

# RSPO NOTIFICATION OF PROPOSED NEW PLANTING

This notification shall be on the RSPO website for 30 days as required by the RSPO procedures for new plantings (http://www.rspo.org/?q=page/535 ). It has also been posted on local on-site notice boards.

Date of notification: 22<sup>nd</sup> January 2014

# Tick whichever is appropriate

	This is a completely new development and stakeholders may submit comments.
٧	This is part of an ongoing planting and is meant for notification only.

COMPANY : BUMITAMA AGRI LIMITED (BAL)

SUBSIDIARY (If any) : PT NABATINDO KARYA UTAMA (subsidiary of BAL)

RSPO Membership Number : 1-0043-07-000-00 (registered under BAL since October 8<sup>th</sup>, 2007)

Location of proposed new planting:

Company Name : PT NABATINDO KARYA UTAMA (PT NKU)

Location : Tumbang Koling Village, Cempaga Hulu Sub-district, Kotawaringin

Timur Regency, Central Kalimantan Province.

Geographical location : 110°9′0.1" – 110°25′31" W and 0°40′23" – 0°50′16" S

• Surrounding Entities : based on HCV Identification Final Report 2013

a. North : PT Bumi Hutan Lestari and Production Forest Area

b. East : PT Bisma Darma Kencanac. West : PT Hutan Sawit Lestari

d. South : PT Windu Nabatindo Abadi and PT Tunas Agro Subur Kencana

• New Planting Area : ± 11,000 Ha (based on location permit) consist of 9,000 Ha (allocated for own estates) and 2,000 Ha (allocated for plasma smallholders). Plantable area: 7,325.28 Ha

(based on HGU) and 1,538 Ha (based on approved submission by smallholders).

#### List of legal documents, regulatory permits and property deeds

The permits that have been obtained by the company are inclusive of Permitted Area (Location Permit/izin Lokasi), Environment Impact Assessment (AMDAL), Environmental Permit (Izin Kelayakan Lingkungan) and the Plantation Business Permit (Izin Usaha Perkebunan). The followings are the list of the licenses and recommendations:

Table 2. Types of permits and recommendations PT NKU

No	Licensesand recommendations	Issuedby	Number	Note
1.	Deed of Establishment	Nurita Zouharminy, SH	07	Registered 11-07-2005
2.	Tax Registration Code Number	Directorate General of Taxes, Ministry of Finance	02.459.420.2-712.000	
3.	Principle approval (Ijin Prinsip)	Regent of KotawaringinTimur (Bupati KotawaringinTimur)	525.26/514/VII/EKBANG/2005 (size ± 11,000 Ha)	Registered 21-07-2005
4.	Permitted Area (Izin Lokasi)	Regent of KotawaringinTimur (Bupati KotawaringinTimur)	No.803.460.42 (size ± 11,000 Ha)	Registered 15-08-2005
5.	Plantation Business Permit(IzinUsahaPerkebunan)	Regent of KotawaringinTimur (BupatiKotawaringinTimur)	No.525.26/678/XI/EKBANG/2005 (size ± 17,800 Ha)	Registered 28-11-2005
6.	Kadasteral measurement Map	BPN	No 34-15.05-2008 size ± 7,325.28 Ha	Registered
7.	Environmental Permit (Izin Kelayakan Lingkungan)	Regent of Kotawaringintimur (BupatiKotawaringinTimur)	No. 496 tahun 2009 size ± 11,000 Ha	Registered 31-10-2009

<sup>\*)</sup> All legal documents available on Public Affairs Department

Figure 1. Location Map of PT NABATINDO KARYA UTAMA in KALIMANTAN Island



Figure 2. Location Map of PT NABATINDO KARYA UTAMA in the District of Kotawaringin Timur

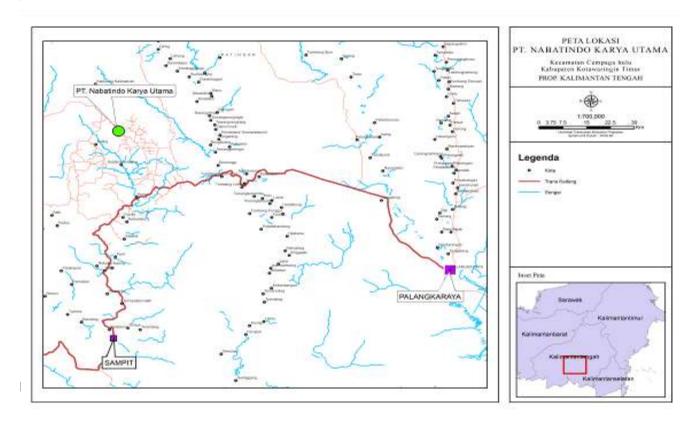
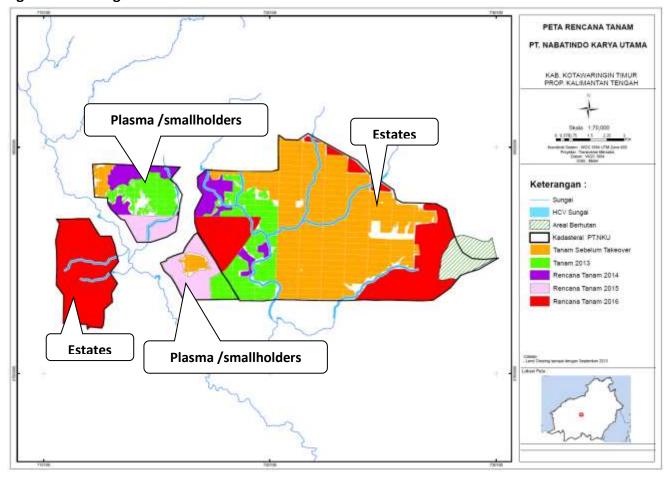


Figure 3. Plantings Area of PT NABATINDO KARYA UTAMA



#### **SUMMARY FROM SEI ASSESSMENT:**

The Environment Impact Assessment of PT NKU was carried out by CV. Environment Technoligy, with address at Jl. Akasia VI No. 04 Palangkaraya, Central Kalimantan (Telephone No: 0536 – 3324600)

The key consultants conducting these assessments are accredited with the Competency certificate which was approved by The National Association of Professional Consultants of Indonesia:

Table 3. Person and Expertise EIA Team Assessor in PT Nabatindo Karya Utama

Team composition	Name	Specification	Competence certificate
Team Leader	Ir. Muhammad Wahyudin, M.Si.	Environment Management	Team Leader (AMDAL A, B, C)
Sub Team Geo - Physic – Chemist	Rendro Rismae Riady, S.T	Environment Technic	Member
Sub Team Biologi	Anwar Fauzi S.Pi.	Water Biota	Member
	Yulian Mara Alkusuma, S. Hut	Forestry	Member
Sub Team Leader of social culture-community health	Saijo. SP, MP	Economic social	Member

## Assessment Methods (data sources, collection, dates, program, and visited places)

The data collection process was strongly associated with the type of data that collected. In generally, studies will be conducted based on primary data and secondary data. Primary data obtained through observation, measurement and field interviews, and secondary data obtained from the literature collected, either from the company, or directly from related institutions in the study of this areal. The methods that were used to collect the data adjusted with components that can be studied. The used data must be accurate and reliable so that it could be use to analise, measure and observe the environmental components which was predicted would be affected and components of action plan which was predicted to give significant impacts to the surrounding environment. The data were collected was as follow:

- Physic Chemist Components (Climate, Air Quality and Hydrology, and Soil).
- Biological Components (Vegetation, Animals, and Water Biota).
- Socio-Economic Culture Components (Demography/ Population, Social, Economic, Social and Cultural).
- Environmental Health and Public Health Components (Environmental sanitation, public health level, level of public health services).

## **Methods of Significant Impact Estimation**

Determination of the significant impact to the environment caused by the development activities of the plantation and the palm oil mill is only intended as an attempt to estimate the large and important environmental quality changes that are caused by the plantation development activities and the palm oil mills of PT NKU in Cempaga Hulu district, Kotawaringin Timur Regency. Method of significant impact estimation is by differentiating the magnitude impact and significant impacts.

#### A. Estimation on the Magnitude of Impact

Magnitude Impact are measured from the environmental quality changes. On estimates of changes in environmental quality are used formal and informal methods.

#### 1. Formal Methods

Formal methods are used to estimate the impact of parameters which the system characteristics can be identified or estimated by using the approach of environmental threshold at national and regional levels.

#### 2. Non Formal Methods

Non-formal method is a method that is based on the professional judgment of experts, logical frame analysis and analogy. This method is use to estimate the environmental parameters which characteristics system finds difficult to identify or estimated by modeling approach such as models, socio-cultural systems.

To simplify estimates of magnitude Impact from changes in quality of the matrix filling, then used the approach of environmental quality assessment scale. Level of environmental quality assessment scale using a scale of 1-5. Based on these figures assessment, environmental quality differentiated as: excellent (5), good (4), fairly good (3), bad (2), and very poor (1).

## **B.** Determination of Important Impact Characteristics

Assessment of the important impact characteristics were in accordance to BAPEDAL decision Number: KEP-056 of 1994 on Guidelines Regarding Significant Impacts size. Meanwhile, in relation to the impact evaluation conducted by Important Impact scaling into two categories: important and less important. Characteristics Impact divided into two groups, negative impacts and positive impacts. It will be regarded as negative if the changes/ impact estimated is get adverse towards the environmental, and it is positive if the changes/ impact estimated giving beneficial to the environment.

#### C. Methods of Important Impact Evaluation

The Important Impact evaluation explore "holistic causative" against expected environmental components that is affected. For this purpose the supporting tools used is such as interactions matrix. Interactions matrix between activity components and environmental component contain magnitude of Impact and Importance of Impact. This Important Impact evaluation will conduct careful and thorough study to the primary impact (positive / negative) and secondary impacts (positive / negative), and also other derivative impacts on the environment component and activities component.

The study of the important source impact and hypothetical impact can identify the key issues that need to be managed. Results of the Important impact evaluation are also expected to assist the decision making process in the selection of a viable alternative plan that takes into consideration of the environmental aspects of the proposed area.

#### SIA (Social Impact Assessment)

The Social Impact Assessment of PT NKU was carried out by SAN which is located at: Komplek Sari Inten Number. 44 RT 02/RW 09, Ciomas Rahayu, Ciomas, Bogor - West Java, 16610 Telephone. 0251-7521685.

The key consultants conducting these assessments have been accredited and approved by the RSPO. The team members are:

Table 4. Person and Expertise SIA Team Assessor in PT Nabatindo Karya Utama

No.	Expert Name	Expertise/Position
1	Burhanuddin Gala, MA	Anthropologists
2	Janri Bungatali	Legal Labour and sociologist

# Assessment Methods (data sources, collection, dates, program, and visited places)

Social Impact Assessment (SIA) on the ground was carried out as bellows:

# Method of Executing the Study

The approach framework for SIA was by learning the present existing condition in PT NKU, particularly the socio-economic condition, socio-economic impact of the company toward the surrounding of the community, and the community's perception. Based on the existing condition, preparation and compilation were made with SIA document and social management plan which contain activities that should be carried out in order to create ideal condition (desirable condition).

Multidimensional characteristic of development interventions is urgently needed to identify the potential economic and social impact. The impact of population growth and globalization may have adverse social effects in the form of increased poverty and declining living standards around . SIA can be defined by efforts to assess or estimate , the social consequences of the presence of development activities . Social Impact Assessment is a process that provides a framework to prioritize , collect , analyze , and incorporate the information into the design and make recommendations . SIA study to ensure that recommendations being given are : ( i ) information that emphasizes social issues that are relevant , and ( ii ) incorporate strategies that involve the participation of various stakeholders . Social Assessment ( SA ) , on the other hand , is a process that provides a framework for prioritizing , gathering, analyzing and incorporating social information and participation in the design and implementation of activities ( Rietbergen - McCracken and Narayan 1998) .

The method used in the study of social impact assessment (SIA) is the method qualitative collection techniques and data gathering refers to the direction in rapid rural assessment (RRA), which combines in-depth interviews, focus group discussions (FGD) and observation. To enrich the data, also conducted a secondary data collection, combined with the use of simple quantitative methods to collect data through questionnaires. To ensure the validity of the information, then the principle of triangulation (data source compound) as well as the saturation of data (no more changes in the data collected) used in this study (Denzin and Lincoln, 2000).

At analytical level, thematic analysis is used in accordance with what is suggested by Miles and Huberman (1994). Basic theme that being used based on the issues found in preliminary studies and in the field observation. The more informant /stakeholders who confirm an issue, then the theme importance will be increasing. In addition to the thematic, descriptive analysis was also carried out to strengthen the analysis argument.

The findings obtained from the methods above were analyzed. The baseline of the analysis was based on RSPO criteria which is relevant to sustainable social aspects. The recommendations also covered other issues which were not required in the RSPO criteria, in the form of ideas or aspirations as the result of the field analysis.

#### **HCV** Assessment

The key consultants conducting these assessments have been accredited and approved by RSPO. The team members are:

**Table 5.** The name of team members Assessor and its approval status

No.	Expert Name	Expertise/Position	Status
1	Ir. Kresno Dwi Santosa, M.Si	Team Leader Socio Economic and	Approved by RSPO
		Culture Expert	
2	Dr. Ir. Harnios Arief, M.Sc.F	Biodiversity (Fauna) Expert	Approved by RSPO
3	Dr. Ir. Rachmad Hermawan, M.Sc.F	Environmental Services Expert	Approved by RSPO
4	Kasuma Wijaya, S.Hut, M.Si	GIS Expert	
5	Mulyadi Kamad, S.Hut	Socio Economic and Culture	
		Expert	
6	Domi Suryadi	Biodiversity (Flora) Assistant	
		Expert	
7	Ainurrahman, Amd	Biodiversity (Flora) Assistant	
		Expert	
8	A. Rahman Hakim, S.Hut	Environmental Services Assistant	
		Expert	
9	Hendi Kusnadi	GIS Assistant Expert	

# Assessment Methods (Data sources, data collection, dates, program, and visited places)

# Implementation Method

#### **Date and Location**

Identification and analysis of the HCV was carried out in the area of PT. NKU at Cempaga Hulu district, Kotawaringin Regency and Central Kalimantan Province. The identification and analysis was held on 7 April until 13 April 2013.

# Materials and Equipments

Materials used in the identification and analysis include are: AMDAL document, digital elevation model map, landsat image map, land system map/RePProt, indonesia topographical map (Rupa Bumi Indonesia map), forest land use map (TGHK), hydrology map, unit management administration map, IUCN red list of threatened species, The CITES Appendices, Government Regulation of Indoneisa Number 7 1999 (PP 7 1999) and materials that used in field survey are Guidance Book on Bird Life in Java, Bali, Sumatera and Kalimantan, a Field Guide to Mammals of Borneo, Payne et al., 1985, published by WWF Malaysia, Kuala Lumpur, Questioners and tally sheet.

Tools used are GPS, compass, clinometers, camera, and binoculars.

# Approach

There are 2 (two) factors that determine the success in maintaining and increasing HCV in the area of PT. NKU, namely (1) the availabilities of identification and analysis of documents on the existence of HCV since this will be use as reference in preparing management and monitoring plans, and (2) management documents and monitoring plans for the identified high conservation value area (HCVA) which will be used as a reference in the management and monitoring of HCVA.

The success in the implementation of identification and analysis activities of HCV existing in the area of PT. NKU is determined by 2 (two) factors, namely: (1) the availabilities of adequate data and updated secondary and primary data, and (2) proper and systematic documentation of activities in stages. The availabilities of updated and reasonably sufficient data and information are greatly dependent on the activities of field surveys which were carried out systematically, adequately and well planned. In order to conduct a field survey plan as expected, the reviews on the available documents/reports and maps and initial identification of HCV had to be done. Precise and systematic stages of activities to enhance the success of the identification and analysis of the existing HCV included field surveys, data processing, data analysis and synthesis, identification of HCV, analysis of HCV existence, and mapping.

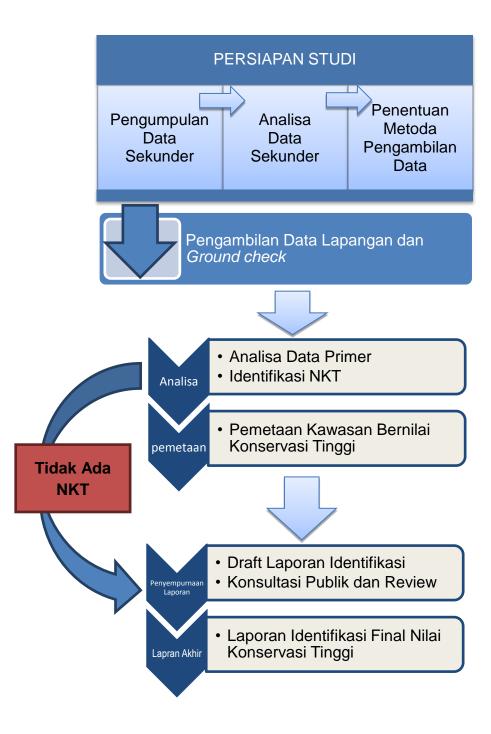


Figure 4. Approach in The Identification and Analysis of HCVs

#### **HCV Identifying Methods**

The assessment covers the cadasteral Map for an area of  $\pm$  7,325.28 and permited area plasma for an area 2,000 ha. which has been approved as the company's project area. Assessments also expanded into villages and other areas which was to be considered on its of relevance of importance to the proposed plantation area. The field survey was conducted on 7 April - 13 April 2013.

In the process, each observation team was accompanied by the field staff from the company and local representatives who are familiar with the site. Besides field activities, the team also collected information from the local people through individualistic interviews, Focus Group Discussion (FGD), as well as public consultations. At the same time, confirmation and cross checking of the findings were carried out with the local people using the technique of purposive sampling – which included the socialites and the related interest parties.

The understanding and scope of HCV for the oil palm plantation sector refers to the HCVF definitions which apply to the forestry sector. The Identification of High Conservation Value in Indonesia was developed by the *Konsorsium Revisi HCV Toolkit Indonesia* (2008) - the toolkit for the revision HCV consortium. Other references used were IUCN, CITES, and other guidelines as well as the relevant laws and regulation of Indonesia.

## **Summary of Assessment Findings**

## **Environment Impact Assessment**

The development of oil palm plantation and palm oil mill of PT. NKU in Cempaga Hulu, kotawaringin Timur Regency raises awareness of the environmental impact on the physical-chemical, biological, and social, economic, cultural and local public health, both positive and negative impacts. In the implementation of plantations development and palm oil mill of PT. NKU, one aspect of which is the main consideration is the preservation of the environment, to ensure sustainable development.

The EIA study of the plantations activity and palm oil mill of is a single EIA activities / projects. The scoping study of the area boundary for Environmental Impact Assessment (EIA) of Oil Palm Plantation activities consider four (4) factors, namely: limit project / activity, ecological boundaries, social boundaries and administrative boundaries.

Plantation activities and palm oil mill was predicted to impact the environment, so it needs to be explored in depth including the four phases of activities: Pre-Construction Phase, Construction Phase, Operational Phase and Post-Operational Phase.

Magnitude and importance of the impact that needed attention in the study of EIA Plantation and Palm Oil Mill of PT NKU at pre-construction phase, is a change in attitudes and perceptions and containing social unrest. At this phase the identified activities to be explored is the socialization and boundary demarcation and land acquisition.

Magnitude and importance of the impact that needed attention in the construction phase is a decrease in air quality and noise levels, decrease in the quality of surface water, land and forest fire potential, decreased in the diversity of flora and fauna species diversity decreased, increase in jobs and business opportunities, increase in incomes, changes in attitudes and perceptions as well as the decrease in public health. At this stage of identified activities could be the mobilization of heavy equipment, manpower recruitment, land clearing, construction of facilities and infrastructure, seeding and planting, maintenance of immature plants, factory construction and waste water treatment plant, construction of water channels and roads.

Magnitude and importance of the impact that needed attention at the operation phase is the reduction of air quality and increased in noise level, increased job and business opportunities, increase incomes, changing attitudes and perceptions, decreased levels of public health in the study area. At this stage the identified activities could be nursery, FFB harvesting and transport, mobilization of heavy equipment and maintenance of oil palm trees.

Magnitude and importance of the impacts that needed attention at the post operation phase is the reduction of air quality and increased in noise level, decrease of local income, changing attitudes and perceptions, and community unrest. At this phase the identified activities could be labor dismissals, demobilization of heavy equipment, reforestation and revegetation, and also land handover to government and community.

Changes in some aspects of the environment (abiotic, biotic, social, economic, cultural and public health) in District Cempaga Hulu, Kotawaringin Regency, due to these activities require further tightening in the utilization of available natural resources and optimizing the management and monitoring efforts which needed to be integrated into all components of the integrated business.

Magnitude and importance of the impacts that will be managed and monitored in the Environmental Management Plan and Environmental Monitoring Plan based on the results of the impact evaluation are: 1) Physical-chemical environment components include air quality, surface water quality, and forest fires potential; 2) Social culture and public health components including: social unrest, job and business opportunities, perceptions, local revenue and public health level.

Environmental management of the environmental components that are experiencing fundamental changes, both positive and negative as a effect of the Oil Palm Development plan of PT NKU to be carried out in terms of the three approaches, are: technological, socio-economic-cultural and institutional.

The implementation of environmental monitoring carried out by PT NKU. The environmental monitoring reports will be submitted annually to the technical adviser of the government agencies

#### **Social Impact Assessment**

# **Demography and Village Density around PT NKU**

The population of Cempaga Hulu district based on the Kotawaringin Regency Figures 2010 is 23,905 people. With an area of 1,183 km², the population density in the district Cempaga hulu is 20.20 people/km². Population in Tumbang Koling village is 1,734 people, with an area 44.50 km² the population density is 39 people/km².

The number of people in a particular region or community will raise the cost of environmental health, which will implicate on the quality of health of each individual in the community.

#### **CONCLUSIONS AND RECOMMENDATIONS**

issues which occurred in PT NKU classified into two areas:

#### **External Issues**

The company has not provided a contribution to the socio-economic conditions of local communities. Different livelihood with farming causing local employment not continuous. In general, local people prefer to work mining gold ( while occasionally tapping rubber ) of the employee must be bound as an oil palm plantation.

Besides the lack of social management program (CSR) which resulted in the emergence of sustained negative perceptions of local residents to the presence of oil companies in the area around their village that is considered less concerned. This is a bad precedent for the oil companies concerned where this condition is always used as the main reason for requesting assistance to existing companies in the area around their village. External problem is the demand for companies to establish smallholdings through a partnership. Through the management of PT. NKU is old, it is already been negotiated yet to be acquired by the BGA Group has not reached an agreement. ( When the SIA study done efforts by the management of PT . NKU new to do a new agreement on the partnership ). Disappointment residents are getting piled by various promises of oil palm plantation company that to this day still carry out its activities. For them the influx of new wind BGA Group is again reviving hopes that the discourse smallholdings can be realized as soon as possible.

Significant issues that must also be considered by the management of PT. NKU is planning a new CSR programs are sustainable. During this habit only company providing direct assistance when citizens apply . It is wise for the new management of PT. NKU took the initiative to implement various development programs which of course it can be synergized with CSR programs of other palm oil companies in the region tumbles Koling village .

## **Internal Issues**

Internal conditions is also important to be considered by the company. Often the oil palm plantation company more responsive to external address issues related to CSR programs primarily due solely intended for social security. On the other hand the internal conditions forgotten in terms of employees is spearheading a significant effort to determine the sustainability of oil palm plantations.

- Similarly, faced by the new management of PT. NKU, where employees are still many who have not felt an increase in welfare since joining in oil plantation PT. NKU. For this new management is a challenge and a new breakthrough moment for the conduct of activities so that the ideal goal can be achieved namely palm plantations welfare of employees and the surrounding community.
- The thing that is most expected by the employees of the new management is the lack of transparency in awarding premiums that have been overlooked by the management of PT. NKU old. Not to the creation of good industrial relations between the employees and management of the company needs to be a concern for the management of PT. NKU new.
- As we know that most of the employees of PT. NKU came from outside the main island of Java and NTT. Their arrival is indeed to work and trying to change the fate of the hope of improving the standard of living where it is difficult to realize in their hometown. High work ethic are appropriately considered by companies that have become liabilities.

#### **CONCLUSIONS AND RECOMMENDATIONS**

In general, PT NKU oil palm plantation development plan in Tumbang Koling in Cempaga Hulu district in Kotawaringin Timur regency has some social issues in the community which will be the basis of social sustainability for the people around the plantation. The conclusions of this social impact assessment are as follows:

Table 6. Internal and External Impact of PT. Nabatindo Karya Utama

NO.	SOURCE OF IMPACT.	IMPACT OF MANAGEMENT
	INTERNAL IMPACT	
1.	Infrastructure Construction	<ul> <li>Coordination with other companies in CSR programs</li> <li>Conduct a SWOT analysis of the new program or who have implemented</li> <li>Conducting appropriate program priorities</li> <li>To evaluate the success rate of the program</li> </ul>
2.	The Partnership	<ul> <li>Resolving GRTT the principle of win-win solution.</li> <li>Establish a cooperative that represents all the aspirations of the local farmer res</li> <li>Distribution smallholding fair and transparent.</li> </ul>
3.	Employment Opportunities	<ul> <li>Conduct training according to their talents and interests of local residents.</li> <li>Implement empowerment programs of the woman</li> </ul>
4.	Business Opportunity	<ul> <li>Implement programs to empower the household economy.</li> <li>Mentor (entrepreneurship)</li> <li>Conducting a SWOT evaluation of the program has been running.</li> </ul>
5.	Increased Income	<ul> <li>Conducting assistance for business development of domestic economy</li> <li>Training Cooperative.</li> </ul>
6.	Environment and Public Health	<ul> <li>Identify cultural elements associated with patterns of health care</li> <li>Exploring knowledge of traditional medicine</li> <li>Identify patterns of resource utilization medication (curative, preventive, and rehabilitative)</li> </ul>
	EXTERNAL IMPACT	
1.	Industrial relationsl	<ul> <li>Rewarding employees.</li> <li>Identify facilities and infrastructure that support the effectiveness of the work</li> <li>Evaluating the performance of the employee's.</li> </ul>
2.	Carier path	<ul> <li>Promotion and recommendations.</li> <li>Development through education.</li> <li>Implement expressly punishment and reward.</li> </ul>
3.	Salary and allowance benefits	<ul> <li>Establish cooperative employees.</li> <li>Adjustment of salaries and allowances.</li> </ul>
4.	facility employees	<ul> <li>Health service facilities (polyclinics)</li> <li>Facilities education (early childhood, kindergarten, and elementary)</li> <li>Economic facilities (Cooperative Employee)</li> <li>Entertainment facilities (arts and sports)</li> </ul>

#### **HCV** Assessments

#### **Physical**

Climatic conditions in the Simpang hulu and Simpang Dua are similar to other tropical areas where condition are classified into rainy and dry seasons. Generally, the rainy season occurs between October to March, while the dry season occurs between April and September. The duration of both of this season fluctuate, at times with longer dry season or a longer rainy season.

The physiography shows a land surface that can be a factor in the process of soil formation, giving effect to the development of land. Based on the slope map, most of the land are flat (0-8%) an area 52.26% of total the area, undulating (8-15%) cover an area of 41.97% of the total area and moderate step (15-25%) an area of 5.77% of the total area.

The Plantation areas and the Processing Plant of PT NKU are located in an area with a height of 22-85 m above sea level (asl). The important factors in soil formation are the parent material because it influences the physical and chemical structures of the soil. Almost all of the entire studied area is dominated by 3 land class system: bawin cover an area of 47.22% of total area, Honja covers an area of 15.17% of total area and Pakau covers an area of 37.62% of total area.

The working area of PT NKU includes Mentaya River watershed. The rivers that crossed the area are as many as 8 rivers and creeks. Drainage patterns in the area of PT NKU is dominated by one river, the Mirah. Use of rivers by the community is not still intensive for use.

# **Biological**

#### **Flora**

There are 60 species found in the area of PT. NKU, Based on the plant class, plant species found in the working area of PT. NKU can be categorized based on the habitat, the composition of vegetation in the area can be differentiated into the 7 (seven) kinds of shrubs, palms, epiphytes, shrubs, lianas, herbs and trees.

Only one of the flora named above are in the "protected" species under PP. 7 / 1999 is *Nepenthes mirabilis*. The assessment identified 4 plant species that are included in the List of the IUCN Red List ( 3 species is EN / Endangered and 1 species VU / Vulnerable) and 1 species that are included in CITES Appendixs with the details as presented in **Table 7**.

Table 7. List of Plant Species Found in the Area of PT. NKU Based on Their Status

	Name Latel			Status			
No	Nama Lokal	Nama Latin	Famili	Habitus	IUCN	CITES	PP 7
1	Akar kekait	Uncaria sclerophylla	Rubiaceae	Liana	-	-	-
2	Akar Simpur	Tetracera fagifolia	Dilleniaceae	Liana	-	-	-
3	Alang-alang	Imperata cylindrica	Poaceae	Herba	-	1	1
4	Alau	Baeckea frutescens	Myrtaceae	Pohon	-	1	1
5	Anggrek pohon		Orchidaceae	Semak	-	1	-
6	Asam	Garcinia rostrata	Clusiaceae	Pohon	-	-	-
7	Bambu	Bambusa sp	Poaceae	Semak	-	1	1
8	Bantengan	Vitis thyrisflora	Vitaceae	Liana	-	ı	ı
9	Bejangkang	Xylopia fusca	Annonaceae	Pohon	-	-	-
10	Benuas	Shorea laevifolia	Dipterocarpaceae	Pohon	-	-	1
11	Bintangur	Callophyllum retusum	Clusiaceae	Pohon	-	-	-
12	Bruta	Gleichenia linearis	leicheniaceae	Semak	-	1	-
13	Empaning	Quercus bennettii	Fagaceae	Pohon	-	-	-
14	Geronggang	Cratoxylon arborescens	Clusiaceae	Pohon	-	-	-
15	Jabung	Erigeron linifolius	Asteraceae	Herba	-	-	-
16	Jambu-jambu	Eugenia cuprea	Myrtaceae	Pohon	-	-	-
17	Jangkang	Xylopia malayana	Annonaceae	Pohon	-	-	-
18	Jelutung	Dyera costulata	Apocynaceae	Pohon	-	-	-

					Status		
No	Nama Lokal	Nama Latin	Famili	Habitus	IUCN	CITES	PP 7
19	Karamunting	Rhodomyrtus tomentosa	Myrtaceae	Perdu	-	-	-
20	Karet	Hevea brasieliensis	Euphorbiaceae	Pohon	-	-	-
21	Kayu Batu	Homalium foetidum	Dipterocarpaceae	Pohon	-	-	-
22	Kayu Malam- malam	Diospyros bantamensis	Ebenaceae	Pohon	-	-	-
23	Kedawung	Parkia javanica	Fabaceae	Pohon	-	-	-
24	Kelakai	Stenochlaena palustris	Pteridaceae	Semak	-	-	-
25	Kembayau	Santiria laevigata	Burseraceae	Pohon	-	-	-
26	Kempas	Koompassia malaccensis	Fabaceae	Pohon	-	-	-
27	Keranji	Dialium indum	Caesalpinaceae	Pohon	-	-	-
28	Keruing	Dipterocarpus sp	Dipterocarpaceae	Pohon	-	-	-
29	Ketiau	Ganua motleyana	Sapotaceae	Pohon	-	-	_
30	Mahabawak	Shorea smithiana	Dipterocarpaceae	Pohon	EN	-	-
31	Mahang	Macaranga pruinosa	Euphorbiaceae	Pohon	-	-	_
32	Medang keladi	Alseodaphne falcata	Lauraceae	Pohon	_	-	_
33	Medang Perawas	Litsea tuberculata	Lauraceae	Pohon	_	_	_
34	Mentibu	Dacrylocladus stenostachys	Crypteroniaceae	Pohon	_	_	_
35	Meranti batu	Shorea dasyphylla	Dipterocarpaceae	Pohon	EN		
36	Meranti bunga	Shorea sp	Dipterocarpaceae	Pohon	EN		
37	Mikania	Mikania michrantha	Asteraceae	Liana			
38	Nangka	Artocarpus heterophyllus	Moraceae	Pohon	-	-	
39	Pakis Kawat	Dryopteris linearis	Polypodiaceae	Herba	-	_	
40	Paku rawa	Nephropelis radicans	Oleandraceae	Herba	_	-	
41	Pantung	Dyera lowii	Apocynaceae	Pohon	_	-	
42	Pasak bumi	Eurycoma longifolia	Simarubaceae	Perdu	_	_	
43	Pelawan	Tristania obovata	Myrtaceae	Pohon	-	-	-
44	Pelawan Putih	Tristania maingayi	Myrtaceae	Pohon		-	
45	Perdang	Cyperus pilosus	Liliopsida	Herba	_	-	
46	Perepat	Combretocarpus rotundus	Anisophylleaceae	Pohon	_	_	
47	Pisang	Musa paradisaca	Musaceae	Perdu	_	-	
48	Putri malu	Mimosa pudica	Fabaceae	Herba	_	-	
		·	Thymelaeaceae	Pohon		- A DD II	-
49	Ramin	Gonystylus bancanus		Pohon	VU	APP II	
50	Resak	Vatica rassak	Dipterocarpaceae	Liana	-	-	-
51	Rotan	Calamus caesius	Arecaceae		-	-	-
52	Sampinur	Dacrydium elatum	Podocarpaceae	Pohon	-	-	-
53	Sirih Hutan	Piper miniatum	Piperaceae	Epifit	-	-	-
54	Temahas	Memecylon excelsum	Melastomataceae	Pohon	-	-	-
55	Terap	Artocarpus elasticus	Moraceae	Pohon	-	-	-
56	Terentang	Campnosperma macrophyllum	Anacardiaceae	Pohon	-	-	-
57	Ubah	Eugenia spicata	Myrtaceae	Pohon	-	-	-
58	Ubar	Garcinia balica	Clusiaceae	Pohon	-	-	-
59	Ubar Putih	Eugenia eucoxylum	Myrtaceae	Pohon	-	-	-
60	Kantung Semar	Nepenthes mirabilis	Nepentheceae	Liana			٧

There were 94 species of wildlife found in the area of PT NKU and grouped in 39 families that consist of Mammals 10 species (9 families), Aves 79 species (25 families) and Reptile 5 species (5 families).

There are 27 species that are protected by Government Rule No 7/1999. Based on CITES, there are 18 species i.e. 4 species of Appendix I, 14 species of Appendix II.

Whereas, 94 species are included in IUCN RED LIST that consist of NT/Near Threatened 3 species, VU/Vulnerable 4 species and EN/Endangered 3 species (see **Table 8**).

**Table 8.** Wildlife Species in the Area of PT. Nabatindo Karya Utama Based on Their Status

No   Naja sumatrana   Elapidae   Napı	Conservation status			
Kijang   Muntiacus muntjak   Cervidae	PP NO 7			
Pelanduk kancil Tragulus javanicus Tragulidae Monyet Ekor panjang Macaca fascicularis Cercopithecidae EN App II Orang utan Pongo pygmaeus Pongidae EN App II Landak raya Hystrix brachyura Hystricidae EN App II Berang-berang Lutra perspicillata Mustelidae EN App II Rusa Timor Cervus timorensis Cervidae VU REPTILE Senyulong Tomistoma schlegelii Crocodylidae EN App II Senyulong Tomistoma schlegelii Crocodylidae EN App II Ura sanca Varanidae EN App II Elang hitam Lictinaetus malayensis Accipitridae App II Elang hitam Ictinaetus malayensis Falconidae App II Auga Iapa-alap erasia Folco timuculus Falconidae App II Alap-alap capung Microhierax fringillarius Falconidae App II Punai lengguak Treron curvirostra Columbidae App II Punai bakau Treron fulvicollis Columbidae NT Punai bakau Treron fulvicollis Columbidae NT Punai Busukau Anthreptes migalensis Cuculidae NT Punai bakau Treron rusa Columbidae NT Punai bakau Anthreptes malacensis Nectarinidae NT Punai basar Centropus bengalensis Nectarinidae Nacipitridae Nacipi				
Pelanduk kancil   Tragulus javanicus   Tragulidae   App II	٧			
4 Monyet Ekor panjang Macaca fascicularis Cercopithecidae App II 5 Orang utan Pongo pygmaeus Pongidae EN App I 6 Landak raya Hystrix brachyura Hystricidae 7 Kucing kuwuk Felis bengalensis Felidae 8 Trenggiling, Peusing Manis javanica Manidae EN App II 9 Berang-berang Lutra perspicillata Mustelidae App II 10 Rusa Timor Cervus timorensis Cervidae VU  REPTILE 1 Kobra Naja sumatrana Elapidae EN App I 2 Senyulong Tomistoma schlegelii Crocodylidae EN App II 3 Biawak Varanus solvator Varanidae App II 4 Ular sanca Pyhton reticulatus Pythonidae App II 5 King kobra Ophiophagus hannah Elapidae VU App II 6 Langa hitam Ictinaetus maloyensis Accipitridae App II 7 AVES Falco Innuculus Falconidae App II 8 Alap-alap erasia Falco tinnuculus Falconidae App II 9 Punai besar Treron capellei Columbidae 7 Punai bakau Treron curvirostra Columbidae 7 Punai bakau Treron fulvicollis Columbidae 8 Punai Gading Treron vernans Columbidae 9 Delimukan zamrud Chalophaps indica Columbidae 10 Burung-madu belukar Anthreptes singalensis Nectariniidae 11 Bubut besar Centropus bengalensis Nectariniidae 12 Burung madu Anthreptes malocensis Nectariniidae 13 Bubut alang-alang Centropus bengalensis Cuculidae 14 Elarap brontok Spizetus cirrhatus Accipitridae 15 Walet sarang putih Collocalia exculenta Apodidae 16 Walet sarang hitam Collocalia maxima Apodidae 17 Walet sarang hitam Collocalia maxima Apodidae 18 Walet sarang meninting Alcedo	٧			
Source   Pongo pygmaeus   Pongidae   EN   App	٧			
6 Landak raya				
7 Kucing kuwuk Felis bengalensis Felidae 8 Trenggiling, Peusing Manis javanica Manidae EN App II 9 Berang-berang Lutra perspicillata Mustelidae App II 10 Rusa Timor Cervus timorensis Cervidae VU  REPTILE 1 Kobra Naja sumatrana Elapidae EN App I 2 Senyulong Tomistoma schlegelii Crocodylidae EN App I 3 Biawak Varanus salvator Varanidae App II 4 Ular sanca Pyhton reticulatus Pythonidae App II 5 King kobra Ophiophagus hannah Elapidae VU App II 1 Elang hitam Ictinaetus malayensis Accipitridae App II 2 Alap-alap erasia Falco timuculus Falconidae App II 3 Alap-alap capung Microhierax fringillarius Falconidae App II 4 Punai lengguak Treron curvirostra Columbidae 5 Punai besar Treron capellei Columbidae 6 Tekukur biasa Streptopelia chinensis Columbidae 7 Punai bakau Treron fulvicollis Columbidae 8 Punai Gading Treron vernans Columbidae 9 Delimukan zamrud Chalophaps indica Columbidae 10 Burung-madu belukar Anthreptes singalensis Nectariniidae 11 Bubut besar Centropus sinensis Cuculidae 12 Burung madu Anthreptes malacensis Nectariniidae 13 Bubut alang-alang Centropus sinensis Cuculidae 14 Elarang brontok Spizetus cirrhatus Accipitridae 15 Wiwik lurik/ukit Cacomantis sonneratii Cuculidae 16 Walet sarang putih Collocalia maxima Apodidae 17 Walet sarang hitam Collocalia maxima Apodidae 18 Walet sapi Collocalia esculenta Apodidae 19 Kepinis jarum kecil Rhapidura leucopygialis Apodidae	٧			
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Berang-berang   Lutra perspicillata   Mustelidae   App II	٧			
Rusa Timor   Cervus timorensis   Cervidae   VU   REPTILE	٧			
REPTILE       Naja sumatrana       Elapidae       App I         1 Kobra       Naja sumatrana       Elapidae       App I         2 Senyulong       Tomistoma schlegelii       Crocodylidae       EN       App I         3 Biawak       Varanus salvator       Varanidae       App II         4 Ular sanca       Pyhton reticulatus       Pythonidae       App II         5 King kobra       Ophiophagus hannah       Elapidae       VU       App II         AVES       Telangta       Accipitridae       App II         1 Elang hitam       Ictinaetus malayensis       Accipitridae       App II         2 Alap-alap erasia       Falco tinnuculus       Falconidae       App II         3 Alap-alap capung       Microhierax fringillarius       Falconidae       App II         4 Punai lengguak       Treron curvirostra       Columbidae       App II         5 Punai besar       Treron capellei       Columbidae       Columbidae         6 Tekukur biasa       Streptopelia chinensis       Columbidae       NT         7 Punai bakau       Treron fulvicollis       Columbidae       NT         8 Punai Gading       Treron vernans       Columbidae       NT         9 Delimukan zamrud       Chalophaps indica       C				
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12       Burung madu       Anthreptes malacensis       Nectarinidae         13       Bubut alang-alang       Centropus bengalensis       Cuculidae         14       Elarang brontok       Spizetus cirrhatus       Accipitridae         15       Wiwik lurik/ukit       Cacomantis sonneratii       Cuculidae         16       Walet sarang putih       Collocalia fuciphaga       Apodidae         17       Walet sarang hitam       Collocalia maxima       Apodidae         18       Walet sapi       Collocalia esculenta       Apodidae         19       Kepinis jarum kecil       Rhapidura leucopygialis       Apodidae         20       Raja udang meninting       Alcedo meninting       Alcedinidae				
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15 Wiwik lurik/ukit Cacomantis sonneratii Cuculidae  16 Walet sarang putih Collocalia fuciphaga Apodidae  17 Walet sarang hitam Collocalia maxima Apodidae  18 Walet sapi Collocalia esculenta Apodidae  19 Kepinis jarum kecil Rhapidura leucopygialis Apodidae  20 Raja udang meninting Alcedo meninting Alcedinidae				
16     Walet sarang putih     Collocalia fuciphaga     Apodidae       17     Walet sarang hitam     Collocalia maxima     Apodidae       18     Walet sapi     Collocalia esculenta     Apodidae       19     Kepinis jarum kecil     Rhapidura leucopygialis     Apodidae       20     Raja udang meninting     Alcedo meninting     Alcedinidae				
17     Walet sarang hitam     Collocalia maxima     Apodidae       18     Walet sapi     Collocalia esculenta     Apodidae       19     Kepinis jarum kecil     Rhapidura leucopygialis     Apodidae       20     Raja udang meninting     Alcedo meninting     Alcedinidae				
18     Walet sapi     Collocalia esculenta     Apodidae       19     Kepinis jarum kecil     Rhapidura leucopygialis     Apodidae       20     Raja udang meninting     Alcedo meninting     Alcedinidae				
19     Kepinis jarum kecil     Rhapidura leucopygialis     Apodidae       20     Raja udang meninting     Alcedo meninting     Alcedinidae				
20 Raja udang meninting Alcedo meninting Alcedinidae				
21 Raja udang kalung biru Alcedo euryzona Alcedinidae	٧			
	٧			
22 Pekaka emas/bekaka <i>Pelargopsis capensis</i> Alcedinidae	٧			
23 Cekakak batu Lacedo pulchella Alcedinidae	٧			
24 Cekakak sungai Todirhamphus chloris Alcedinidae	٧			
25 Enggang kihingan Annorhinus galeritus Bucerotidae NT App II	٧			
26 Kangkareng hitam Anthracoceros malayanus Bucerotidae NT App II	٧			
27 Cabak maling Caprimulgus macrurus Caprimulgidae				
28 Elang tikus Elanus caeruleus Accipitridae App II	٧			

	Nama Jenis			Cons	Conservation status		
No	Lokal	Ilmiah	Famili	IUCN	CITES	PP NO 7	
29	Kacer	Copsychus saularis	Muscicapidae				
30	Kareo padi	Amaurornis phoenicurus	Rallidae				
31	Kecici	Sitta frontalis	Sittidae				
32	Perenjak	Prinia familiaris	Sylviidae				
33	Pipit	Lonchura malacca	Estrilidae				
34	Puyuh batu	Coturnix chinensis	Phasianidae				
36	Cipoh kacat	Aeghitinia tipia	Chloropseidae				
37	Cipoh jantung	Aegithina viridissima	Chloropseidae				
38	Cipoh kacat	Aeghitinia tipia	Chloropseidae				
39	Cica daun kecil	Chloropsis cyanopogon	Chloropseidae				
40	Cica daun besar	Chloropsis sonnerati	Chloropseidae				
41	Cica daun sayap biru	Chloropsis cochincinensis	Chloropseidae				
42	Cucak rawa	Pycnonotus zeylanicus	Pycnonotidae	VU	App II		
43	Cucak kuricang	Pycnonotus atriceps	Pycnonotidae				
44	Cucak rumbai tungging	Pycnonotus eutilotus	Pycnonotidae				
45	Merbah gunung	Pycnonotus flavescens	Pycnonotidae				
46	Gagak kampung	Corvus macrorhynchos	Corvidae				
47	Cica kopi melayu	Pomatorhinus montanus	Timaliidae				
48	Tepus kepala kelabu	Stachyris poliocephala	Timaliidae				
49	Kucica kampung	Copsychus saularis	Turdidae				
50	Kucica hutan/Tinjau	Copsychus malabaricus	Turdidae				
51	Kucica ekor kuning	Trihixos pyrrhopygus	Turdidae				
52	Perenjak rawa	Prinia flaviventris	Silviidae				
53	Sikatan hijau laut	Eumyas thalassina	Muscicapidae				
54	Kipasan belang	Rhipidura javanica	Muscicapidae				
55	Kehicap ranting	Hypothymis azurea	Muscicapidae				
56	Seriwang Asia	Tersiphone paradisi	Muscicapidae				
57	Sikatan bakau	Cyornis rufigastra	Muscicapidae				
58	Sikatan kerdil	Muscicapella hodgsoni	Muscicapidae				
59	Murai-batu tarung	Monticola solitarius	Muscicapidae				
60	Sikatan kepala-abu	Culicicapa ceylonensis	Muscicapidae				
61	Kerak kerbau	Acridotheres javanicus	Sturnidae				
62	Tiong	Eurystomus orientalis	Coraciidae				
63	Tiong emas/tiung	Gracula religios	Coraciidae		App II		
64	Burung madu polos	Anthreptes simplex	Nectariniidae			٧	
65	Burung madu rimba	Hypogramma hypogrammicum	Nectariniidae			٧	
66	Pijantung kecil	Arachnothera longirostra	Nectariniidae			٧	
67	Burung-madu kelapa	Anthreptes malacensis	Nectariniidae				
68	Burung-madu	Aethopyga siparaja	Nectariniidae				
69	Pijantung kampung	Arachnothera crrasirostris	Nectariniidae			٧	
70	Pijantung besar	Archnothera robusta	Nectariniidae			٧	
71	Pipit benggala	Amandava amandava	Ploiceidae				
72	Bondol hijau binglis	Erythrura prasina	Ploiceidae				
73	Bondol hijau dada merah	Erythrura hyperythra	Ploiceidae				
74	Bondol perut putih	Lonchura leucogastra	Ploiceidae				
75	Bondol kalimantan	Lonchura fuscans	Ploiceidae				
76	Bondol rawa	Lonchura malacca	Ploiceidae				
77	Burung gereja	Passer montanus	Ploiceidae				
78	Kadalan beruang	Phaenicophaeus diardi	Cuculidae				
79	Bangau tongtong	Leptoptilos javanicus	Ciconiidae			٧	

#### **Environmental Services Aspect**

Region or ecosystem that is important as a provider of Water and Flood Control for Downstream Communities.

Region or ecosystem that is found in the area of PT NKU is mainly lowland forest ecosystems and a little peat swamp forests; while the Cloud forest ecosystems, forest ridge and karst ecosystems are not found in the area.

# Important Ecosystem and Its Relationship with the various Classes of Land Based on RePPProT

Ecosystems found in the area of PT. NKU consists of two (2) types, namely lowland forest ecosystems and peat ecosystem. Land classes found in the region consists of five (3) types, namely HJA (Honja), BWN (Bawin) and PKU (Pakau). Based RePPProT and HCV Toolkit (June 2008), land classes HJA, PKU and BWN including the threatened land systems and / or rare. However, because the condition of ecosystems has been much damaged (degraded) due to forest exploitation activities (logging) before any fields/cultivation, and forest encroachment activities (illegal logging), then some of the functions and benefits of ecosystems have degraded.

With regard to technical aspects of the management of oil palm plantations, the presence of lowland forest can be utilized as a land of oil palm cultivation. Similarly shallow peat lands, also technically can be used for oil palm cultivation.

But ecologically, particularly in peat ecosystems (with land system under GBT) will need to consider the legal aspects (relating to Regulation of the Minister of Agriculture No.14 years of 2009 and Presidential Decree No.32 of 1990), as well as other aspects (Prinsip 7 RSPO).

#### Regions that serves as a natural insulation to prevent the spread of forest fires and land

Regions that serves as a natural insulation to prevent the spread of forest fires and natural forest land is still in good condition, including swamp forests in the hydrological system (the peat swamp forest is still intact), swamp forest, inundation areas, other wetland and green lanes (green belt) with various types of fire-resistant plants. In the area of PT. NKU not still area that can serve as a fire breaker.

# **Economy, Socio Culture of Local Community**

Administratively, oil palm plantation of PT NKU is located in Cempaga Hulu district (Tumbang Koling), Kotawaringin Timur Regency, Center Kalimantan Province. Based on the results of field observation and review of existing maps show that areas of High Conservation Value (HCVA) planned in the area of Oil Palm Plantations in the Area of PT NKU, Central Kalimantan Province is 699.72 ha, with details as in **Table 10**.

The identification result of HCV availability at PT NKU is detailed in the below Table 9.

**Table 9.** The Identification Result of HCV Availability at PT Nabatindo Karya Utama Oil Palm Plantation Area

	нсч	HCV AVAILABILITY
1	Area Has Important Biodiversity Level	
1.1	Area Posses or Give Supporting Function of Biodiversity for Protected Area and/or Conservation Area	Available
1.2	Critically Endangered species	Not Available
1.3	Area Has Habitat for Viable Population of Threatened, Circumscribed or Protected Species	Available
1.4	Area Has Temporary Habitat for Species or Group of Species	Available

	нсч	HCV AVAILABILITY
2	Area Has Important Landscape for Naturally Ecological Dynamics	
2.1	The Area of Wide Landscape which has Capacity to Maintain the Process and Dynamics of Naturally Ecology	Not Available
2.2	The Natural Area which has Two or More Ecosystem with not Fragmented Contour (Continuously)	Not Available
2.3	Area which has Representative Population of Natural Species	Available
3	Area which has Rare or Threatened Ecosystem	Not Available
4	Area Provides Natural Environmental Services	
4.1	Important Area or Ecosystem to Provide Water and Flood Control for Community at Downstream Area	Available
4.2	Important Area to Control Erosion and Sedimentation	Available
4.3	Area which Has Function as Natural Border to Avoid the Spread of Forest Fire	Available
5	Natural Area which Has Important Function to Fulfill Basic Needs of Local Community	Available
6	Area has Important Function to Identify Traditional Culture of Local Community	Available

# Analysis Result of the Availability of HCV

The area of Oil Palm plantation PT NKU has 9 HCV Area with 699.06 ha in total area or it is coverage 7.52% out of the total area of Management Unit (9,300 ha). The HCV Area at the area of Oil Palm plantation PT NKU are presented at **Table 10**. The Map of HCV Areas at Oil Palm plantation PT NKU.

**Table 10.** The HCV Area of PT Karya Makmur Langgeng Oil Palm Plantation

Number	HCV Area	HCV Attribute	Area (ha)
1	Sungai Mirah Minting	4.1.	51.21
2	Sungai Mirah Lui	4.1.	42.24
3	Sungai Mirah	4.1.	116.61
4	Anak Sungai Mirah Minting	4.1.	17.83
5	Sungai Mirah Hujan	1.1; 1.3; 1.4; 2.3; 4.1.	53.13
6	Sungai Koling	4.1.	26.89
7	Sungai Sandung	4.1.	14.42
8	Sungai Batur	4.1.	42.11
9	Areal Berhutan blok S22-29, T22-27, U23-26	1.1; 1.3; 1.4; 2.3	334.61
	Total		699.06

Figure 5. HCV Map PT NKU overlay with Measurement Map (nucleus) and Plasma in total area ± 9,300 Ha

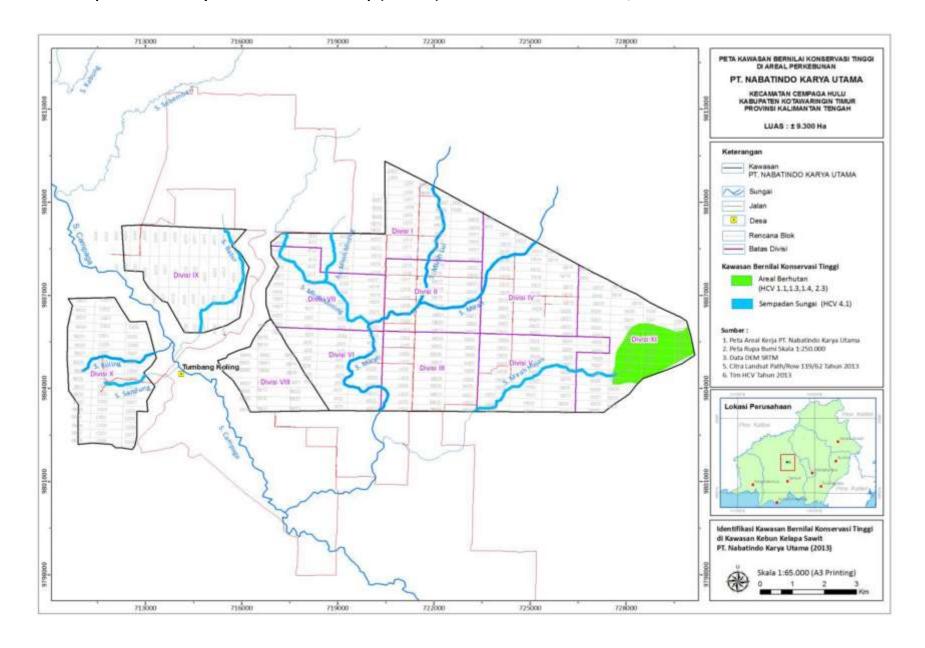
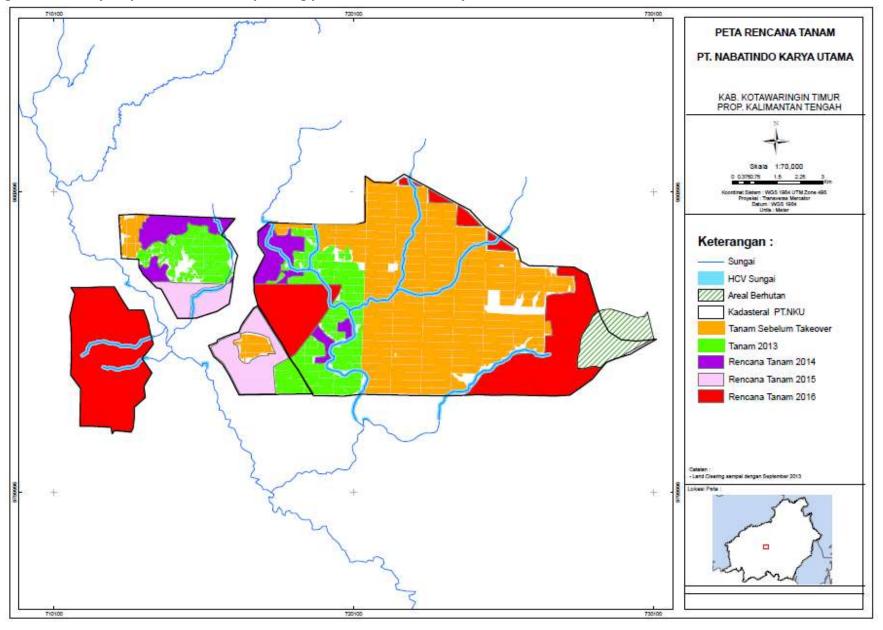


Figure 6. Overlay map of HCV area and planting plan PT Nabatindo Karya Utama



#### **DOCUMENTATION OF FREE PRIOR AND INFORMED CONSENT**

In accordance with RSPO requirements PT NKU needs to obtain free, prior and informed consent from the local community that would be affected by the development of the concession area or land that proposed for On-Going NPP. The documents are as follows:

- In conclusion on Minutes of Land Use Rights Committee-B (HGU Risalah Panitia B) No: 03/PPTB/IX/2008 dated 18 September 2008, stated that area of 7,325.28 Ha is owned by State, however during the land acquisition which owned/cultivated by communities it has been compensated in totally IDR 260,000,000. Thus its area fully controlled and usage by PT NKU.
- 2. Takeover from previous management to becoming current company (under BGA Group) undertaken in 2013. Recapitulation of land compensation in area 1,758.58 Ha has been compensated by PT NKU during period June-September 2013. The detail are as follows:
  - IOM No: 001/PAD-D&L/GRTT/NKU-SAME/06-13 size area 477.88 Ha.
  - IOM No: 001/PAD-D&L/GRTT/NKU-SAME/07-13 size area 1,241.47 Ha.
  - IOM No: 001/PAD-D&L/GRTT/NKU-SAME/09-13 size area 39.23 Ha.
- 3. Progress of oil palm plantation allocated for smallholders has developed 147 Ha of 1,450 Ha (10.14%) with pattern 70 : 30 based on location permit (9,300 Ha).
- 4. As a form of highly commitment to conserve endangered wildlife species (Orangutan), PT NKU has statement with Borneo Orangutan Survival Foundation (BOSF) which signed by Internal Management and BOSF representative dated 15<sup>th</sup> January 2014. This statement will becoming agreement after the BOSF team finished their field report.

#### **SUMMARY OF PLAN:**

PT Nabatindo Karya Utama (PT NKU) is a subsidiary of Bumitama Agri Limited (BAL), a member of RSPO and located in Cempaga Hulu District, Kotawaringin Timur regency, Central Kalimantan Province. The Consent License based Permitted area (or called Location Permit/IjinLokasi) No. 803 year 2005 was approved on 15 August 2005 for an area of  $\pm$  11,000 ha ( $\pm$  9.000 ha nucleus and  $\pm$  2.000 ha Plasma).

The HCV Assessment was conducted for the cadasteral Map Number 34-15.05-2008 that was approved on 19 May 2008, for an area of  $\pm$  7.325.28 and permitted area plasma for an area 2,000 ha. There are 3 types of HCV identified by the assessment and these are HCV 1 (1.1, 1.2, 1.3 and 1.4), HCV 2 (2.3), and HCV 4 (4.1).

The Environment Impact Assessment (EIA/AMDAL) was approved by the regent of Kotawaringin Timur (SuratKelayakanLingkungan No 496 year 2009 dated on 31October 2009). Besides fulfilling the regulatory requirements of conducting environmental impact assessment (EIA/ AMDAL), the company has also conducted and completed the High Conservation Values Identification (HCV) and Social Impact Assessment (SIA) from April to May 2013 by independent consultants from PT Sonokeling Akreditasi Nusantara.

The results of the HCV assessment by independent consultants from SAN with team personnels that have been approved by RSPO showed that there is no primary forest in the Permitted Area of PT NKU. The vegetation cover is dominated by the rubber (*Hevea brasiliensis*), agroforestry, shrub and degraded forest. Based on The Report of Semi Detail Soil Survey Assessment by the Research Department of PT BGA, indicated that peatland was found in the Permitted Area (Location Permit/ Izin Lokasi).

The key elements for HCV 1 are riparian belt. HCV 2 are area for habitat which has representative population of natural species and HCV 4 are related to the potential damage from riparian belt. The results of the Social Impact Assessments (SIA) has shown that the company's development of oil palm plantation and palm oil mill production has significant and positive impacts toward the local livelihood and the society's social sustainability. The findings have defined how the company's business has can influence the key issues in the respective component of the social sustainability of the local community. There are three basic components description for society's social sustainability that influences the planning of the company's future operation.

The findings on both the HCV and SIA by independent and accredited (by the RSPO) consultants from SAN have been incorporated in the oil palm development plan of PT NKU which includes the HCV and SIA management and monitoring plans. Development of the HCV and SIA management and monitoring plans was facilitated by the SAN Team. The purpose of the

workshop on HCV - SIA management and monitoring program for PT NKU was to enable the management team to have a better understanding of the HCV and SIA findings and their related implications so as to provide reference points in developing the operational activities of the company related to the HCV, social managements synergy with the company's development of oil palm plantation.

Theproposed new planting area by PTNKU is in the location of the Plantation Business Permit (Izin Usaha Perkebunan) which the owners of the land have received the FPIC (free, prior and informed consent). Land development and planting of oil palm will begin in 2014 following the procedures of the RSPO New Planting Procedures (NPP).

**Table 11.** Estimation of new plantings area and time-plan for new planting Nabatindo Karya Utama

Year Planting (ha)								
2014	2014 2015 2016 total							
465	525	2320	3315					

# **Summary of Management and Mitigation Plans on Environment Impact Assessment**

 Table 12. Summary of Management and Mitigation Plans on Environment Impact Assessment

					Environment Manage	ment	Environmen	t Monitoring	
No	Action	Impact	Source of Impact	Location	Plan	Period	Plan	Period	
	Pre Construction St	age	l		L	•			
1	Socialization	Attitudes and perception, also social conflict between companies and communities	Ignorance and misinformation the public against the company's plans in development of oil palm plantations	Tumbang Koling Village	Meeting directly with the communities to socialized the oil palm plantation development     Give the informations related with the activity plan by regular meetings in the village     Explain the environmental management efforts will be carried out     Explain the positive impact to the communities through oil palm plantations	Socialization the development of oil palm plantation carried out at least 4 months before the opening of the land. And 4 times during the land clearing.	Direct observation and interviews with the surrounding community by using questionnaires and deep interviews	Every 6 month	
2	Land Acquisition	Advent of Negative attitudes and perceptions of society, community dissatisfaction with land compensation, also rise of social conflicts between companies and communties	Process of land acquisition and compensation are harmful to society	Tumbang koling Village	Take inventory of pblic lands contained in the project area along with regency officials, district and village Meetings related to the completion of land Carry out the land acqusition process and compensations according the agreement Enclave of existing permissions if the community don't want to exempt land Documentation all aof land acquisition activity	During the process of land acquisitions	Direct observation and interviews with the surrounding community by using questionnaires and deep interviews	Every 6 month	
	Construction Stage								
1	Recruitment	Rise of negative attitudes and perceptions, social conflict and social resentment	Recruitment process without transparency, and do not give priority to local	• Tumbang Koling Village	Provide broad information to the public regardng recruitment     Priority to local employment with the necessary qualifications attention	During te recruitment process	Direct observation and interviews with the surrounding community by using questionnaires and	Every 6 month	

No	Action	Import	Course of Impact	Location	Environment Manage	ment	Environmen	t Monitoring	
No	Action	Impact	Source of Impact	Location	Plan	Period	Plan	Period	
			employment, although according with the qualification				deep interviews		
2	Mobilization of equipment and materials	Increasement of road damage and accidents	Process of transporting equipment and materials during the construction phase	<ul> <li>Along the road of transport equipment and materials</li> </ul>	Collaborate with traffice police to guard during the mobilization of heavy equipment Using the standard trucks according road capacity to carry the materials Reduce speed when passing through resedential areas	During the process of equipment dan materials mobilization	Recordingwork accidentat the time ofthe mobilization ofequipmentandma terialsactivities	Every 6 month	
3	Open and land clearing	Smog haze due to land fires	Lax     oftheemployee     whowasinvolve     dintheclearance     whenusingfire	• Cleared areas	Land clearing without burning     Put a signboard on fire-prone lands and warning signs to be cautious in he use of fire     Provide the facilities and infrastructure of fire emergency response     Make the water ponds around tha plantation as a source of water to extinguish fire in case of fire hazzard	Once every 3 months during the land clearing process	Recorded theoccurrenceof fire Researching thecause of the firesource		
		Increasment of erosion rate	Changes inland coversothe rainwaterdirectl yonthe soil surface	• Cleared areas	Cover crop treatments	Selama ada pembukaan lahan	Makinglevelmeasur ementinstrumentm easuringerosionand erosion rates Samplingproperties ofthe physicalpropertiesa nd chemicalanalysis	Every 6 month	
4	Nursery	Occurence of eutrophication due to entrainment of partial fertilizer that's not absorbed ny the rain to the river	Use of manure that doesn't comply with the dosage and timing of manuring	Nursery Areas	Research the meeds of optimum manure     Provide the right dosage of manure, a measure, quantity and timing     Make the Manuring Procedure     Socialized to the nursery workers about a good and right manuring system	Twice a year during the Manuring activity	Samplingproperties ofthe physicalpropertiesa nd chemicalanalysis	Every 6 Month	

Na	Action	lan and the	Course of leavest	Lasation	Environment Manage	ment	Environmen	t Monitoring	
No	Action	Impact	Source of Impact	Location	Plan	Period	Plan	Period	
5	Construction of Plantation Infrastructure	Open up the job opportunities	Labor requirements for the construction and supply of building materials	Location of plantation developme nt	Open up the employment opportunities for local communities Partnership with the local community in the supply of food Open oppotunities to local communities especially people with carpentry building skills	Once a year during the plantation development process	counting the number of villagers who are involved directly or indirectly	Every 1 year	
6	Immature Plant maintenance	Occurence of eutrophication due to entrainment of partial fertilizer that's not absorbed ny the rain to the river. And water pollution due to use of pesticides that incompatible with the dosage	Use of manure and pesticides that aren't in accordance with the dosage and timing	• Plantaton Areas	Research the meeds of optimum manure and needs for perticides for integrated pest control     Provide the right dosage of manure, a measure, quantity and timing     Implement the integrated pest control     Make the Manuring and Usage of Pesticids Procedure     Socialized to the workers about a good and right manuring and pest control system     Conduct biological pest control	Twice a year during the Manuring activity	Sampling and measurement of water quality in the Mirah river	Every 6 month	
	Operational Stage			•	•				
1	Mature Plant Maintenance	Occurence of eutrophication due to entrainment of partial fertilizer that's not absorbed ny the rain to the river. And water pollution due to use of pesticides that incompatible with the dosage	Use of manure and pesticides that aren't in accordance with the dosage and timing	• Plantaton Areas	Research the meeds of optimum manure and needs for perticides for integrated pest control Provide the right dosage of manure, a measure, quantity and timing Implement the integrated pest control Make the Manuring and Usage of Pesticids Procedure Socialized to the workers about a good and right manuring and pest control system Conduct biological pest control	Twice a year during the Manuring activity	Sampling and measurement of water quality in the Mirah river		

No	No Action Impact Source of Impa		Course of Impact	Construction of the section	Environment Manage	Environment Management		Environment Monitoring	
NO		Source of Impact	f Impact Location	Plan	Period	Plan	Period		
2	FFB Transport	Increasement number of work accidents	FFB transportation activity	Plantation     Areas	Maintaining damaged roads which dangerous for FFB trucks     Provide traffic signs in the plantation areas     Socialized to the workers and FFB transport contractors     Use nets in a truck so FFB not fall	Every 3 month	Recording and analyzing workplace accidents	Every 6 month	

# **Summary of management and Mitigation Plans (SIA)**

PT NKU has developed the plans for the social impacts as the operational efforts on social mitigation. The SIA development and preparation of management & monitoring plans for PT NKU was mainly based on the SIA result, in corporation with SAN.

The steps taken in the SIA development and preparation of management &monitoring plans were:

Based on the SIA results for PT NKU by SAN aimed to be managed consistently with appropriate work performance standards. The scope of the development and preparation of management & monitoring plans included all of the potential impacts by the plantation activities.

Table 13. Management and Mitigation Plansof Nabatindo Karya Utama

NO	Source of	Impact Management	Indicators of	Location of	Manageme	Management	Monitoring
•	Impact	impact Wallagement	Success	Management	nt Period	Institutions	Period
I.	External						
	Impact						
1.	Development	Coordinate with other company	• Better	<ul><li>Infrastructure</li></ul>	Continous	<ul><li>CSR Dept. in</li></ul>	<ul><li>every 6</li></ul>
	of	to do CSR	education	in the village		each	month
	infrastructure	<ul><li>Do SWOT analysis for new</li></ul>	level.			plantation	
		program and the program which	Improvement			companies at	
		has been implemented	of social			Tumbang	
		<ul> <li>Conduct the program according</li> </ul>	welfare			Koling Areas	
		to priority scale					
		Evaluation of the programs					_
2.	Plasma/	<ul> <li>Resolve the land acquisition</li> </ul>	Progressed a	<ul> <li>Plasma lands</li> </ul>	Continous	<ul> <li>Management</li> </ul>	every 6
	partnership	process with win win sollution	partneship	that have		PT NKU.	month
		■ Forming a cooperative that	plasma system	been planned.			
		represents all the aspirations of	in a				
		local farmer groups  Distribution of smallholders that	transparency Created trust				
		fair and transparent	partneship				
		Tall allu tralisparelit	between				
			communities				
			and company				
3.	Employment	<ul> <li>Conduct trainings in accordance</li> </ul>	Existence of	■ Tumbang	Continous	■ CSR Dept.	• every 1 year
٥.	opportunities	with the talents and interests of	independent	Koling Village	Continious	PT NKU.	every 1 year
	оррогениесь	local residents	small	■ Tumbang			
		■ Do empowerment programs,	businesses	Sanak Hamlet			
		mainly womankind	Increased				
		,	revenue				
			Improvement				
			of social				
			welfare				
4.	<ul><li>Business</li></ul>	■ Do empowerment home	There are at	■ Tumbang	Continous	■ CSR Dept. PT	■ every 1 year
	opportunit	economics program	least 3 types	Koling Village		NKU.	
	ies	<ul><li>Entrepreneurial mentoring</li></ul>	of new	<ul><li>Tumbang</li></ul>			
	Peluang	<ul><li>SWOT evaluation of running</li></ul>	businesses	Sanak Hamlet			
	Usaha	program.					
5.	<ul><li>Increased</li></ul>	<ul> <li>Guidance for the development</li> </ul>	Improvement	■ Tumbang	continous	<ul><li>CSR Dept. PT</li></ul>	• every 1 year
	revenue	of home economics	of social	Koling Village		NKU.	
		<ul><li>Cooperative training.</li></ul>	welfare	■ Tumbang			
				Sanak Hamlet			
	<ul><li>Environme</li></ul>	<ul> <li>Identify cultural elements</li> </ul>	· Improve	■ Tumbang	Continous	CSR Dept. PT	• every 1 year
	ntal and	related to patterns of health care	community	Koling Village		NKU.	
	publlic	<ul> <li>Explore the knowledge about</li> </ul>	health status.	■ Tumbang	1	<ul><li>Local health</li></ul>	

NO ·	Source of Impact	Impact Management	Indicators of Success	Location of Management	Manageme nt Period	Management Institutions	Monitoring Period
	health	etnomedicine Identify utilization patterns of medication resources (curative, preventive and rehabilitation)		Sanak Hamlet		department	
	Internal Impact						
5.	Industrial relationship	<ul> <li>Recognize the employees</li> <li>Identify facilities and infrastucture that support effectivity of works</li> <li>Evaluation of employee performance</li> </ul>	Formation of trade unions . Improvement of employee welfare	■ PT NKU	continous	■ Management PT NKU	every 6 month
6.	Careers	<ul> <li>Promotion and recommendations</li> <li>Trainings</li> <li>Implementation of punishmet and reward is firmly.</li> </ul>	Improved employee performance. Employee loyalty Mobilization within the organizational structure of the company.	■ PT NKU	continous	■ Management PT NKU	• every 1 year
7.	<ul><li>Salary and welfare benefits</li></ul>	<ul> <li>Forming cooperative employees</li> <li>Adjusment of wages and allowances.</li> </ul>	Improved employee performance Employee loyalty	■ PT NKU	continous	<ul><li>Management PT NKU</li></ul>	• every 6 month
8.	<ul><li>Employee facilities</li></ul>	<ul> <li>Health care facilities</li> <li>Educational facilities</li> <li>Economic facilities</li> <li>Entertainment facilities (arts and sports)</li> </ul>	Improved employee performance Employee loyalty	■ PT NKU	continous	■ Management PT NKU	every 6 month

# **Summary of Management and Mitigation Plans (HCV)**

#### The HCV development and preparation of management & monitoring plans

The HCV development and preparation of management & monitoring plans were based on the result of the HCV assessment which was administered in July 2013 by independent consultants from SAN who has been personality accredited and approved by RSPO. This process provides data and information related to the presence of the HCV areas in the Permitted Location (IjinLokasi) of PT NKU, the key HCV elements, the actual conditions included the potential threats, and the recommendations for the management.

The HCV development and preparation of management & monitoring plans were implemented with the aim to provide guideline for the company in planning and management of its programs or activities in managing the HCV present within the concession area. The purpose was to enable all the available resources to be focused, integrated and effective in order to achieve the HCV management outcome. The purposes of this management and monitoring document were:

- To ensure that the identified and assigned HCV areas are under protection and in a well managed state so that their HCV functions are well preserved;
- 2) To enhance the administration of the management and monitoring in the sense that the process carried out is more systematically according to the legal procedures.

# Plan for HCV Monitoring and Regular Review of Data

The basic programs and activities that fulfill the HCV management are in regular monitoring and review. The purpose of review is to measure the achievements, effectiveness, efficiencies, impacts, and sustainability of the programs. Thus, the purpose of monitoring is to evaluate whether the activities run as they are expected; whether the outputs of the process are as they were projected previously; and whether the resources investments (human, fund, time) are as they were planned.

Monitoring and review are aimed to a set of indicators as the key performance indicators and should be managed systematically, consistently, and well documented. The monitoring should be implemented regularly and it is dependent on the classifications of the activities and the target indicator to evaluate the review should be conducted at the end of the management periodical plan, that is in the end of the third years (summative review) and every six months (formative review).

# Management and mitigation plans for threats in HCV areas.

The identified basic activities which are planned to run in order to achieve the basic targets for the enhancement and maintenance of the HCV areas are:

- 1. Identification, documentation and recondition of baseline HCV elements and that threatents.
- 2. Socialization to (management, worker, and local peoples) the HCV area regarding the existence and importance of protecting HCV areas.
- 3. Develop dialogue and facilitate people for making like-minded of HCV management.
- 4. Dialogue with stakeholders, especially government for increasing protecting HCVelements and areas.
- 5. Monitoring of land clearing activity.
- 6. Measuring fluctuation activity of water level on rainy season and dry season as *baseline* in rivers which have the important function as the catchment areas.
- 7. Avoid/minimizing superficial of river with GAP (Group Agriculture Policy) which is land clearing until maintenance and harvesting.
- 8. Recondition and making the policy and procedure (SOP) which is supporting the effectiveness of HCV management.

#### **HCV LOCATION THAT WILL MANAGED BY COMPANY**

HCV location that will be managed by company is location which is included in operational as many as 9,300 Ha, not all location in permit area. That because the location in permit area has some settlement with local people.

Table 14. Area Management Plan HCV PT NKU

Number	HCV Area	HCV Attribute	Area (ha)
1	Sungai Mirah Minting	4.1.	51.21
2	Sungai Mirah Lui	4.1.	42.24
3	Sungai Mirah	4.1.	116.61
4	Anak Sungai Mirah Minting	4.1.	17.83
5	Sungai Mirah Hujan	1.1; 1.3; 1.4; 2.3; 4.1.	53.13
6	Sungai Koling	4.1.	26.89
7	Sungai Sandung	4.1.	14.42
8	Sungai Batur	4.1.	42.11
9	Areal Berhutan blok S22-29, T22-27, U23-26	1.1; 1.3; 1.4; 2.3	334.61
	Total		699.06

 Table 15. Summary of Management and Mitigation Plans (HCV)

нсv	Location	HCV's Management	Time Plan	Monitored Indicators	Time Plan
HCV 1.1.  Areas that contain or provide biodiversity support function to protection or conservation areas	Riparian of the Mirah River Forested Area on the east of the PT NKU (block S22-29, T22-27, U23-26)  Riparian of the Mirah River  Forested Area on the east of the PT NKU (block S22-29, T22-27, U23-26)	<ul> <li>50 meters riparian determinations</li> <li>Socialization the HCV 1.1 areas to all staf and stakeholders</li> <li>Arrangement and measurement of boundary, and also laying demarcation, involving local governmen forces, public figures and community representatives</li> <li>Authentication of protected area demarcation document known by the related side</li> <li>Fitting signboards of the HCV 1.1 areas and protected areas, especially in the area around villages and the path traveled by the community and staff</li> <li>Enrichment of plants in the riparian areas especially with plantf of wildlife feed</li> <li>Maintenance of demarcations, signboards, and mark on trees periodically</li> </ul>	<ul> <li>6 months</li> <li>Every 1 year</li> <li>1 year</li> <li>1 year</li> <li>3 Years</li> <li>Every 6 month</li> </ul>	Disturbance intensity of the HCV 1.1. area, including illegal logging & fire hazard  the effectivity of socialization to communities and participation of community to secure the protected area  Actual implementation and success rehabilitations againts HCV 1.1, including enrichment of plants  Trend changing of flora & fauna, also aquaic biota, monitored in the permanent sample plots with a sampling intensity 0.1%	<ul> <li>Continuously in every month</li> <li>Every 6 month</li> <li>Every 6 month</li> </ul>
HCV 1.2. Critically endangered species	Cervus timorensis  Muntiacus muntjak  Helarcos malayanus  Pongo pygmaeus  Manis javanica	<ul> <li>Do marking on individual plants that can not be cleared</li> <li>Socialization HCV 1.2 areas to staff and the community</li> <li>Put signboards HCV 1.2 areas and prohibition to cut down the plants</li> </ul>	<ul><li>6 months</li><li>6 months</li><li>6 months</li></ul>	<ul> <li>Cervus timorensis, Muntiacus muntjak, Helarctos malayanus, Pongo pygmaeus and Manis Javanica census population periodically</li> <li>Actual implementation and success rehabilitations againts HCV 1.2</li> </ul>	Every 1 year

нсv	Location	HCV's Management	Time Plan	Monitored Indicators	Time Plan
		<ul> <li>Make a standard operating procedure to identify and protection of flora &amp; fauna are protected</li> <li>Identify wildlife periodically</li> <li>Relocation orangutan due to their habitats has been fragmented.</li> <li>Protectio n of wildlife habitat in Block S22-29, T22-27 and U23-26</li> </ul>	<ul><li>Every 1 year</li><li>3 Years</li><li>Continuous</li></ul>	Intensity of wildlife illegal hunting	
HCV 1.3  Area that contain habitat for viable populations of endangered, restricted range or protected species	Riparian of the Mirah River Forested Area on the east of the PT NKU (block S22-29, T22-27, U23-26)	<ul> <li>Inventory of flora and wildlife population, include density and distribution of population, also the quality of their habitat</li> <li>Arrangement and measurement of boundary, and also laying demarcation</li> <li>Socialization HCV 1.3 area to staff and the community</li> <li>Put signboards HCV 1.3 areas and prohibiton of illegal hunting &amp; wildlife disturbance in that areas. Coordinate with Forestry Agency and regional conservation center for the management of the wildlife population</li> <li>Enrichment of plants in that protected areas, especially with local plants</li> <li>Rehabilitation at the protected areas which has been conversion to palm oil</li> </ul>	<ul> <li>Every 1 year</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>3 Years</li> <li>Continuous</li> </ul>	Intensity of interference to area which have HCV 1.3, including prohibiton of illegal hunting & wildlife disturbance, usage of hazardous & toxic materials and also fire hazard Inventory of flora and wildlife habitat Variety conditions and wealth of flora fauna species periodically Presentation growth and death of enrichment plants Actual implementation of activities and the survival of rehabilitated against HCV 1.3 areas  Effectivity of securing HCV 1.3 areas	<ul> <li>Every 1 year</li> <li>Every 1 year</li> <li>Every 6 month</li> <li>Every 1 year</li> <li>Every 1 month</li> <li>Every 1 month</li> </ul>

нсv	Location	HCV's Management	Time Plan	Monitored Indicators	Time Plan
		Securing HCV 1.3 areas from land conversion, illegal logging and illegal hunting  Maintenance of waters ecosystem, incude the depth of the river, water quality, population of aquatic biota  Socialization to the worker and communities pariodically	<ul><li>Continuous</li><li>Continuous</li><li>Every 1 year</li></ul>		
HCV 1.4.  Areas that contain habitat of temporary use by species or congregations of species	Riparian of the Mirah River Forested Area on the east of the PT NKU (block S22-29, T22-27, U23-26)	Arrange and measurement of boundary, and also laying demarcation     Socialization the HCV 1.4 areas to all staf and stakeholders, periodically     Put signboards in HCV 1.4 areas     Enrichment of plants in HCV 1.4 area, especially with feed crops     Securing HCV 1.4 areas from land conversion, illegal logging and illegal hunting     Rehabilitation at the protected areas which has been conversion to palm oil plantation	<ul> <li>6 months</li> <li>6 months</li> <li>Every 1 year</li> <li>6 months</li> <li>3 Years</li> <li>Continuous</li> </ul>	<ul> <li>Wildlife Population; density, distribution and teritory, also age and sex ratio</li> <li>Variety conditions, wealth and habitat of flora fauna species periodically</li> <li>Water quality</li> <li>Intensity of interference to area which have HCV 1.4 including prohibiton of illegal hunting &amp; wildlife disturbance, usage of hazardous &amp; toxic materials and also fire hazard</li> </ul>	<ul> <li>Every 1 year</li> <li>Every 1 year</li> <li>Every 6 month</li> <li>Every 3 month</li> </ul>
HCV 2.3.  Areasthat contain two or more contiguous	Riparian of the Mirah River Forested Area on the east of the PT NKU (block S22-29, T22-27, U23-26)	Arrange and measurement of boundary, and also laying demarcation     Socialization the HCV 2.3 areas to all staf and stakeholders, periodically	• 6 months • 6 months	<ul> <li>Wildlife Population; density, distribution and teritory, also age and sex ratio</li> <li>Variety conditions, wealth and habitat of flora fauna species periodically</li> </ul>	Every 1 year      Every 1 year

нсv	Location	HCV's Management	Time Plan	Monitored Indicators	Time Plan
ecosystem		<ul> <li>Put signboards in HCV 2.3 areas</li> <li>Enrichment of plants in HCV 2.3 area, especially with feed crops</li> <li>Securing HCV 2.3 areas from land conversion, illegal logging and illegal hunting</li> <li>Rehabilitation at the protected areas which has been conversion to palm oil plantation</li> </ul>	<ul><li>Every 1 year</li><li>6 months</li><li>3 Years</li><li>Continuous</li></ul>	Water quality     Intensity of interference to area which have HCV 2.3 including prohibiton of illegal hunting & wildlife disturbance, usage of hazardous & toxic materials and also fire hazard	• Every 6 month • Every 3 month
HCV 4.1.  Areas or ecosystem important for the provision of water and prevention of flood for downstream communities	Riparian of the Mirah Minting River Riparian of the Mirah Lui River Riparian of the Mirah River Riparian of the Anak Mirah River Riparian of Koling River Riparian of the Sandung River Riparian of the Batur River	Arrange and measurement of boundary, and also laying demarcation for HCV 4.1 Areas     Socialization the HCV 4.1 areas to all staf and stakeholders     Put signboards in HCV 4.1 areas     Enrichment of plants in HCV 4.1 area, especially with feed crops     Securing HCV 4.1 areas from land conversion, illegal logging and illegal hunting, usage of hazardous & toxic materials and also fire hazard     Vegetation iventory in HCV 4.1 area	<ul> <li>6 month</li> <li>Every 1 year</li> <li>6 month</li> <li>3 Year</li> <li>Continuous</li> <li>Every 1 year</li> </ul>	Intensity of interference to area which have HCV 4.1 (erosion, clearing, logging, fire hazzard) Implementation of activities and percentage of land cover plant in the area of rehabilitation, also care monitoring against HCV 4.1 Debit and water quality of the river, periodically Erosion rates in steep slope areas River sedimentation rates	<ul> <li>Every 6 month</li> </ul>

#### **VERIFICATION STATEMENT:**

PT Nabatindo Karya Utama opted for document audit. Three (3) Mutuagung Lestari auditors have conducted desk study and audit of relevant documents conducted the audit at their office in Jakarta from 16th - 17th December 2013; and also held interviews with the management representatives of PT. Nabatindo Karya Utama during the audit.

The SEIA (AMDAL) was conducted by the government-accredited consultant whereas the SIA and HCV assessments were conducted by RSPO-approved assessors. Therefore PT. Nabatindo Karya Utama has adhered to RSPO New Planting Procedure. Documentation of the assessments and plans are comprehensive and professionally carried out in accordance with RSPO requirements and comply with RSPO Principles and Criteria for new plantings.

Signed on behalf of,

PT MUTUAGUNG LESTARI

PT NABATINDO KARYA UTAMA

Yudwi Wisnu Rahmanto

Lead Auditor 22<sup>nd</sup> January 2014 Francisca Tiurma Damanik
Group Department Head CCS
22<sup>nd</sup> January 2014