

Summary Report of Planning & Management of PT Agrokarya Primalestari Mentaya Hulu Sub-District, Kotawaringin Timur District - Central Kalimantan Province

Executive Summary

PT Agrokarya Primalestari (PT AKPL) is located in Kecamatan Mentaya Hulu, Kotawaringin Timur District, Central Kalimantan Province. The business activities of PT AKPL are based on a Location Permit from the Head of Kotawaringin Timur District under the Decree of Kotawaringin Timur District Head No 613.460.42 in Sampit dated 3 September 2004 (for a total plantation area of $\pm 20,000$ ha) and the Decree of Kotawaringin Timur District Head No 393.400.9.62.02/VII/2010 concerning a Land Permit for palm oil development in Kapok, Tajur Beras Village, Kawan Batu Village, Mentaya Hulu Sub-District, Kotawaringin Timur District, Central Kalimantan Province dated 7 July 2010 (for a total area of 2,300 ha with 500 ha dedicated for plasma). The permit was then extended by decree of Central Kalimantan Governor Agustin Terasnarang No 188.44/130/2007 in Palangka Raya dated 23 March 2007 for a total plantation area of $\pm 20,000$ ha and valid for three years. The company's Plantation Business Permit (IUP) was issued by the Governor of Central Kalimantan under Decree No. 188.44/130/2007 dated on 23 March 2007, in Mentaya Hulu Sub-District, Kotawaringin Timur District and Seruyan Tengah Sub-District, Seruyan District, Central Kalimantan Province, for a total area of 20,000 ha.

PT AKPL obtained its Environmental Permit under the Governor of Central Kalimantan Decree No 188.44/184/2007 dated 10 May 2007. In addition to the Environmental Impact Assessment (EIA) documents, the company through an internal team from PT SMART Tbk. also completed a Social Impact Assessment (SIA). In order to collect data on the social, economic and cultural aspects of the villages around the estates/palm oil mill of PT AKPL, a survey was employed which included a questionnaire, in-depth interviews, and a focus group discussion. Secondary data was collected by conducting a literature review of the SEIA documentation, High Conservation Value (HCV) Identification reports, as well as analysis of the supporting data from government sources such as local government web pages.

The HCV assessment was done by the Research Centre for Bioresources and Biotechnology (PPSHB) of the Institute of Research and Community Services, Bogor Agricultural Institute (IPB) from 23 June to 6 July 2010 on Location Permit of PT AKPL.

PT AKPL possesses an HCV and SIA master plan for the period 2010-2014. The master plan outlines programmes, targets, activities phases, indicators, locations, timeline, persons-in-charge, implementers, sponsors and supporting evidence relating to ongoing programmes.

The Environmental Management and Environmental Monitoring Plan (RKL-RPL) serves as a translation of SEIA documentation and elucidate the monitoring timeline and impacts that the plantation and mill activities have on the environment. PT AKPL has also prepared a social impact and monitoring plan as a follow-up to SIA documentation. The planning specifies the types of social impact; resource impact, impact management action, benchmark management and site management, the implementing period, implementer (PT AKPL), and supervisor (Mentaya Hulu Sub-District).

These three documents guide PT AKPL in managing environmental and social impacts.

Reference Documents

The reference documents are as follows:

- a. The EIA approved by the Governor of Central Kalimantan through decree No. 188.44/184/2007 dated 10 May 2007;
- b. Environmental Impact Analysis (KA-ANDAL) of Plantation and Palm Oil Mill issued in 2005 by consultant PT Geo Dinamik Utama Palangka Raya;
- c. HCV identification and management report for PT AKPL palm oil plantation, Kotawaringin Timur District, Central Kalimantan Province, by Research Center for Bioresources and Biotechnology of the Institute of Research and Community Services, Bogor Agricultural Institute, September 2010;
- d. The SIA documents prepared by internal team of PT SMART, February 2013;
- e. Environmental Management and Environmental Monitoring Plan (RKL-RPL) dated 2007;
- f. Social impact management planning and monitoring document, February 2013;
- g. Master plan of HCV management for the period 2010-2014.

Summary of the reference documents

PT AKPL has had a positive impact on the environment and social life of the surrounding communities in the area where the company operates. Positive impacts include economic improvement, community welfare and contribution to regional development. On the other hand, possible negative impacts are the threat to ecology, as well as community unrest and social jealousy. Seven areas of HCV covering a total area of 993.3 ha in PT AKPL have been identified, specifically HCV 1.1, HCV 1.3, HCV 1.4, HCV 2.3, HCV 4.1, HCV 4.2, and HCV 6.

SEIA and HCV Management & Planning Personnel

Organisational information and contact persons

Company Name	:	PT Agrokarya Primalestari
Location	:	Dusun Kapok, Tajur Beras Village and Kawan Batu Village, Mentaya Hulu Sub-District, Kotawaringin Timur District, Central Kalimantan, INDONESIA
Geographical location	:	112°15'26.328" -112°29'42.511" E, and 1°55'29.523" - 2°6'47.578" S
Surrounding entities	:	
a. North	:	PT Karya Makmur Sejahtera
b. East	:	PT Karya Makmur Sejahtera
c. West	:	PT Karya Makmur Sejahtera
d. South	:	PT Kridatama Lancar
Permits	:	1. Kotawaringin Timur District Head's decree No 613.460.42 stipulated in Sampit dated 3 September 2004 for a total area of ±20,000 ha. 2. Kotawaringin Timur District Head's decree No. 393.400.9.62.02/VII/2010 of 7 July 2010 concerning Land Permit for palm oil development inKapok, Tajur Beras village, Kawan Batu village, Mentaya Hulu Sub-

District, Kotawaringin Timur District, Central Kalimantan, for a total area of 2,300 ha with 500 ha dedicated for plasma.

3. Extension of Location Permit: Decree of Central Kalimantan Governor, Agustin Terasnarang, No 188.44/130/2007 stipulated in Palangka Raya dated 23 March 2007 for a total plantation area of approximately 20,000 ha and valid for three years.
4. Plantation Business License / IUP: Central Kalimantan Governor's decree No. 188.44/130/2007 dated 23 March 2007, in Mentaya Hulu Sub-District, Kotawaringin Timur District and Seruyan Tengah Sub-District, Seruyan District, Central Kalimantan Province for a total area 20,000 ha.
5. Land Use Permit (HGU): In process.

The participants : Parties involved in the preparation of HCV documentation and formulation of management and monitoring plans of PT AKPL are the company's management assisted by the PPSHB team, Sub-District head, the village chief and its apparatus, Sub-District Military commandant (*Danramil*), District police chief (*Kapolsek*), community leaders, religious leaders, universities, local NGOs, and other parties related to plantation activities. Peer review of HCV assessment report was conducted by Resit Sozer (independent consultant) in April 2011. The parties mentioned above attended the public consultation on 5 July 2010 in Sukamandang village, Seruyan Tengah Sub-District, Seruyan District, Central Kalimantan Province. The parties involved in the preparation of SIA documents and management as well as monitoring plans include Village Heads, Heads of Village Representative Boards (*Badan Perwakilan Desa—BPD*), community representatives and the management of PT AKPL.

Summary of Planning and Management (SEIA)

The SEIA document has been approved by the Governor of Central Kalimantan under his decree No 188.44/184/2007 dated 10 May 2007 on the Environmental Impact Assessment for the Activities in the Oil Palm Plantation and Palm Oil Mill in Mentaya Hulu Sub-District, Kotawaringin Timur District, Central Kalimantan Province. In addition to the SEIA documents, the company through an internal team from PT SMART led by Mr Yosaphat Ardhilla Renato issued its SIA document in February 2013.

General Recommendations of the SIA

1. Community Anxiety and Social Jealousy

Having carried out socialisation during the investment stage, PT AKPL followed free, prior, informed, consent (FPIC) procedures and methods for land acquisition and compensation. The

socialisation and FPIC processes help the company to clarify and promote the investment climate for the oil palm plantation business managed by PT AKPL.

Zoning is the initial step in PT AKPL's land compensation process. It is an important stage that can be useful if future problems arise regarding the land acquisition and compensation. In addition, the company needs to confirm and explain the progress of its plasma scheme. This is a crucial element of the company's corporate social responsibility (CSR) programmes, as the implementation of a plasma scheme reduces the risk of social conflict.

PT AKPL conducts socialisation regarding its manpower needs, adhering to the quota for hiring labourers and providing the local authorities with current data. Priority is placed on proactive communication with stakeholders, including public consultation on land acquisition. Using local workers is also important and perceived as cost effective, in that the company does not need to bring in workers from outside the region. The company needs to conduct entrepreneurship training for the communities, so that people are able to diversify their means of livelihood. This can be done in collaboration with the relevant agencies that are competent to provide such training.

2. Economic Improvement

PT AKPL makes the following efforts towards economic development for the community: providing information regarding manpower needs to the local government in accordance with requirements, setting employee salaries at or above the minimum wage, empowering the community through local partnerships and the purchase of goods and services from local businesses, implementing Occupational Health and Safety (OHS) policies, and providing training to employees to improve their competence,. In addition to internal programmes, PT AKPL carries out activities under the plasma scheme that have the potential to improve the economic well-being of the communities and farmers involved.

3. Minimising Environmental Degradation

Proactive communication with stakeholders is needed for environmental and health management. The company conducts socialisation and performs strict supervision of contractors in order to achieve environmental management in its operations, implement best practices in the management of palm oil wastes and hazardous as well as toxic materials (*Bahan Beracun dan Berbahaya - B3*), and report social and environmental impact monitoring to the relevant agencies. This represents a series of efforts to manage the significant negative impact of environmental degradation.

4. Social Welfare and Regional Development

Synergy can be generated between this management programme and long term CSR programmes. Efforts that should be included are: scholarships for outstanding students, support for cultural activities such as traditional ceremonies held in the area. The company's compliance in paying taxes has indirectly assisted or contributed to regional development.

Public consultation on the managing the social impact of PT AKPL was held on 1 February 2013 at the PT AKPL office in Central Kalimantan. The consultation was conducted by the SIA team and attended by a 44 participants including PT AKPL's management team and stakeholders.

Summary of Environmental Management and Monitoring Plan PT Agrokarya Primalestari							
No.	Environment standard (Operational phase)	Impact sources	Parameters	Methods for Collecting and Analysing Data	Location	Duration and Frequency of Monitoring	Environmental Management Plan (RKL)
a	Micro Climate (Temperature and Humidity)	Plantation development activities	Temperature and relative humidity	Measurement using Thermometer & Hygrometer at 06-08, 12:00-14.00, and 21.00-00.00 wib	Area that has been opened for planting	2 times a year	Planting ground cover crops (legume cover crop), implementation of leguminose (legume crops) planting soon after land opening and clearing.
b.	Air quality	FFB processing activities, CPO transport and Palm Oil Mill waste management	Dust/particulates (PM10), sulphur and nitrogen (SO ₂ dan NO ₂), CO and O3 level	Gravimetric method, Pararosanilin method for SO ₂ , Saltzman method for NO ₂	Residential areas near the roadway on which CPO trucks traverse, location of palm oil mill	2 times a year.	Regular upkeep of equipment, reducing the speed of vehicles on the dusty road, watering, utilising tools that is still viable operations, avoiding deforestation in the riparian zone, installing a filter stack
c.	Noise	FFB processing activities, CPO transport and POM waste management	Noise pollution level	Measurement using Integrated Sound Level Meter, measurement frequency 7 times: 4 times at daylight, 3 times at night, for 10 minutes for each measurement.	Palm oil mill and residential nearby the roadway on which CPO trucks traverses	2 times a year.	Regular upkeep of equipment, reducing the speed of vehicles on the dusty road, watering, utilising apparatus that is still viable operations, avoiding deforestation in the riparian zone, installing a filter stack, workers to wear earplugs.
d.	Soil Physical and Chemical Properties	Activities in plantation development and maintenance activities	Texture, structure, drainage, soil permeability, effective soils depth, water pH, C-organic, N total, Available P, Cation exchange (K, Na, Ca, Mg), Cation Exchange Capacity (CEC), saturation of base	Taking composite samples of topsoil at a depth of 0-30 and 30-60 cm at ±1 kg to determine physical and chemical properties of the soil	The entire concession area of PT AKPL.	2 times a year.	Planting ground cover crops (legume cover), utilising EFB for mulching, developing and implementing SOP for environmentally friendly plantation development and maintenance, using fertiliser according to the "Four Rights (4Rs)" strategy of applying the right nutrient source at the right rate, at the right time, and in the right place.
e.	Water quality	Plantation maintenance, FFB processing, and mill waste management.	pH, Total Soluble Solid (TSS), BOD, COD, Nitrogen Total (N-Total), Oil and Grease.	Water sampling and laboratory analysis	Tilap River	3 times a year	Developing and implementing SOP for environmentally friendly plantation development and maintenance, using fertiliser according to the "Four Rights (4Rs)" strategy of applying the right nutrient source at the right rate, at the right time, and in the right place, rotation of waste water utilisation adjusted to the permeability and appropriate waste water dose.

Summary of Environmental Management and Monitoring Plan PT Agrokarya Primalestari

No.	Environment standard (Operational phase)	Impact sources	Parameters	Methods for Collecting and Analysing Data	Location	Duration and Frequency of Monitoring	Environmental Management Plan (RKL)
f.	Ground water quality	Waste water utilisation activities (<i>land application</i>)	pH, Total Soluble Solids (TSS), BOD, COD, Nitrogen Total (N-Total), Oil & Grease and some heavy metals.	River water sampling and laboratory analysis	Wells belonging to the villagers of Penda Durian village, Pahirangan, Satiung, and Santilik.	2 times a year	Building waste water treatment system, determining LA location that meets the regulatory requirements, setting the rotation is adjusted to the permeability of the utilization waste water dose that will be utilized.
g.	River water flow rate	FFB processing activities	Water surface level and flow rate fluctuation	Water surface level observation and calculation of water flow rate	Tilap river	3 times a year	Building water reservoirs, maintaining riparian zone, employing river water efficiently, and utilising ground water as a reservoir if necessary
h.	Aquatic Biota	FFB processing activities	Population diversity of water biota	Sampling and laboratory analysis	Tilap river	3 times a year	Managing the aquatic biota abundance in the project area, developing monitoring system and early warning detection of aquatic biota especially fishes from rivers around project area
i.	Public attitudes and perception	Mill waste management activities	Number of community members that show either agreement or disagreement	Direct observation and interviews with local residents around the plantation area using random sampling method. Interviews were conducted through dissemination of a questionnaire and supported by in-depth interviews. Data analysis carried out and qualitatively.	Penda Durian village, Pahirangan, Satiung, and Santilik.	2 times a year	Conducting social approach to the local community regarding implementation of mill waste management and environmental management efforts.
j.	Social anxieties	Mill waste management activities	Number of community members that experience anxieties because of the project presence.		Penda Durian village, Pahirangan, Satiung, and Santilik.	2 times a year during POM waste management activities take place.	Conducting social approach to the local community regarding FFB processing plan and environmental management as well as mill waste management.
k.	Public health quality	Mill waste management	Public health quality		Penda Durian village, Pahirangan, Satiung and Santilik.	2 times a year during POM waste management activities impleme	Maintaining and avoiding environmental pollution during FFB processing, providing health screening and treatment as well as transportation to needy members of the local community.

Summary of Environmental Management and Monitoring Plan PT Agrokarya Primalestari

No.	Environment standard (Operational phase)	Impact sources	Parameters	Methods for Collecting and Analysing Data	Location	Duration and Frequency of Monitoring	Environmental Management Plan (RKL)
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Summary of Planning and Management (HCV)

Recommendations for HCV Management

The following are among the recommendations regarding HCV management to be executed by the managing unit of PT AKPL:

- a) HCV 1: prepare and implement SOP for management of protected areas (maintain limits, security, inventorise and rehabilitate/restorate protected areas, install signboard identifying protected areas), prepare basic data documentation (baseline information) relating to flora and fauna, acquire and protect remaining wooded acreage with high tree canopy as a habitat for wildlife, manage wildlife habitat and its population.
- b) HCV 2: strengthen protected area that serves as a wildlife pocket/corridor, manage wildlife predator habitat including food resources, water supply and cover/shelter, relocate the population if conditions are no longer conducive to its survival.
- c) HCV 4: settle land compensation immediately in areas identified as HCV 4.1, manage and mark the boundary of the area identified as HCV 4.1, rehabilitate and restore riparian zone with various native trees species, using terracing and planting cover crop, plant perennials on slopes or cliffs in areas of High Erosion Potential according to the Degree of Erosion Danger (*Tingkat Bahaya Erosi-TBE*), rehabilitate or restore the three hills in the area with various perennials that have strong roots, and control mining activities.
- d) HCV 6: Mark the existing graveyard, protect the graveyard from flooding by elevating the site, and install a tombstone, develop media such as a signboard to show the location.

Monitoring Recommendations

- a) HCV 1: monitor areas that have been degraded and converted, monitor water quality, especially in rivers, monitor changes in diversity of flora, fauna and aquatic biota, monitor wildlife habitat and population, monitor the level of disturbance due to illegal hunting and habitat destruction, monitor use of hazardous and toxic material that could potentially contaminate water bodies in the area, monitor the water quality and level of diversity and abundance of aquatic biota of Banyuasin River and Manggaraya Canal, monitor security threat level.
- b) HCV 2: monitor wildlife habitat and population, as well as security threat level.
- c) HCV 4: monitor intensity of disturbance (erosion, logging, deforestation and fires), monitor hydrological dynamics of peat ecosystems, monitor river water quality and flow rate (primarily turbidity) on a regular basis within a certain period of time, monitor the success rate of rehabilitation or restoration, measure erosion directly on the field on a regular basis at certain periods, monitor the level of disruption to HCV 4.2.
- d) HCV 6: monitor evidence of graveyard border maintenance from the participatory mapping.

Plan for HCV Monitoring and Regular Data Review

Peer review of the HCV Assessment report as well as HCVA Management and Monitoring Plans for the concession area of PT AKPL was carried out by independent consultant Resit Rozer in April 2011.

Management and planning for threats to HCV areas.

1. HCV 1.1

The key to ecosystem management in upstream highland areas is based on principles of ecological/environmental sustainability. The protected area with a relatively healthy ecosystem

must be well managed, supported by a management plan for the long term, on the basis of data/information that is valid, reliable and monitored at regular intervals.

2. HCV 1.3

Flora Aspect

- Delineate on the map the habitat of plant species classified as vulnerable (as defined in the Red Data Book IUCN) and protected (Government Regulation / PP No.7/1999).
- Mark the boundary of the areas of HCV 1.3.
- Take steps to preserve the protected and vulnerable plants.
- Develop SOP for management of vulnerable and protected plants.
- Carry out enrichment planting of various types of *ulin*, *jelutung* and *durian burung* on the disturbed habitat.
- Periodically brief the community, PT AKPL staff as well as contractors on the importance of maintaining and preserving habitat of various vulnerable and protected plants.

Fauna Aspects

- Establish a special institution dedicated to managing wildlife, both its population and its habitat, to be integrated with the environmental management institution.
- Prepare basic data documentation (baseline information) of the flora and fauna, including their abundance/wealth, diversity, distribution, population abundance, and habitat condition.
- Announce wildlife protected areas that serve as a wildlife corridor, as approved by The Board of Directors.
- Monitor the fauna population.
- Relocate population when conditions render it unlikely to survive.
- Protect the remaining forest area containing high plant canopy, by land acquisition (with compensation) for areas owned by community or by collaboration with the local community through an incentive scheme or community empowerment so that clearing of wildlife habitat no longer occurs.
- Manage wildlife population and habitat. If needed for restocking of natural population, this can be done by population management *ex situ*.
- Protect the region from land conversion activities and illegal hunting, for example by installing and maintaining information boards prohibiting hunting or damaging the wildlife habitat.
- Develop SOP for management of the restricted conservation area. The SOP should cover inventory and monitoring of wildlife, maintenance of protected area boundary, grazing in a protected area, the involvement of the community in the management of a protected area, wildlife management (including the management of the wildlife populations and habitat), management of the palm oil plantation around the protected areas (such as: fertilisation, waste disposal, harvesting, management of weeds, pests and disease), the incentive mechanism, and handling conflict.
- Socialisation of the community and company staff on sustainable wildlife protection, preservation and/or utilisation.

3. HCV 1.4 and HCV 2.3

- Establish a special institution dedicated to managing wildlife population and habitat, to be integrated with the environmental management institution.
- Prepare basic data documentation (baseline information) associated with the flora and fauna, including their abundance/wealth, diversity, distribution, population abundance, and habitat condition.

- Announce wildlife protected areas that serve as a wildlife corridor, as approved by the Board of Directors.
- Monitor population.
- Relocate population when conditions render it unlikely to survive.
- Protect the remaining forest area containing high plant canopy, by land acquisition (with compensation) for areas owned by community or by collaboration with the local community through an incentive scheme or community empowerment so that clearing of wildlife habitat no longer occurs.
- Manage wildlife population and habitat. If needed for restocking of natural population, this can be done by population management ex situ.
- Protect the region from land conversion activities and illegal hunting, for example by installing and maintaining information boards prohibiting hunting or damaging the wildlife habitat.
- Develop SOP for management of the restricted conservation area. The SOP should cover inventory and monitoring of wildlife, maintenance of protected area boundary, grazing in a protected area, the involvement of the community in the management of a protected area, wildlife management (including the management of the wildlife populations and habitat), management of the palm oil plantation around the protected areas (such as: fertilisation, waste disposal, harvesting, management of weeds, pests and disease), the incentive mechanism, and handling conflict.

4. HCV 4.1

- Dissemination and socialization to the surrounding community, employees and contractors about the importance of the riparian zone.
- Settle land compensation immediately on the area identified as HCV 4.1 to facilitate operations at a later date.
- For the area identified as HCV 4.1 but not yet acquired or which will take a long time to acquire, educate the public on the importance of the riparian zone.
- Restore the riparian zone that has been cleared and not yet planted, by using a wide variety of native plants including protected or rare species. As for the riparian zone that has been planted with oil palm, gradually replace the palm trees with woody plants.
- Control the use of synthetic chemicals (fertilisers and pesticides) in the plant blocks near the riparian zone.
- Manage and mark the boundary of the area identified as HCV 4.1.
- Safeguard the area by regular patrol.
- Take an inventory of biophysical conditions in HCV 4.1 areas in the form of vacant land, shrubs and low density stands for the enrichment planting and rehabilitation.
- Implement enrichment planting for areas with low stands density, and rehabilitate or restore empty land using indigenous plants.
- Install signs that contain restrictions and advisories, particularly about fire prevention and shifting cultivation.

5. HCV 4.2

- Plant perennials on slopes or cliff areas which have High Erosion Potential,
- Rehabilitate or restore the three hills in the area with various perennials that have strong roots so that they form a covering stratum that can reduce the kinetic energy of rainwater and therefore damage to the soil.
- Control stone mining activities.

- Socialisation to workers, day labourers and surrounding community on forest fire prevention.

6. HCV 6

- Structure the traditional villages by cleaning it up
- Provide signboards explaining local folklore.
- Protect the existing village area from flood hazard.
- Carry out dialogue with local community to guard and preserve their traditional village.
- Socialisation to workers and other communities outside dusun Ipuh to participate in protecting that traditional village and avoid damaging it.
- Develop communication media to communicate the existence of a traditional area and disseminate the interpretation of traditional cultural values of Ipuh village (*Kaharingan*).
- Develop media such as installing signboards to identify the location and to persuade the community to maintain the traditional graveyard.

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

1. HCV 1.1

Based on the potential threat of human disturbance and preservation of ecological systems, a few parameters should be monitored on a regular basis, such as:

- Locations that have been degraded and converted in protected areas as well as the cause of the disruption.
- Climate quality, especially micro climate.
- Water quality, especially water in Sekawan Batu River.
- Trends in changes in flora variation which are monitored in permanent sampling quadrants with sampling intensity of 0.1%.
- Trends in changes of fauna variation which are monitored in permanent sampling quadrants with sampling intensity of 0.1%. Parameters that need monitoring are abundance, density, age structure, sex ratio, distribution and food abundance.
- Wildlife population growth.
- Changes in aquatic biota variation which are monitored in permanent sampling quadrants with sampling intensity of 0.1%.
- The growth of aquatic biota population.
- Quality of signboard and boundary poles.
- Trends in the distraction level.

2. HCV 1.3

Flora Aspects

- Monitoring plant species that are categorised as vulnerable and protect them and their habitat.
- Monitoring and supervising contractors working in the area of PT AKPL.
- Monitoring the forest area that has not been handed over from the community to PT AKPL, for the existence of vulnerable and protected species.
- Monitoring forest/land fire threats caused by land clearing by the community for shifting cultivation.

Fauna Aspects

- Monitoring of fauna population including abundance, distribution, and home range, age structure and sex ratio.
- Monitoring of wildlife habitat including food quality and quantity, fragmentation and source habitat fragmentation as well as trend of land cover changes and succession.
- Monitoring the disturbance intensity including hunting/harvesting wildlife, destruction/loss of habitat, and the use of hazardous materials that could potentially contaminate aquatic areas, which directly or indirectly pose a potentially negative impact on population growth of wildlife.
- Monitoring the community participation rate.

3. HCV 1.4

Monitoring activities conducted at regular intervals based on potential threats, the quality of habitat and population include:

- Monitoring of fauna population including abundance, distribution, and home range, age structure and sex ratio.
- Monitoring wildlife habitat including food quality and quantity, fragmentation and source habitat fragmentation as well as trend of land cover changes and succession.
- Monitoring the disturbance intensity including hunting/harvesting wildlife, destruction/loss of habitat, and the use of hazardous materials that could potentially contaminate the aquatic areas, which directly or indirectly pose a potentially negative impact on population growth of wildlife.
- Monitoring the community participation rate.

4. HCV 2.3

Wildlife monitoring activities are undertaken with the aim of observing the growth rate and health of wildlife populations and their habitats, so that immediate action can be taken swiftly and appropriately. Such monitoring must be done on a regular basis, and is based on the potential threat, the quality of habitat and populations. Some of the recommended monitoring activities to be performed are as follows:

- Monitoring of fauna population including abundance, distribution, and home range, age structure and sex ratio.
- Monitoring wildlife habitat including food quality and quantity, fragmentation and source habitat fragmentation as well as trend of land cover changes and succession.
- Monitoring the disturbance intensity including hunting/harvesting wildlife, destruction/loss of habitat, and the use of hazardous materials that could potentially contaminate aquatic areas, which directly or indirectly pose a potentially negative impact on population growth of wildlife.
- Monitoring the community participation rate.

5. HCV 4.1

Some important monitoring activities undertaken are:

- Monitoring of the intensity of disturbance (erosion, deforestation, logging, fire).
- Monitoring of river water quality and flow rate regularly within a specified period.
- Monitoring the level of success of enrichment planting or rehabilitation/restoration.

6. HCV 4.2

To guarantee that the area is managed appropriately, the following monitoring measures are needed:

- Measurement of erosion directly on site on a regular basis within a certain period.
- Monitoring of water quality and river discharge (primarily turbidity) at certain periods
- Monitoring of successful rate of rehabilitation of hilly area identified as HCV 4.2.
- Monitoring of the level of disruption to HCV 4.2.

7. HCV 6

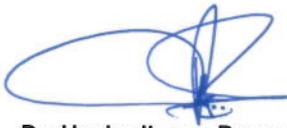
To measure the performance of management indicators, the following efforts are carried out:

- Monitoring of the maintenance of cultural evidence.
- Monitoring the implementation of management activities at the cultural location.
- Monitoring of the level of community participation and the possibility of disruption to the existence of the cultural location,

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.

On behalf of the Management of **PT Agrokarya Primalestari**,



Dr. Haskarlianus Pasang

Head of Sustainability Division

Date: May 10th, 2013