style="list-style-type: none"> Fuel consumption record is available 	Continuous	Workshop Manager
	Establish emissions reduction plan based on LUC and operations emissions baseline calculated using the Palm GHG calculator.	<ul style="list-style-type: none"> Documented plan is available 	Prior to Land Clearing	HCV Manager
Reducing Noise and vibration	Maintain all vehicles and mechanical equipment in good working condition according to manufacturers maintenance schedule	<ul style="list-style-type: none"> Documented maintenance history is available 	Continuous	Workshop Manager
	Equip machinery operators with mufflers for protection against loud noise	<ul style="list-style-type: none"> PPE Issuance Register Proper use of PPE in field by workers 	Prior to land clearing	QEHS Manager
	Train machinery operators in appropriate operating practices and raise awareness on physical stress related to operation of machinery	<ul style="list-style-type: none"> Minutes of meetings with operators and attendance sheet are available Operators are not affected by any physical stress from operation 	Prior to land clearing	QEHS
	Limit construction to daylight hours during the week to reduce noise to prevent excess disturbance of inhabitants of conservation areas and local communities	<ul style="list-style-type: none"> No activity outside of working hours 	Continuous	Director at Site

Loss and disturbance of biodiversity	Implement land clearing plan which strictly limits development to areas identified for planting and infrastructure.	<ul style="list-style-type: none"> • Land clearing plan is available • Development does not infringe on set aside areas. 	Prior to land clearing	General Manager
	Demarcate HCV areas in the field and record in GIS database	<ul style="list-style-type: none"> • HCV areas are demarcated in the field and GIS coordinates are recorded in database 	Prior to land clearing	GIS Expert/HCV Manager
	Monitor and maintain HCV areas, riparian buffer zones, and significant slope areas	<ul style="list-style-type: none"> • Monitoring Reports are available • Faunal Surveys are available 	Continuous	HCV Manager
	Discuss wildlife inventories with local wildlife experts and develop a wildlife management plan which is aligned with CBG's management plan	<ul style="list-style-type: none"> • Minutes of meetings with experts • Recommendations are taken into account in a documented management plan 	Within first year of development	HCV Manager
	Partner with the National Parks, the Department of Water and Forests and NGOs to manage HCV areas and enforce wildlife laws	<ul style="list-style-type: none"> • Documented partnership agreement 	Prior to land clearing	HCV Manager
	Prohibit hunting by foreign Olam workers at all times and by any worker during operating hours	<ul style="list-style-type: none"> • Records of hunted species seized on site 	Continuous	HCV Manager
	Establish security posts along access roads and implement regular security controls	<ul style="list-style-type: none"> • Records of species seized • Patrol record 	Continuous	Security Manager
	Provide alternative sources of protein for foreign workers and partner with development organizations to develop animal husbandry programme in villages	<ul style="list-style-type: none"> • Partnership agreement with local development organization • Roadmap for programme implementation • Surveys of current protein consumption in villages completed 	Within first year of development	Social Manager
	Limit operations to daylight hours allowing faunal species to move across the site at night	<ul style="list-style-type: none"> • No activities outside of working hours 	Continuous	Director at Site
Health and Safety	Implement QEHS Policy and Procedures	<ul style="list-style-type: none"> • Documented QEHS plan available • Procedures are posted where relevant • Respect for work code of conduct in field 	Continuous	QEHS Manager
	Monitor and review effectiveness of QEHS Policy and Procedures	<ul style="list-style-type: none"> • Minutes of QEHS Policy and Procedure Review meetings and corrective actions taken based on recommendations 	Continuous	QEHS Manager
	Equip and train workers on the use of appropriate Personal Protection Equipment	<ul style="list-style-type: none"> • Minutes of meetings with workers • Use of PPE in the field 	Continuous	QEHS Manager

	Train workers in first aid/emergency response	<ul style="list-style-type: none"> • Minutes of meetings with workers • Interviews with field staff reveal understanding of response procedure 	Prior to land clearing	QEHS Manager
	Provide first aid kits at regular intervals throughout the plantation and in all vehicles.	<ul style="list-style-type: none"> • First Aid kits are available and contents inside are within expiry dates 	Prior to land clearing	QEHS Manager
	Report on and maintain records of LTA	<ul style="list-style-type: none"> • LTA records are available 	Continuous	Doctor
Storage, handling and application of Phytosanitary products	Train workers on responsible handling and application of phytosanitary products	<ul style="list-style-type: none"> • Medical reports for any cases of mishandling of chemicals • Records of training and attendance 	Continuous	QEHS Manager
	Prohibit pregnant or nursing women from applying phytosanitary agents and reassign them to maintenance of buildings and/or the creche	<ul style="list-style-type: none"> • Procedure in place for relocating affected women • Medical certificates are available 	Continuous	QEHS Manager
	Conduct regular blood screening of workers responsible for application of phytosanitary agents	<ul style="list-style-type: none"> • Records of screening available • Procedure for taking corrective actions for any irregular screenings is available 	Continuous	QEHS Manager
	Inform workers about sicknesses related to the application of and exposure to phytosanitary products	<ul style="list-style-type: none"> • Records of training and attendance 	Continuous	QEHS Manager
	Construct an eye wash/shower in the case of direct contact with chemicals	<ul style="list-style-type: none"> • Washing stations accessible in storage areas 	When chemical store is established	QEHS Manager
	Label all products with relevant MSDS and post safe-use signage	<ul style="list-style-type: none"> • Relevant labeling is clearly displayed • All MSDS are posted 	Continuous	QEHS Manager
	Arrange products according to their application (ie. pesticide, herbicide, fungicide, miticide) in chemical store	<ul style="list-style-type: none"> • Products are in specified places 	Continuous	QEHS Manager
	Construct an isolated, ventilated room for storage of phytosanitary products and restrict access to appointed personnel	<ul style="list-style-type: none"> • Clearly signed, locked storage area • No noxious smells 	During infrastructure development	QEHS Manager
	Adhere to the national system for the authorization of pesticides in order to limit the damage inflicted by pesticides on non-target species	<ul style="list-style-type: none"> • Absence of contamination 	Continuous	QEHS Manager

	Justify and record fertilizer and pesticide inputs.	<ul style="list-style-type: none"> Records of fertilizer use are available Leaf sample analysis and pest census records are available 	Continuous	Agronomist/ Director at Site
	Apply empty fresh fruit bunches as mulch on the plantation	<ul style="list-style-type: none"> Evidence of use of empty FFB 	Continuous	Director at Site
Exposure to venomous/disease transmitting species	Reduce and prevent illness from insects by determining illness rates, intensity of contact risk with humans and monitoring populations of insects on the plantation	<ul style="list-style-type: none"> Baseline census of illness rates Insect survey are available Monitoring records are available 	Continuous	HCV & Doctor
	Anti-venom will be kept in the infirmary in the case of a snake-bite incident	<ul style="list-style-type: none"> Stock of anti-venom within expiry date 	Continuous	Doctor
	Workers who have been identified as suitable peer educators will be trained to identify venomous snakes in the area and how to care for snake bite victims	<ul style="list-style-type: none"> Record of training sessions 	Continuous	QEHS Manager

4b. Summary of Management and Mitigation Plans (HCV)

- *Plan for HCV monitoring and regular review of data*

The table below provides the HCV present and the management and mitigation actions

To realize these actions the following future monitoring will be carried out.

- Prior to land clearing both the plantable areas and the HCV areas (hill areas) will undergo additional biodiversity surveys with emphasis on large mammals like elephants and great apes to verify that there are no concentrations of these mammals within the plantable areas (thereby guiding the clearing schedules) and the HCV areas (to refine existing management recommendations). These surveys are also critical to develop the Great Ape and Elephant management plans recommended.
- A key feature of both management plans will be plans for animal-human conflict mitigation with emphasis on damage of village plantations.
- Due to the established high quality of water within the concession and to ensure that plantation development does not deteriorate this, water sampling to be carried out in both the Ovigui and the Doubanji rivers across the major seasons. Samples should be taken at entry and exit points to evaluate any impact of plantation development.
- Socio-economic surveys carried out once a year to evaluate peoples' perceptions towards plantation development (employment rate and conditions, maintenance of HCV and livelihoods, food security issues) and any changes in economic levels caused by direct or indirect employment and enhanced livelihood opportunities (sale of agriculture produce to plantation workers, sale of merchandise etc).

HCVs elements	Threats	Management recommendations
HCV 1 Concentrations of rare, threatened, endangered or endemic species <ul style="list-style-type: none"> Unidentified fish species (Doubanji) Endemic herbaceous plants at high altitude (hill forests) 	<ul style="list-style-type: none"> Habitat loss Pollution/sedimentation Increased fishing pressure Hunting/disturbance Human/wildlife conflict 	<ul style="list-style-type: none"> Great ape management plan Elephant management plan Hunting controls Protection of hill forests
HCV 4 Basic ecosystem services in critical situations including protection of water catchments and control of erosion of vulnerable soils and slopes. <ul style="list-style-type: none"> Provision of water for local people Water catchment services (purification, recharge) Prevention of soil erosion (slope forests) 	<ul style="list-style-type: none"> Permanent drying of seasonal streams Reduced flow of rivers and tributaries due to erosion Chemical pollution (pesticide & fertiliser) Reduced water quantity due to forest loss in hilly plateau 	<ul style="list-style-type: none"> Buffer zone delimitation and management Plantation chemical/waste control system Protection of hill and slope forests
HCV 5 Local people's basic needs <ul style="list-style-type: none"> Forests and water courses providing food, fuel and income 	<ul style="list-style-type: none"> Loss of access rights Damage to resources Social conflicts Loss of revenue Reduced access to food (especially protein) 	<ul style="list-style-type: none"> FPIC procedure Community land agreement + demarcation Negotiated access rights Development assistance
HCV 6 Cultural values <ul style="list-style-type: none"> Sacred lakes, old villages, cemeteries, etc. 	<ul style="list-style-type: none"> Loss of access rights Damage to resources Social conflicts 	<ul style="list-style-type: none"> FPIC procedure Community land agreement + demarcation Negotiated access rights

HCV	Definition	Present	Potentially Present	Absent	Approx. area (ha)
HCV1	Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.				Overlaps with HCV 4 area
HCV 2	Large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.				N/A
HCV 3	Rare, threatened, or endangered ecosystems, habitats or refugia.				N/A
HCV 4	Basic ecosystem services in critical situations including protection of water catchments and control of erosion of vulnerable soils and slopes.				17,522 hectares
HCV 5	Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for example for livelihoods, health, nutrition, water), identified through engagement with these communities or indigenous peoples.				4,382 ha
HCV 6	Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.				

- *Management and mitigation plans for threats to HCV areas*

Potential Impact	HCV	Action required	Indicators	Timeline	Role Responsible
Loss of habitat	1	Demarcate identified HCV areas and incorporate in GIS database	<ul style="list-style-type: none"> • HCV boundary markings are visible • GIS coordinates are available 	Prior to Land Clearing	HCV Manager
		Implement monitoring and management plan to ensure effective maintenance of HCV areas	<ul style="list-style-type: none"> • Monitoring and Management Plan is available • Monitoring records available • Corrective Actions recorded • System for review in place 	Prior to Land Clearing	HCV Manager
		Monitor species densities in HCV areas	<ul style="list-style-type: none"> • Faunal Survey report is available 	Continuous	HCV Manager
		Prohibit hunting in concession	<ul style="list-style-type: none"> • Records of security screening at Access Points • # of species seized from hunters 	Continuous	HCV Manager
		Establish system for monitoring and measuring operational compliance with SOPs regarding protected areas during land clearance.	<ul style="list-style-type: none"> • Planning based on block-by-block basis and reviewed as clearing proceeds • Monitoring records • Corrective actions • Documented recommendations from Sustainability team 	Prior to land clearing	HCV Manager
Degradation of hydrological systems	4	Apply controlled dosage of pesticides, herbicides and fertilizers to prevent excessive environmental loads	<ul style="list-style-type: none"> • Records of phytosanitary chemical application (location and amount) • Records of leaf sampling and pest census and Agronomist recommendation 	Continuous	General Manger/Agronomist
		Train workers on safe handling and cleaning of spraying equipment and controlled disposal of waste water and safe storage	<ul style="list-style-type: none"> • Train contractors in relevant SOPs 	Continuous	QEHS Manager
		No spraying of agrochemicals in buffer zones	<ul style="list-style-type: none"> • No evidence of chemical application • Buffer zone monitoring records are available 	Continuous	HCV Manager

		Delineate riparian buffer areas, calculated based on the distance between either opposite banks of a river or the maximum extent of flooded areas as shown in the table below, in GIS database and with non-toxic paint or tape.		<ul style="list-style-type: none"> • Demarcate areas in a GIS database • Maps of riparian areas are provided to contractors and operations teams 	Prior to land clearing	HCV Manager															
		<table border="1"> <thead> <tr> <th>Water body</th> <th>Width of water course (m)</th> <th>Width of buffer zone on each side of water course (m)</th> </tr> </thead> <tbody> <tr> <td>Lake</td> <td></td> <td>To be determined in consultation with local people as most lakes have cultural values (HCV 6)</td> </tr> <tr> <td>Seasonal streams</td> <td>< 5</td> <td>15 - 20</td> </tr> <tr> <td>Tributaries</td> <td>5 - 20</td> <td>50</td> </tr> <tr> <td>Large rivers</td> <td>> 20</td> <td>100</td> </tr> </tbody> </table>					Water body	Width of water course (m)	Width of buffer zone on each side of water course (m)	Lake		To be determined in consultation with local people as most lakes have cultural values (HCV 6)	Seasonal streams	< 5	15 - 20	Tributaries	5 - 20	50	Large rivers	> 20	100
		Water body	Width of water course (m)				Width of buffer zone on each side of water course (m)														
		Lake					To be determined in consultation with local people as most lakes have cultural values (HCV 6)														
		Seasonal streams	< 5				15 - 20														
		Tributaries	5 - 20				50														
Large rivers	> 20	100																			
Implement a water quality management plan which includes monitoring, and corrective/preventive actions		<ul style="list-style-type: none"> • Documented Water Management Plan • Water Quality Analysis results available • Water Quality Parameter Baseline (analysed prior to land clearing) is available 	Continuous	HCV Manager																	
Train subcontractors on the appropriate land clearing methods (felling trees so that they do not fall in protected areas) respecting buffer zones and HCV areas.		<ul style="list-style-type: none"> • Evidence of training and understanding of buffer zones management • No impact on buffer zones 	Prior to land clearing	HCV Manager																	
Plan bridges and river crossings prior to conversion according to best practices recognized by the FAO		<ul style="list-style-type: none"> • Construction plan is available • No erosion around bridges 	Prior to land clearing	Director at Site																	
Plan roads prior to commencing development based on topography and soil structure, using		<ul style="list-style-type: none"> • Roads to be constructed are demarcated beforehand and recorded 	Prior to land clearing	Director at Site																	

		appropriate erosion control methods such as compacting and laying laterite.	<ul style="list-style-type: none"> in GIS database SOP for road construction is available 		
		Construct drains with sediment ponds and road soak ways with sedimentation traps according to FAO best practices to avoid discharge of sediment into river systems	<ul style="list-style-type: none"> Drains, ponds and soak ways are in place Maintenance plan is available 	After clearing	Director at Site
		Grade and terrace cleared areas (where applicable) and establish <i>Pueraria Javanica</i> to prevent erosion	<ul style="list-style-type: none"> Date of cover crop planting SOP for terracing is available 	After clearing	Director at Site
Loss of customary use rights and threats to natural resources (sources of food and revenue)	5,6	Prohibit fishing by foreign workers	<ul style="list-style-type: none"> Records of any infractions by foreign workers 	Continuous	HCV Manager
		Raise awareness among communities about sustainable fishing methods	<ul style="list-style-type: none"> Minutes of meetings with local communities 	Continuous	Social Manager
		Partner with a local development organization to establish a food security programme (agriculture and/or animal husbandry)	<ul style="list-style-type: none"> Partnership agreement is available Roadmap for programme implementation Surveys of current protein consumption in villages completed 	Within first year of development	Social Manager
		Inform communities about project impacts and value of the land, and seek their consent for development through a transparent and documented process (FPIC process)	<ul style="list-style-type: none"> Minutes of meetings with communities Documented consent Information on impacts is available to communities 	Prior to land clearing	Social Manager
		If communities choose to exclude areas from development, delineate areas and record in GIS database	<ul style="list-style-type: none"> Minutes of meetings with communities Maps of areas to be excluded from development for continued community use are available 	Prior to land clearing	Social Manager
		For areas identified as HCV, agree access rights and restrictions.	<ul style="list-style-type: none"> Minutes of meetings with communities Documented consent where areas are to be demarcated as HCV 	Prior to land clearing	Social & HCV Managers
		Agree on social contracts with measurable benchmarks with communities outlining development commitments and a plan for	<ul style="list-style-type: none"> Minutes of meetings with communities Signed social contracts with detailed 	Prior to land clearing	Social Managers

		monitoring progress on a regular basis	<ul style="list-style-type: none"> benchmarks Agreed monitoring plan is available 		
		Plan workers housing in an area on site which reduces risk of hunting and fishing and conduct an immigration and population growth study to guide decisions on managing medium to long term social issues (e.g. health, worker housing, services)	<ul style="list-style-type: none"> Housing construction plan is available Records of internal assessment of alternative housing sites and impacts Documented immigration and population growth study available 	Prior to development of infrastructure	Director at Site
		Provide access to food onsite to prevent hunting and theft of produce	<ul style="list-style-type: none"> Access to adequate food on site 	Continuous	Director at Site
		Partner with local NGO to implement a suitable Bush meat Hunting Awareness programme to inform communities about sustainable hunting practices	<ul style="list-style-type: none"> Documented agreement with local NGO Records of Awareness Programme meetings 	Prior to land clearing	HCV Manager
		Prohibit hunting or enabling of hunters within the plantation by workers and contractors	<ul style="list-style-type: none"> Company policy on hunting is available Records of species seized from hunters 	Continuous	Security and HCV Managers
		Establish clear signage indicating hunting ban	<ul style="list-style-type: none"> Signs are established at regular intervals throughout the plantation 	During land clearing	HCV Manager
		Restrict access to and search all vehicles entering and leaving the site; Seize and destroy and species found	<ul style="list-style-type: none"> Documented Standard Operating Procedure for security Control records Monitoring records of access roads Monitoring records of species sold by the road side Monitoring of elephant, buffalo and chimpanzee and gorilla sightings, counts and locations within boundaries Monitoring of prices of species sold in local shops Annual species surveys 	NA	HCV and Security Manager

- *Management plans to enhance or maintain conservation values of identified HCV areas.*

Impact	HCV	Action required	Indicators	Timeline	Role Responsible
Improved protection of biodiversity in HCV areas	1	Exclude the forested hill area from development area to maintain ecological connectivity to wider forested landscape and CBG concession	<ul style="list-style-type: none"> • Hill forest conservation area is demarcated and GIS coordinates are included in database • Communication with CBG on wildlife management and observations are documented 	Prior to land clearing	HCV Manager
		Prohibit hunting in concession	<ul style="list-style-type: none"> • Increase in faunal populations in HCV areas demonstrated by wildlife surveys 	Continuous	HCV Manager
		Monitor species densities in HCV areas	<ul style="list-style-type: none"> • Faunal baseline surveys are available • Monitoring plan is established 	Continuous	HCV Manager
		Establish system for monitoring and measuring operational compliance with E&S policies, plans and SOPs.	<ul style="list-style-type: none"> • Clearing planned on block-by-block basis and the plan reviewed as clearing proceeds • Minutes of meetings between sustainability team and operations team on review of land clearing progress 	Prior to/during land clearing	Director at Site/HCV Manager
		Partner with local NGO and the Ministry of Forestry and Water to build capacity of the Ministry teams to enforce wildlife laws	<ul style="list-style-type: none"> • Better records of enforcement action • Signed partnership agreement 	Prior to land clearing	HCV Manager
Protection of cultural heritage sites	5	Exclude or protect Sainte Croix d'Echiera and other HCV 6 areas	<ul style="list-style-type: none"> • HCV 5 areas delineated with village representatives • Continuous monitoring of land clearance and compliance with HCV 5s are documented 	Prior to land clearing	Social Manager
Food Security	6	Collaborate with development organizations to establish animal husbandry, fishing and agriculture programme or alternative source of protein policy / cultivation of NTFPs	<ul style="list-style-type: none"> • Signed agreement with development organization • Road map for programme implementation available 	Within first year of development	Social Manager
		Assist local farmers to protect their crops from elephant invasions	<ul style="list-style-type: none"> • Reduction in invasions • Improved productivity 	Continuous	Social Manager

5. Internal responsibility

We hereby sign off on the above Summary Report of Planning and Management. The above may be amended and clarified for improvement during the development of the plantation but it will remain in accordance with RSPO Standards and Principles.



Sasitharan Mathavan



Arun Venkataraman

Signed: 10 December 2013