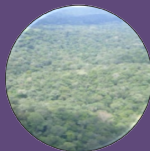


EXPLOITATION PLAN ANNEX

PUBLIC SUMMARY

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INTRODUCTION

The purpose of the Exploitation Plan (EP) Annex is twofold: first, to ensure that the aspects of the original plan are up-to-date with current planning and aligned with Annual Operation Plans (AOP); second, to ensure that the Forest Management Enterprise's (FME) management plans and associated documents are conforming with FSC standards. The Annex therefore provides, as appropriate, updated data and maps; additional information; and links to associated FME documents where these contain the necessary substance to meet the FSC standard requirement.

MANAGEMENT OBJECTIVES AND FOREST DESCRIPTION

The general management objectives of the FME are:

1. To harvest the forest at an optimum level such that all business, social, environmental and technical considerations are addressed.
2. To provide a safe working environment aligned with the principles of occupational health and safety, and to provide employees with competitive wages, basic social amenities and competency-based training.
3. To produce sufficient quantity of high quality timber to meet the requirements of its local processing plants, the domestic markets and its overseas customers.

The land tenure status, timber resource, environmental conditions, land use, socio-economic conditions and adjacent land-use are described in the FME's EP, AOP 2019, Environmental and Social Impact Assessment (ESIA) and High Conservation Value Forest (HCVF) report.

EXPLOITATION PLAN AND ALLOWABLE ANNUAL CUT

The management and silvicultural system employed is based on the CELOS system developed in Suriname. It is a system that is based on natural cycles and the ecology of the forest and utilizes the timber resource while maintaining the forest ecosystem. It is a polycyclic selective harvesting regime utilizing the principles of Reduced Impact Logging. Timber resource and terrain information is gathered on a regular basis by the FME through the pre-harvest inventories while longer term ecological information will be obtained through the FME's permanent sample plot (PSP) program.

The long-term harvest plan has been updated since the production of the original exploitation plan. In order to ensure sustainability the harvest plan has been extended to 20 years.¹ The concept of annual compartments has been revised in order to maintain flexibility in operations and to be able to respond to market demands, other land-uses and seasonal weather patterns. Therefore, a kapvak grid is preferred to compartments within which harvest kapvaks are planned on an annual basis (or even updated during the planning cycle and presented in plan annexes). The grid came into use with kapvak 18.

The Annual Operational Plan for PP6 is in force as of 2019 during which earlier kapvaks will be completed and new kapvaks inventorized and harvested. The current net operable area of the concession is 19,884 ha (after reduction for the mining area and the biodiversity reserve). Using the FME maximum allowed cut of 20 m³/ha this gives a total productive capacity of 397,680 m³ over the whole harvest cycle or approximately 20,000 m³/yr over the 20 year cycle. At an average expected production of 10m³/ha based on historic production, forest composition and current markets a total of 20 kapvaks would be suggested per year to meet the maximum annual allowable cut. However, the FME will adopt the precautionary principle and taking into consideration harvesting capacity and remaining harvest cycle a target annual harvest area will be capped at the average of the allowable area at maximum cut (1000 ha) and the allowable area calculated by expected productive capacity of the forest for the remainder of the cutting cycle (2000 ha). The resulting FME cap is therefore 15 new kapvaks/year with a broad sustainable production forecast of around 15,000 m³/yr (not including roll-over kapvaks) for the next 11 years of the cycle.

¹ The FME proposes a 20 year cutting cycle which is preferable for planning purposes as it coincides with the term of the concession agreement (renewable phases of 10 years). Thus maximum sustainable yield of 25 m³ will be pro-rated to 20 m³

MEASURES FOR IDENTIFYING AND PROTECTING ENDANGERED SPECIES

Measures for identifying and protecting rare, threatened or endangered (RTE) species are described in the FME's ESIA. Two biodiversity reserve areas have been identified. One in the east of the concession covers an area of 986 ha and consists primarily of white sand savanna forest which represents an unusual forest type over the whole concession and supports a unique flora and fauna. Even though two kapvaks are scheduled for future felling within this area the reserve will be protected by a 50 m buffer and the integrity of the reserve will be maintained and protected from logging or other forestry or non-forestry activities. A second area (covering 450 ha) has been identified for preservation along the southern boundary of the concession bordering the Forest Service Reserve of Tibiti Soela which encompasses an area of High Conservation Value Forest identified by the company. The total area identified as biodiversity reserves is 1,436 ha or 6.6% of the gross concession area. Biodiversity area boundaries will be cut in active operations areas and signs placed at all road crossings.

HCVF UPDATE

A full HCVF assessment was conducted in 2014. This current update to the HCVF revisits the outcome of the application of criteria and refines the definition and geographical extent of HCVs. According to recent monitoring information and further engagement with the local community of Josefedorp it is concluded that the bio-physical HCVs remain in place (criteria 1.1, 1.2, 1.3 and 4.1). However, the social criteria are refined since the inhabitants of the community do not habitually move throughout the concession and use the forest resources and if they do it is confined to an area close by to the community (estimated at 15 km distance). Thus the HCV linked to criterion 5.0 is redistributed to an area to the north-west of the concession area within a very approximate utilization zone in a range of 15 km from the main village settlement.

Generic HCV	Description/Location	Location
1.1 - Protected Areas	250 m buffer in special protected forest	Along the Tibiti River
	1 km buffer along the forest reserve	Along the border of Tibiti Soela
	Biodiversity reserve	See map
1.2 - Critically Threatened/Endangered Species	Presence of Class I RTE species	Presumed all over
	Presence of Class II RTE	Presumed all over
1.3 - Endemic Species	Presence of Class II endemic	Presumed all over
4.1 - Forests critical to water catchments	Catchment drainage	Main creeks draining into Tibiti R
5.0 - Forests fundamental to meeting basic needs	Range of NTFP plants and animals	Restricted to a zone in the NW

Management and monitoring measures for HCVF 2019 remain the same and are summarized below.

Generic HCV	Description	Management measures	Monitoring measures
1.1 - Protected areas	Buffers and biodiversity zones	Mapping of protected area boundary Incremental marking of boundaries Prohibition of logging activities in protected areas	Boundary marking Encroachment Permanent Sample Plots
1.2 – RTE and endemic species	Presence of Class I/II species	Record signs of Class I and II species in inventory Enforcement of hunting policy Liaison with research institutes	Wildlife monitoring Report on signs of Class I/II species in inventory Enforcement of hunting policy Logging register
4.1 - Forests critical to water catchments	Catchment drainage	RIL No logging in creek buffers Water quality assessment Consultation with local communities	RIL Maintenance of creek buffers Water quality assessment Consultation with local communities
5.0 - Fundamental to meeting basic needs of local communities	NTFPs – plants and animals	Access for collection and hunting by communities allowed Resource areas mapped/NTFPs recorded NTFPs not collected by Soekhoe Reduced Impact Logging	NTFPs recorded Post-harvest checks Community engagement

Recent monitoring results (in separate field monitoring reports produced by the FME) indicate that none of the bio-physical HCVs is diminished or threatened by forest management activities. PSPs are being established throughout the concession to monitor natural and post-harvest tree growths, detect any biodiversity and ecological changes as a result of forest management and prescribe appropriate management and silvicultural measures to ensure sustainable yield, regeneration and ecological status of the harvested forest. Biannual monitoring of the PSP programme assesses establishment of PSPs, adherence to protocols and adequacy of data analysis.

INTACT FOREST LANDSCAPES

Intact Forest Landscape (IFL) is defined as a territory within today's global extent of forest cover which contains forest and non-forest ecosystems minimally influenced by human economic activity, with an area of at least 500 km² (50,000 ha) and a minimal width of 10 km. According to Global Forest Watch maps Suriname is one of several countries where IFL exists.

According to FSC Motion 65 and the FSC Advice Note ADVICE-20-007-018 V1-0 until such time as the National Forest Stewardship Standard or Interim National Standard becomes effective in each country the following conditions shall apply regarding Intact Forest Landscapes:

1. Management operations within IFLs, including harvesting and road building, can only proceed if they do not impact more than 20% of Intact Forest Landscapes within the Management Unit (FMU); and
2. IFLs are not reduced below the 50,000 ha threshold in the landscape.

The FMU intersects with within a contiguous IFL block of 55.9 million ha according to official IFL data from 2016² (source <http://www.globalforestwatch.org/>). Of this area approximately 1,190 ha is located within the FMU leaving approximately the whole of the landscape block untouched. Therefore, whatever impact may occur within the FMU the total IFL block in the landscape will remain above the 50,000 ha threshold (condition #2 in §9.2).

Within the FMU the target IFL area to be preserved from impact by forest management operations is 80% of the IFL within the FMU or 952 ha (before taking into account harvesting between 2013-2016). Since the condition for IFL is presented on an areal basis the extent of impacts will be assessed using the same parameter. Projections and the FME IFL strategy will also be adjusted as such time as a National Forest Stewardship Standard or Interim National Standard becomes effective.

TRAINING AND MONITORING

The training plan will focus on building awareness, knowledge and skills with delivery approach tailored to the objectives and target recipients. Internal training delivery will be based on the company's protocols and operating procedures. External training will be delivered according to the training institutions' curricula. Measures for monitoring the forest are described in the FME's Monitoring Program and periodic monitoring reports are available in separate documents held in the FME office.

PERMANENT SAMPLE PLOTS

In the original plan over the cutting cycle of 25 years it was planned to establish a total of 24 PSPs (at an intensity of approximately 0.1% in line with the recommendation of Alder and Synott for forest areas up to 50,000 ha) phased in over the cycle at a rate of one PSP per year. Of the 24 PSPs six were to be located in reserve areas as unlogged controls and 18 in post-logged areas. Since the cutting cycle has been revised to 20 years the new target for PSPs is 20. Of this number, 6 have already been established and enumerated and 2 further have been identified for measurements in 2019. The earlier strategy of locating PSPs in the different forest types according to the extent of each type remains. PSPs will be established each year by GPS in the field according to the resources available and the progression of harvesting across the concessions.

² The global IFL for 2016 covers less area than 2013 and there are some minor adjustments relevant to the FMU; areas have therefore been adjusted from the previous year