
Summary Report of the Management Plan

***PT. Pusaka Agro Lestari
Regency of Mimika
Papua Province
Indonesia***

Prepared by
Management team,
PT Pusaka Agro Lestari,
Regency of Mimika, Papua Province, Indonesia
November, 2011

Executive Summary

PT Pusaka Agro Lestari, subsidiary of Noble Plantation Pte Ltd is planning to develop new planting at at Kiyura Village, West Mimika District, Papua Province, Indonesia. The development includes own estate, plasma smallholder scheme and a 60mt/hour palm oil mill. The parent company is a member of RSPO since December 2011. Currently, the management of oil palm plantation of PT. Pusaka Agro Lestari was preparing to start new development and this summary report is prepared by the management as a summary of the proposed new development and to comply with RSPO New Planting Procedure (NPP). This is to ensure that the new development operation is sustainable in the long term with consideration given to the fair dealing with the internal and external stakeholders.

PT Pusaka Agro Lestari (PT PAL) completed the High Conservation Value identification and Social Impact Assessment through engaging RSPO approved assessors from Bogor Agriculture University. The assessment result shows that there is no primary forest in the proposed location. Peat area identified thorough the assessment and soil survey is set aside for conservation. Compensation process was activated using the process of Free Prior Informed Consent with the local community and customary landowners. System to handle land compensation is incorporated with the FPIC principles. Negotiations were facilitated by the local government administrators representing each community group, village head, customary leaders, customary chief and chief of each tribe.

The result of the HCV and SEIA assessment are documented and summarized in our HCV and SEIA Summary Report. This identification is taken into consideration to develop PT PAL's management plans. The management plan was developed through discussion among the management team of the proposed new development.

Reference Documents

SEIA and HCV assessment report: SEIA and HCV Assessment of PT Pusaka Agro Lestari dated August 2011 was conducted and prepared by RSPO approved assessors from Bogor Agriculture University, Bogor, Indonesia.

Environmental Impact Assessment (AMDAL - Analisa Mengenai Dampak Lingkungan) report dated December 2007.

Land permits, land use right (ownership document), land release and compensation record.

Landscape and property level maps, compensation maps, HCV map and project development planning map.

Indonesian HCV toolkit 2008

Indonesia Government Regulation related to conservation management and monitoring, IUCN Redlist, CITES

List of Legal documents and regulatory permits related to the area assessed.

PT. Pusaka Agro Lestari obtained area licenses issued in 2007 and other details of legal documents as follows:

1. Decree of The Mimika Regent No 36 of 2007 dated June 21st 2007 concerning the licensing areas for Oil Palm Plantation Development Purposes on behalf of the PT. Pusaka Agro Lestari;
2. Decree of The Mimika Regent No 105 of 2007 dated December 7th 2007 concerning the Environmental Feasibility on Plantation Activities and Palm Oil Processing Plant of PT. Pusaka Agro Lestari (EIA);
3. Decree of The Papua Province Governor No 143 of 2008 dated December 30th, 2008 concerning plantation business permit;
4. The Decree of Ministry of Forestry No : SK.611/MENHUT-II/2009 dated October 5th 2009 on the release of Convertible Production Forest covering an area of 38,159.60 hectares located in Mimika Regency, Papua Province for the cultivation of oil palm plantations purposes on behalf of PT. Pusaka Agro Lestari;
5. Decree of The Chief of National Land Agency No 11/HGU/BPN RI/2011 concerning approval of HGU on behalf of PT Pusaka Agro Lestari on the land in Mimika Regency, Papua Province;
6. Certificate of Land use right: HGU No 26.11.00.00.4.00007, 26.11.00.00.4.00008, and 26.11.00.00.4.00009 covering an area of 35,759 Ha.

Location maps

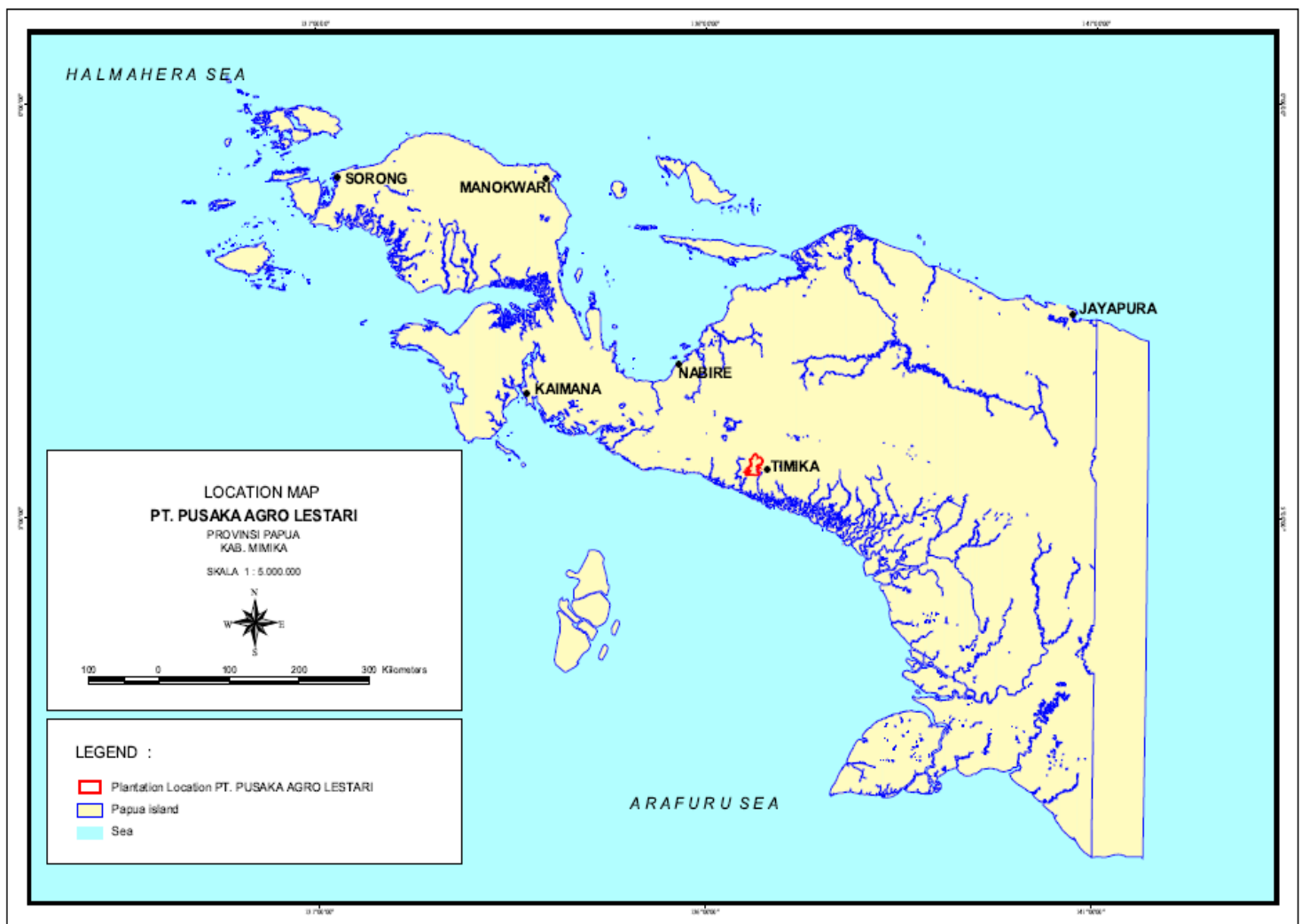


Figure 1: Location map of PT. Pusaka Agro Lestari project area in Indonesia.

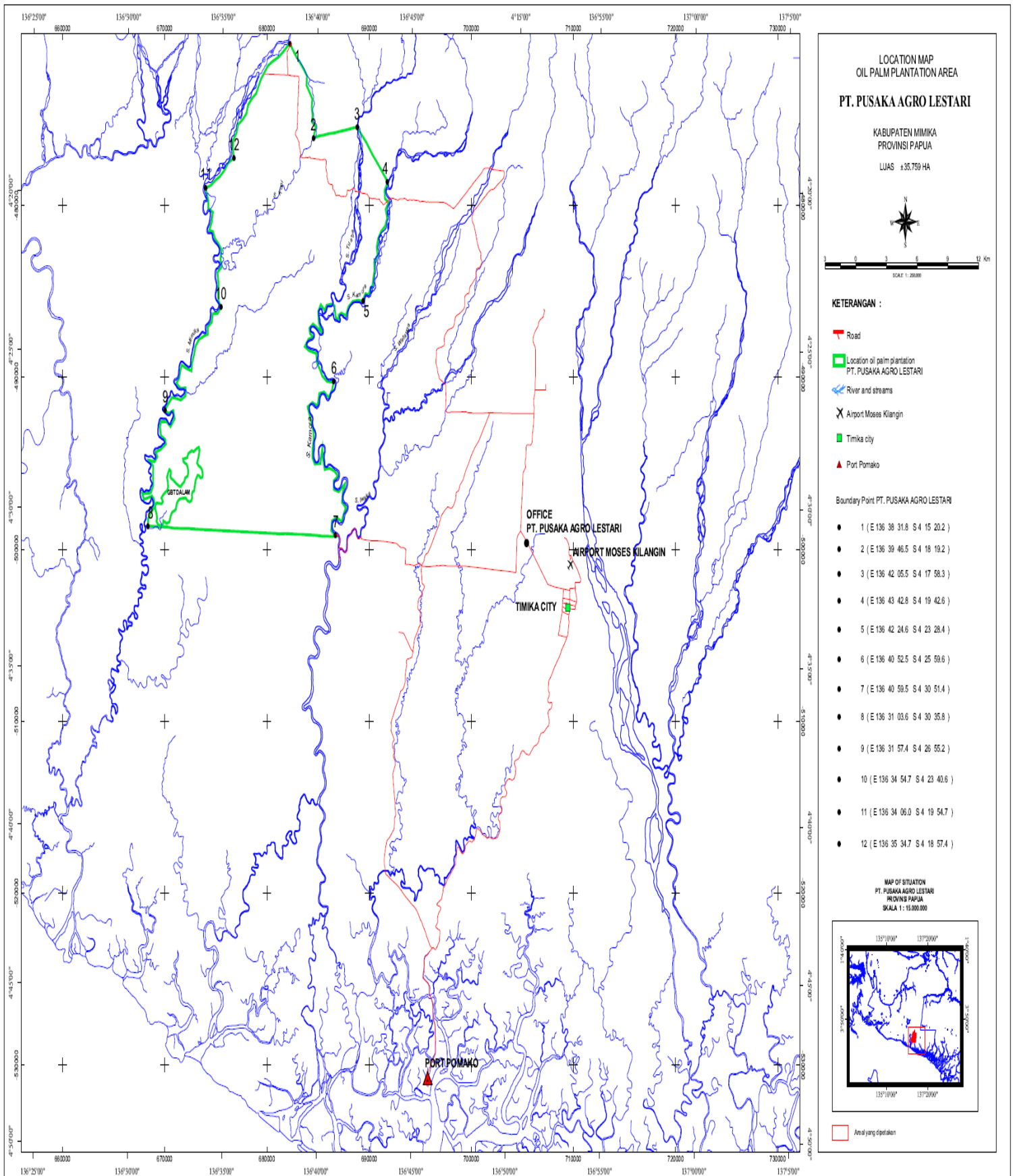


Figure 2: PT PAL boundary with GPS reference.

Area of new planting and time-plan for new plantings

PT Pusaka Agro Lestari is planning to develop the proposed new planting in accordance to the process of RSPO New Planting Procedure. The new planting documents were developed based on the RSPO requirement for new planting and in compliance to the Indonesia regulation for new development. The planting process will commence after the RSPO NPP process is completed and will continue through 2017. The development will be carried out in stages for better management. The proposed area is within the land use right (Hak Guna Usaha). The company has activated the land compensation process through Free Prior Informed Consent process to obtain agreement from the owners of the land. Documents and mapping related to the land compensation process is available and documented. Based on the RSPO approved HCV and SIA assessors, the proposed area do not contain primary forest. Conservation area identified during the assessment will be set aside for protection and conservation.

The area of 30,817.19 ha (Table 1 below) is to be developed over a period of 6 years from 2012 onwards. Initial development will began at PAL 1 Estate and progress to other estates. This development will comply with the HCV and SEIA recommendations by the RSPO approved assessors from Bogor Agriculture University, Indonesia. The summary report of the assessment and our management plans was checked and verified by auditors from BSI (British Standard Institute). The HCV and SEIA parameters recommended by HCV and SEIA assessors are being overlaid on to the PT PAL master plan map, which will be used as a guide for the ground operations accordingly to achieve the implementation of the recommendation, management and monitoring in compliance to RSPO NPP and P&C requirements. The proposed planting plan map is shown in figure 3 below.

The initial planting in 2012 is targeted to be low at smaller area of 600 ha to anticipate the limited availability of the planting material and considering the fact that this is a new development and limited availability of skilled manpower at this location. Attention will be given to carry out on the job and formal trainings to ensure the personals involve in the new development pick up the knowledge and skill. Subsequently bigger area is planned in the following year. The planting will be planned to be throughout the year as the rainfall in this area is well distributed. At the same time the construction of infrastructure will be carried out gradually. This report encompasses the company's responsibilities, work plan and importantly enshrines the HCV and SEIA compliance parameters as depicted in the RSPO NPP.

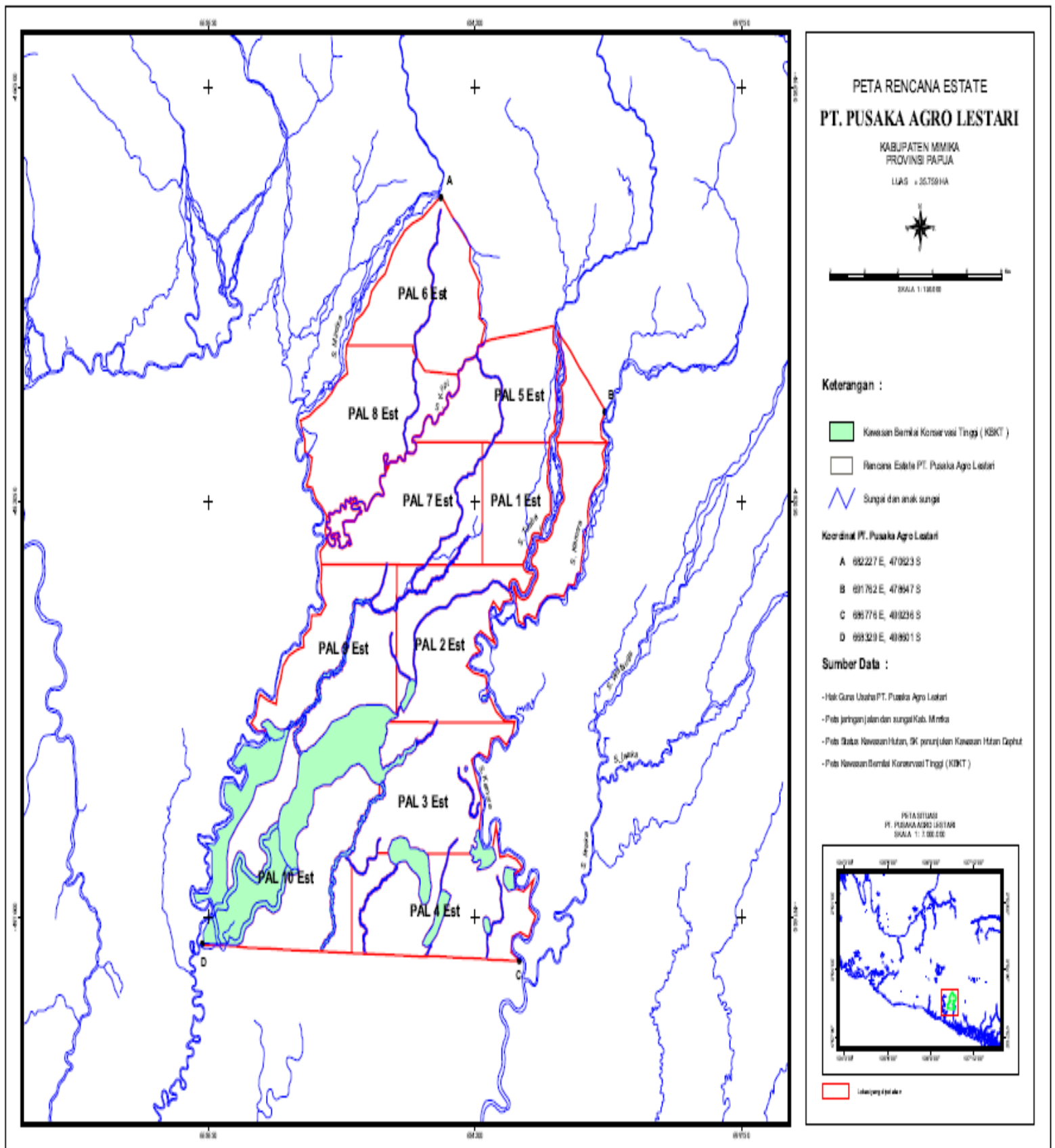


Figure 3: Map shows PT PAL initial planting plan beginning from PAL 1 estate

Land Clearing and Planting Plan

Table 1 below shows the planting plan for the proposed new development.

Table 1: PT Pusaka Agro Lestari (Area Statement and Development Schedule)

	Description	Year	Estates	Plasma	Total	%
A.	Total Concession(Forest Release)				38,159.60	
	Area - BPN Survey				37,213.00	
	<i>Less-Rivers Kopi & Tuaba Buffer by BPN</i>				709.00	
	<i>Less- Lake Kaya by BPN</i>				745.00	
	Total HGU (BPN RI)				35,759.00	100.00%
B	<i>Less- HCV area - River Buffer</i>				880.36	2.46%
	<i>Less- HCV area - Peat</i>				1,509.35	4.22%
	<i>Less- HCV Area - Sago</i>				1,541.73	4.31%
	<i>Less- HCV Area Sacred place (Keramat)</i>				10.37	0.03%
	<i>Less- Inrastructure & Roads etc</i>				1000.00	2.80%
Balance Plantable					30,817.19	
Plantable Area Own Estate (Inti) and Plasma			24,654	6,163	30,817.19	
C.	Land Clearing - Calendar					
	<i>0 New Planting</i>	2011	-	-	-	-
	<i>1 New Planting</i>	2012	1,200	300	1,500.00	4.86%
	<i>2 New Planting</i>	2013	3,500	900	4,400.00	14.28%
	<i>3 New Planting</i>	2014	3,800	1,000	4,800.00	15.58%
	<i>4 New Planting</i>	2015	5,700	1,300	7,000.00	22.70%
	<i>5 New Planting</i>	2016	5,700	1,600	7,300.00	23.70%
	<i>6 New Planting</i>	2017	4,754	1,063	5,817.19	18.88%
Total - New Planting			24,654	6,163	30,817.19	100.00%
C.	New Planting- Calendar					
	<i>0 New Planting</i>	2011	-	-	-	0.00%
	<i>1 New Planting</i>	2012	480	120	600.00	1.95%
	<i>2 New Planting</i>	2013	3,500	700	4,200.00	13.63%
	<i>3 New Planting</i>	2014	4,000	800	4,800.00	15.58%
	<i>4 New Planting</i>	2015	5,500	1,100	6,600.00	21.41%
	<i>5 New Planting</i>	2016	5,500	1,100	6,600.00	21.41%
	<i>6 New Planting</i>	2017	5,674.19	2,343	8,017.19	26.02%
Total - New Planting			24,654.19	6,163	30,817.19	100.00%

SEIA and HCV management and Planning Personnel

Organizational information and contact person

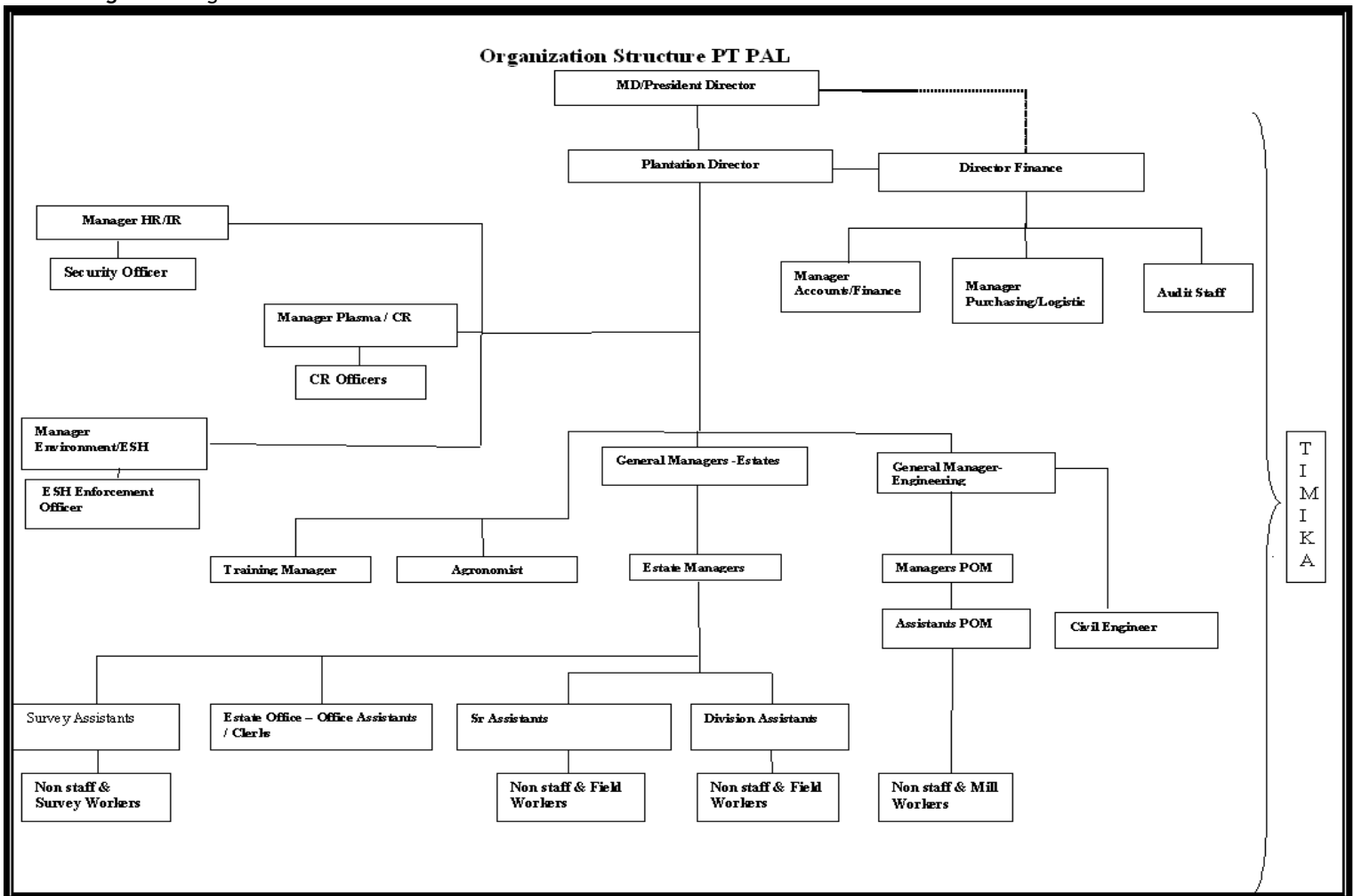
Company Name	: PT. Pusaka Agro Lestari
RSPO Membership Number	: 1-0108-11-000-00
Date of Establishment	: Notary Darby, SH No.16 date on July 9, 2004
Capital Status	: Foreign Investment (Penanaman Modal Asing - PMA)
Taxpayer Notification Number	: 02.368.791.6.077-000
Company Address	: Jl. Sultan Iskandar Muda Kav. V-TA Wisma Pondok Indah 2 # 17-02 Jakarta Selatan 12310 Indonesia.
Type of Business	: Oil Palm Plantation
Contact person	: Mr. Wijoyo Yasa (WijoyoYasa@indopalmoils.com) Telephone: +622129245600
Geographical Location	: 136° 36' 20.60" - 136° 38' 24.00" East 04° 22' 25.30" - 04° 29' 11.33" South
Surrounding Entities	: North : Protected Forest South : Kamora River, PT. Merdeka Timber, PT Merdeka Plantation. West : Mimika River and PT. Alas Tirta East : West Mimika and Far East Mimika District.
Area of New Planting	: ± 35,759 ha
Time-plan for New Planting	: 2012

Personnel involved in planning and implementation

Figure 4 below shows the organization structure of PT PAL new development. The plantation structure will be ±3300 ha per estate consisting of estate divisions of 750 ha each. This size is chosen for better management and supervision, so that the best practices and skills can be instilled efficiently from the beginning. The work force will be beginners and inexperienced, thus major effort is needed from the management to raise the oil palm cultivation, maintenance, harvesting, processing, and supervisory and management skills. The Estate Manager is to oversee the estate, whilst his subordinates i.e. Assistant Managers will be in charge of estate

divisions. Agricultural procedures will be introduced gradually and followed by standard operating procedures on the field operation and management activities progressively.

Figure 4: Organization Chart



The manpower for the new development such as field staff, non-staff, operators and field workers will be trained progressively in the Plantation Training School which will be set up in the plantation.

Personnel involved in planning and implementation

Name	Position	Entity
Mr. Andries Lourens Du Pisani	President Director	PT PAL
Mr. Prabakaran	Plantation Director	PT PAL
Mr. Wijoyo Yasa	General Affairs Director	PT PAL

Position	Responsibility	Entity
President Director	Coordinate and facilitate sustainable Plantation establishment in compliance to Indonesian law. Formulating company policies. Setting objective, building goodwill and company culture	PT PAL
Plantation Director	New development estates/mills etc., establish upkeep /production system. Sustainable plantation operations. Establish effective operation coordination.	PT PAL
Director of Finance	Finance, accounts & tax controlling, monitoring & reporting including its legality.	PTPAL
General Manager (Estates)	Plan, coordinate, implement, and control all operation on the ground.	PT PAL
General Manager Engineering	Palm oil mill construction, processing, bulking and CAPEX Engineering projects.	PT PAL
HR Manager	HR policy & SOP. Salary & remunerations. Industrial relations matters & Corporate Social Responsibility.	PT PAL
Plasma/CR Manager	Establish & monitor all plasma development operations. Community Relations (CR).	PT PAL
Accounts/Finance Manager	Implement & control all account /Finance requirement as directed by Finance.	PT PAL
Purchasing/Logistic Manager	All purchases and logistic are organized efficiently to support operations & others target / quality compliance.	PT PAL
Estate Manager	Plan, implement & control new development/ mature operations on the estate.	PT PAL
Palm Oil Mill Manager	Palm Oil Mill Operations, crop reception, process control, maintenance, mill by - product & waste management.	PT PAL
Environment/ESH Manager	Establish sustainability for the development. Monitor conformance. Training & Audit.	PT PAL
Training Manager	Estate practice skills and competency development.	PT PAL
Agronomist	Inspect nursery/field palm growth, nutrient deficiency & fertilizer recommendation. Pest & disease surveillance monitoring, prevention & controls.	PT PAL
Security Officer	Coordination of plantation system & safeguard company assets.	PT PAL
Community Relation Officer	Built cordial relation with the people and government for smooth plantation development & operations including successful plasma/cooperative establishment.	PT PAL
Audit Staff	Verify work completions before payments.	PT PAL
ESH Enforcement Officer	Compliance of environmental, safety and health standards.	PT PAL
Survey Assistant	Field survey requirements are fulfilled accurately & timely.	PT PAL
Office Assistant	Accounts, administration, payroll, purchasing /store & assets & depreciation schedules.	PT PAL
Estate Senior Assistant	Nurseries, new planting, mature operations, production, FFB evacuation, workshop & security.	PT PAL
Division Assistant	Nurseries, new planting, mature operations, production, FFB evacuation & security.	PT PAL
POM Assistant	Palm Oil Mill processing, maintenance & quality control.	PT PAL
Civil Engineer	Civil plans/drawings, Supervise construction & other infrastructure.	PT PAL

Stakeholders to be involved

- Ministry of Environment.
- Ministry of Forestry.
- Ministry of Agriculture.
- National Land Agency (Badan Pertanahan Nasional).
- Central, Provincial and Local Government and Regulatory Departments.
- Village Representatives of Kiyura, Kiyura Mountain (Kiyura Gunung), and Iwaka.
- Clan Representatives of Kamora, Kiyura & Kiyura Mountain (Kiyura Gunung).
- Customary Leaders.
- Employees.
- Plasma Farmers Group.
- Religious Representatives.
- Local Social and Environmental NGO and Research Institutions.

Summary of the SEIA Management and Mitigation Plans

The existence of PT. Pusaka Agro Lestari in West Mimika district, Mimika regency will certainly generate positive and negative impact on society in the villages around the location area of company in accordance with the existing phase. Based on the interviews and field observations, the impact could come from three phases of the company's development (the initial production phase, peak production phase and the final production phase). PT. Pusaka Agro Lestari is included in the initial production phase during the new development stage. It is indicated by the activities of the management that focus on legal aspects of business, socialization, communal land acquisition from the sub-tribe Iwaka, Kiyura and Kiyura Gunung. This is being addressed through FPIC process which includes stakeholder meeting, discussion with communities and involvement of government and NGO during stakeholder meetings. Stakeholder meeting was carried out on 18th and 20th August 2011 attended by 37 communities, government representative and social NGO from Kamoro Indigenous People Society (LEMASKO - 'Lembaga Adat Kamoro Timika Papua'). All other aspects of new development such as nursery, land clearing, planting, recruiting employees, office development, housing and other infrastructure, plant construction has not commenced.

Palm plantation development plan of PT. Pusaka Agro Lestari will provide positive and negative impacts on the environment and communities around the plantation. Positive impacts or benefits to society in general associated with the availability of employment and business opportunities, conditions and situation of the village to become advanced, better accessibility and the construction of village infrastructure. While the negative impacts such as increased pollution from land clearing, use of chemicals, fertilizer and surface soil erosion, increased dust, social conflict and others could potential take place.

Initial Socio-Economic mitigation and enhancement plans

1. Increase community participation as a key stakeholder in the management of the PT. Pusaka Agro Lestari to encourage sustainable management of plantations and increase the sense of ownership of the people around the plantation through constant socialisation and plasma development.
2. PT. Pusaka Agro Lestari to provide assistance to communities that aimed to empower the community in the long run through partnership. In the development of Community Development Program (CD) / CSR it will involve community and village officials so that the sense of the ownership to the plantation of PT. Pusaka Agro Lestari is maintained and stakeholders are consulted in the CD/CSR programme development and decision making process.
3. Company will begin to be managed as a community strategy or "pagar kebun", to increase community responsibility in securing the investment of the PT. Pusaka Agro Lestari. Relocation of some housing estates to the north region is an alternative solution that could minimize the possibility of land encroachment by other tribes.
4. Improving administrative systems related to legality, licensing, and other important documents in the process of ensuring legal compliance is achieved throughout the plantation development and continuously complies.
5. Necessary clarity of concept / plasma systems, rules, organization and realization of the plasma is updated and socialized among community, so that the conflict does not arise in the future.

Mitigation plans to minimise negative social impacts and manage the implementation.

Identification of Impact and management plan						
Core Issues	Activities	Other issues	Action plan	Strategy plan	Implementation	Time frame
Resolving the tenure of customary rights issues around the new planting	Documentation of the processes of land legislation.	<ul style="list-style-type: none"> To ensure that the existence of PT PAL land ownership is acknowledged by all parties. 	<ul style="list-style-type: none"> The Company has activated and paid compensation to the owners of customary land. The customary land has been excluded from the land title by the Department of Forestry in 2009. The company already has the legality of land ownership (HGU). 	<ul style="list-style-type: none"> Organize and document all the legal issues and documentation processes, permits of the plantation, land title, voluntary compensation issues and other documents related to the aspects of legal compliance. 	<ul style="list-style-type: none"> Documentation of all the requirement of permits and other legal requirements. 	2011
Develop stakeholder communication and networking with all interested stakeholders.	Conduct regular meetings with stakeholders and coordination with religious leaders such as bishops and priests	<ol style="list-style-type: none"> Types and characteristics of diverse stakeholders. Interests and requirement of each stakeholder varies considerably. 	<ol style="list-style-type: none"> Communication between PT PAL and stakeholders has been established. The majority of the stakeholders support the new development of PT. PAL. 	<ol style="list-style-type: none"> Make a routine schedule. Identify issues to be discussed for each meeting. Do documentation of the results of the meeting. Conduct follow up meeting. 	<ol style="list-style-type: none"> Development of the communication and coordination between the PT PAL and all stakeholders. Establishment of a common vision and understanding between PT PAL and existing stakeholders. 	Beginning 2011
	Socialization of the PT PAL new development with customary community.	<ul style="list-style-type: none"> Community does not understand the concept of development to be undertaken by PT PAL, especially the pattern of cooperation. 	Communities open for any discussion with PT PAL.	Conduct meetings regularly, especially with the tribe leaders, the head of the sub tribes, village leaders and villagers, community leaders and land owners.	Mutual agreement between the community and the company.	2011
	Development of plasma smallholders' scheme on the former customary right areas.	Community wants to have emotional ties to the former location of customary rights.	<ul style="list-style-type: none"> All indigenous peoples (Iwaka, Kiyura and Kiyura Mount) support the development of PT. PAL Location of the plasma smallholder is built on the former site of customary rights. 	The plasma smallholder is developed on the former site of customary rights.	<ul style="list-style-type: none"> Identification of potential sites for the plasma smallholder on the former customary rights sites. 	2011
Improving the quality of public education.	Making educational development plans in accordance with	<ol style="list-style-type: none"> Existing educational facilities are with limited facility. Dropout rate is high enough. 	<ol style="list-style-type: none"> PT PAL's commitment is high enough. There are people who have the motivation and potential in continuing their education to a 	<ol style="list-style-type: none"> To bring in education consultant. Cooperate and establish communication with the Department of Education. 	<ul style="list-style-type: none"> Document review of the quality of education development plan for the community in the village of 	2012

Identification of Impact and management plan						
Core Issues	Activities	Other issues	Action plan	Strategy plan	Implementation	Time frame
	community needs.	c. Community interest in education is quite variable.	higher level.		Sima.	
	Provide scholarships for students who excel.	a. How to ensure that the scholarships awarded can be effective and well targeted.	a. There are participants who have potential and a strong motivation for continuing education.	a. Creating a detailed plan of granting scholarships. b. Perform selection by involving the parties concerned.	Increased quality of public education.	2012
Improved quality of public health.	Identify health needs in lwaka and Kiyura villages.	a. Awareness and public knowledge about health is still low. b. Limitations of medical personnel.	a. To ensure facility and corporate networks in the field of health is adequate. b. There is potential for collaboration with partners and other third parties.	a. Create cooperation with Public Health / Community Health Center and other third parties. b. Optimizing health care personnel's of the company.	a. The decline in the occurrence of infection / disease. b. Increasing life expectancy of the community.	2012
	Do counseling, health checks and treatment to the community.	a. Awareness and public knowledge about health is still low. b. Limitations of medical personnel. c. Remote locations (Access is limited to the Kiyura village).	a. The company has sufficient capabilities in providing adequate health. b. There are many other interested parties who can be invited to cooperate.	a. Determining the most needed assistance by the community. b. Cooperate with local health department.	a. Increased awareness and knowledge of the community against dangerous diseases. b. Increased quality of public health.	2011
Improve socio-economy of communities.	Conduct analysis of economic potential in the vicinity of PT. PAL.	a. Required in-depth study. b. Require study on various aspects of economic opportunities.	A. Potential economic opportunities. b. The company is committed to provide guidance.	a. Conducting Focus Group Discussion with the community and facilitated to explore the economic potential that can be developed. b. Conduct studies involving the consultants from the field of community economic development.	Document the potential economic developments made by the company for the benefit of the communities around the PT. PAL.	2011-2012
	Establish sample agriculture development plots.	a. Need intensive training and support on good agriculture practices.	a. Meeting the basic needs of local communities. b. The market potential is quite high for agricultural output	a. Develop institutional and community level organizations. b. Conduct training on the development of good agriculture practice. c. Mentoring sustainable practices.	a. Opportunity for optimal revenue for the community is developed.	2011-2012
	Guidance and training in order to create alternative potential	a. Community lack of skill and business knowledge. b. Create potential business opportunity based on community skill	a. There is potential for joint agriculture cooperation i.e. plasma. b. There are potential opportunity to enhance the	a. Carry out mentoring. b. To conduct entrepreneurship awareness. a. Facilitate capital requirements wherever possible. c. Provide awareness on sustainable	• Emergence of alternative income opportunities and rise in income for the community	2011-2014

Identification of Impact and management plan						
Core Issues	Activities	Other issues	Action plan	Strategy plan	Implementation	Time frame
	livelihood and business opportunities.	and knowledge.	competency level of the surrounding community and community-based efforts.	production and marketing.		
	Develop Plasma smallholder scheme.	a. Community's understanding of the concept of partnership through the plasma smallholder scheme is still lacking.	a. There is support from the community. b. Relatively small number of households are involve. c. Plasma development given support by all parties. d. There are already many successful plasma partnership.	a. Conducting intensive meetings to disseminate information about the pattern of plasma cooperation particularly with respect to area, rules and necessary requirements. b. Involving the community, traditional leaders, village leaders and other stakeholders. c. Conduct awareness and disseminate information on plasma to ensure good Cooperation.	a. Documentation of the location, size and status of the land suitable for plasma for the potential plasma land development plan. b. The occurrence of understanding and agreement between the company and community for the plasma project development.	2011
Environmental Management Program	Conduct awareness activities, training and socialization of the 3R (Reduce-Reuse-Recycle) concept to the community.	Community awareness of the 3Rs is still lacking. b. Difficulty in changing the community's perception.	a. Company's commitment to the principles of sustainability operation/activities.	a. Increase awareness among workers and communities to ensure the principles of sustainable operation/activities.	a. The realization of sustainability principles together with community development efforts.	2012
	Develop Mitigation plan for the potential water pollution.			a. Conduct waste management and handling awareness training at regular intervals. b. Improvement of waste treatment/management technologies. c. Monitoring the quality of waste water/effluent at final outlet.	a. Liquid wastes/effluent that within the local regulation and quality standards.	Annually once the Palm Oil Mill operation began.

Environmental management and monitoring plans in the area of PT PAL

PT PAL management will establish conservation areas as per recommendation from the RSPO approved assessors by refereeing to the SEIA, SIA and HCV assessment reports. The management plan includes monitoring of the conservation areas and to mitigate impacts such as erosion, air quality issues, water quality issues and others as per below.

No .	Type of Impact	Source of Impact	Objectives	Management/mitigation and Monitoring Efforts	PIC	Target date
1	Erosion	Land clearing and soil preparation. Physical building construction.	<ul style="list-style-type: none"> Prevent the sediment material in the outlet drainage. Prevent the obstruction in the outlet. Prevent the sedimentation in the water ways. 	<ul style="list-style-type: none"> Desilting/Cleaning sedimentation in the drainage/ water-channel. Grass/ trees and mucuna planting in the shoulders of the road/road side and new planting area. Built adequate run off points. Construction of silt pit. 	Estate and Mill Management ESH Manager	Beginning 2012
2	Impact to the Wildlife and plants	Land clearing and soil preparation for new development.	To carry out efforts to ensure the wildlife and plants protected during operation.	To enclave all the HCV and conservation area identified in HCV assessment. Vegetation planting around the mill , housing, riparian with the trees and fruits plants and built the warning sign board about the wildlife and plants in the protected area. Educate and create awareness on animal protection socialize existing laws on hunting. Patrolling by security.	Estate and Mill Management ESH Manager	Beginning 2012
3	Air and noise pollution	Vehicle movement Mill operation Estate operation	<ul style="list-style-type: none"> Monitoring/Reducing vehicles in the settlement road. Vehicle are maintained regularly and checked to reduce pollution. 	<ul style="list-style-type: none"> Planting and create green belt area with the trees with wider open canopy as a curtain protector and reduce noise and dust. Mill and estate to follow the requirement of regulations and carry out monitoring. 	Estate and Mill Management ESH Manager	Beginning 2012
4	Decreasing of the water quality	Factory operation Estate operation	To ensure water ways are protected.	<ul style="list-style-type: none"> Effluent pond building. Land Application of POME. Wastewater will be channeled and collected away from waterways. Conduct monitoring of pollution source and mitigate. Preventing the decreasing of river body quality. The quality of water will be monitored biannually. 	Estate and Mill Management ESH Manager	Beginning 2012
5	Soil disturbance.	Soil sedimentation and erosion due to new development.	Land clearing will be carried out on stages block by block. No planting in the peat and conservation area.	<ul style="list-style-type: none"> Grass and trees planting in the shoulders of the road. Planting of mucuna. 	Estate and Mill Management ESH Manager	Beginning 2012

Management and Monitoring Plan of HCV Areas

HCV management activities required in the area of PT. Pusaka Agro Lestari in order to maintain and enhance HCVs, including:

- Marking boundary (river riparian, and buffer of Kaya Lake).
- Maintenance of boundary marks.
- Protection of flora and fauna.
- Maintenance of the riparian areas.
- Outreach to community.
- Employees Training.
- Preparing/improving SOP of HCV areas management.
- Organisational capacity improvement.
- Coordination with relevant agencies.

Monitoring

Here, monitoring means to monitor the values of HCVs continuously managed. In the context of HCVs, this area is protected and not utilized as a production area, so its function can be maintained and guaranteed. To ensure the integrity of this area, there should be periodic monitoring as an input in the improvement of management techniques. HCV area is shown in the **Figure 5** below. Indicators monitored on each HCVs in the PT. Pusaka Agro Lestari are presented in **Table 2** below. Overall the management plan involve protection of the biodiversity and HCV area and enhancement. This is applicable to all the HCV area identified by the assessors and similar to all the areas.

Table 2: HCV Monitoring Indicators in The Area of PT. Pusaka Agro Lestari

HCV Area	Indicator Monitored
HCV1.1. Regions that have or provide support functions of biodiversity to protected or conservation area.	<ul style="list-style-type: none"> • The intensity of the disturbance to the area of river riparian, including the danger of fire. • Flora species diversity and density. • Diversity and abundance of fauna species. • Existence of Riparian Area.
HCV1.2. Endangered species.	<ul style="list-style-type: none"> • Density of endangered species of flora and fauna.
HCV1.3. Regions that have function as habitat of populations of threatened species, restricted distribution or protected that will survive.	<ul style="list-style-type: none"> • Intensity of the disruption of river riparian, including the danger of fire. • Diversity and density of species of flora and fauna.
HCV2.3. Regions that contain representative populations of natural species that will survive.	Same as HCV 1.3 above.
HCV3. Regions that have rare or endangered ecosystems.	<ul style="list-style-type: none"> • Intensity of the disturbance to river riparian including the danger of fire. • Diversity and density of species of flora and fauna. • Height of peat water levels and existence of peat depth.
HCV4.1. Area or ecosystem that has important function as a provider of water and flood control for communities at downstream.	<ul style="list-style-type: none"> • Intensity of the disturbance to river riparian, including the danger of fire. • Diversity and density of species of flora and fauna. • Existence of Riparian Area.
HCV6. Regions that have important functions for the cultural identity of local communities	<ul style="list-style-type: none"> • Intensity of the disturbance to the areas containing HCV6

HCV CONSERVATION MANAGEMENT PROGRAM

No	HCV Area	Distance (m)	Buffer Zone / Riparian area width(m)	Total Area (ha)	HCV Criteria	Management Program					
						Purpose	objective	Program	Method	PIC	Target Date
1	Riparian Anak S.Mimika Nata	10730	25	53.65	1.1; 4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area management and monitoring	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
2	Riparian Danau Kaya	15990	200	308.02	1.2; 1.3; 2.3;	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
3	Riparian S. Dataura	2360	25	2.36 11.82	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012

4	Riparian S. Kamora Kecil	8610 and 9380	25 and 50	43.06 and 110.73	1.2; 1.3; 2.3; 4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
5	Riparian S. Kaya	2050	50	20.48	1.2; 1.3; 2.3; 4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
6	Riparian S. Awokawia	5390	25	26.96	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
7	Riparian S. Iripare	3820	25	19.08	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent	Estate Manager	December

						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	poles. Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Assistant Estate Manager Estate Assistant	2013 December 2012
8	Riparian S.Jimiki	3490 and 10650	25and 50	17.44 and 106.52	1.1; 1.2; 1.3; 2.3; 4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
9	Riparian S.Jimiki Epe	5490	25	27.47	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
10	Riparian S.Kerapau	1770	25	8.87	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside	Soil, water, natural vegetation and wildlife inside riparian area are	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in	Estate Manager Estate Assistant	December 2012

11	Riparian S.Pekarao	2840	25	14.20	4.1	riparian area.	preserved	HCV Area arrangements	HCV areas.	Estate Manager Estate Assistant	Beginning 2012
						The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well		Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.		
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
12	Riparian S.Tamara	13670	25	68.37	1.1; 4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.		
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
13	Riparian S.Temare	3420	25	17.09	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.		
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
14	Riparian S.Utumakia	3290	25	16.46	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager and Estate Assistant	Beginning 2012

									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
15	Riparian S.Waumako	2030	25	10.14	4.1	The protection of Biodiversity/HCV area	To ensure the function of riparian area is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
						To enhance the function of HCV area by protecting the soil, water, vegetation and wild life inside riparian area.	Soil, water, natural vegetation and wildlife inside riparian area are preserved	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas), and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
B. Deep Peat											
1	Deep peat (peat depth > 3 meter)			1,509.35	3; 4.1	The protection of peat land area	The function of protected forest is running well	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles every 200 meters	Estate Manager Estate Assistant	December 2013
							Minimize the disturbance of peat land area	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
C. Sacred Places											
1	Sagu			1,541.74	6	The protection of Sacred place (Sagu)	To ensure that no Disturbance and damaged	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013

							Minimize the disturbance of sacred area	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012
C.	Cemetery Places										
1	Temare and Temu			1.74 and 8.63	6	The protection of cemetery place	Not Disturbance and damaged	HCV Area arrangements	Field demarcation by painting the trees along the riparian boundary using red paint (The step of this field demarcation is following the operational plan) to mark the riparian width prior to land clearing.	Estate Manager Estate Assistant	Beginning 2012
									Field demarcation using permanent poles.	Estate Manager Estate Assistant	December 2013
							Minimize the disturbance of cemetery area	HCV Area Socialization	Conduct socialization with communities surrounding the company and employees about the present of HCV area (what activities that can be done and cannot be done inside the HCV areas) and also establish sign board in HCV areas.	Estate Manager Estate Assistant	December 2012

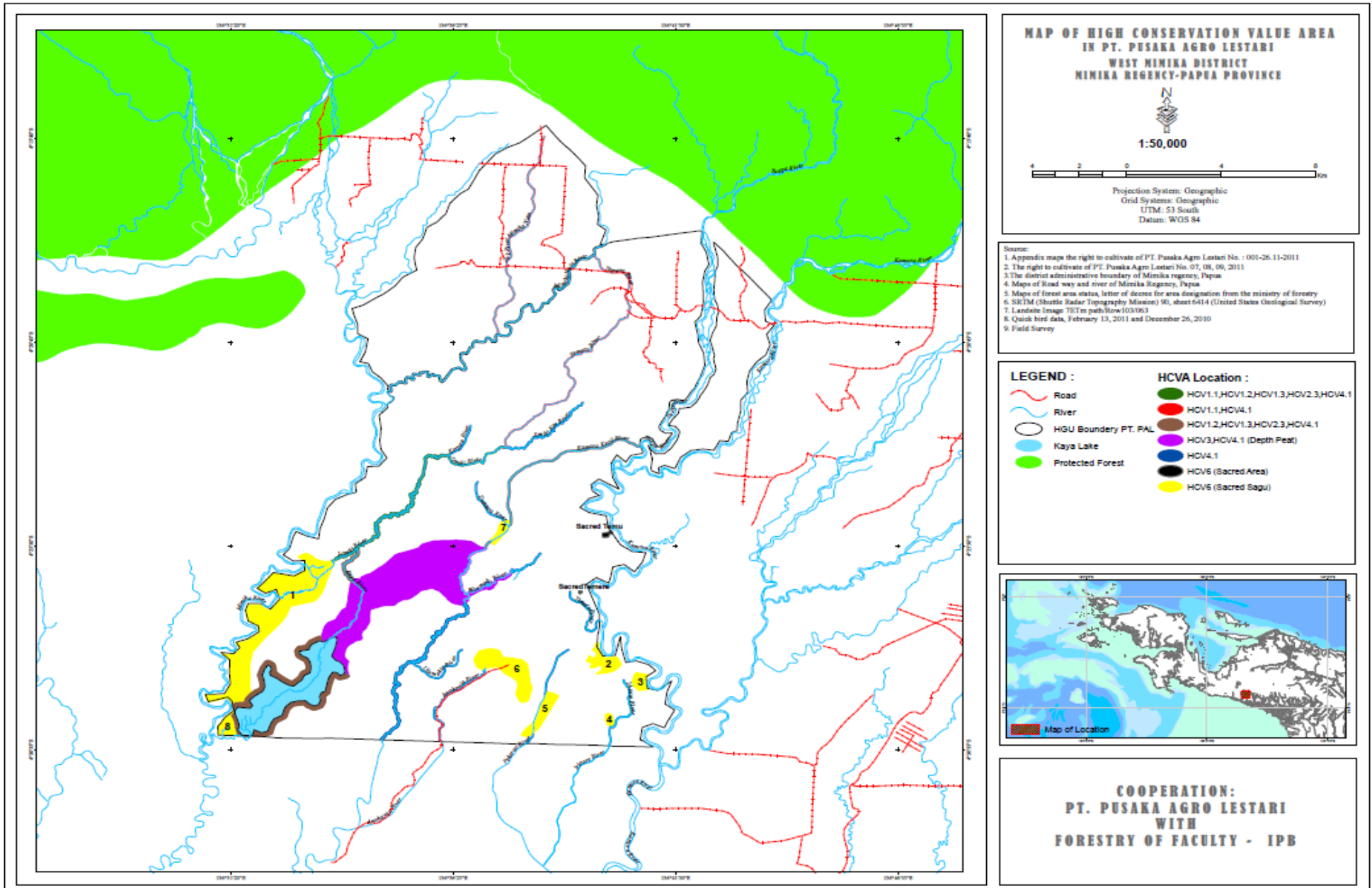


Figure 5: Map of the PT PAL project area showing the biodiversity and HCV area.

DECLARATION

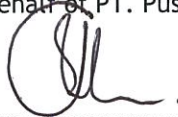
(ACKNOWLEDGMENT OF INTERNAL RESPONSIBILITY AND FORMAL SIGN-OFF OF THE MANAGEMENT AND MITIGATION PLANS)

Statement of acceptance of responsibility for the management plans

On behalf of the company, I acknowledge the responsibilities of the company to implement the management and mitigation plans and ensure it is implemented during and after planting.

Management of PT. Pusaka Agro Lestari

Signed on behalf of PT. Pusaka Agro Lestari



President Director

Date: 9th January 2012