

**Summary Report of SEIA and HCV Assessments**  
**PT Investa Karya Bhakti**  
**Kotawaringin Barat District, Central Kalimantan Province**

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## **1. Executive Summary**

PT Investa Karya Bhakti (herein after refer to PT IKB) was established by Act No. 07 dated on 19-09-2012, issued by Kokoh Henry, SH., and legalized by Ministry of Law Human Right No. AHU-52.397.AH.01.01. year 2012 dated on 02-10-2012.

PT IKB, is which is located in the Pangkalan Banteng and Kumai Subdistrict, Kotawaringin Barat Regency – Central Kalimantan Province, is one of the palm oil plantation companies that has adopted the sustainable palm oil practices based on the RSPO New Planting Procedures which came in to force beginning 1 January 2010. As part of a sustainable palm oil management, PT IKB has conducted the Social Environment Impact Assessment (SEIA/ AMDAL), High Conservation Value (HCV) identification, Social Impact Assessment (SIA) Carbon Stock Assessment and Land Use Change Analysis (LUCA). The assessment were conducted from November 2015 and reported in March 2016 by Gagas Dinamiga Aksenta (Aksenta); the key consultants conducting these assessments have been approved by HCVRN Assessor Licensing Scheme.

The area license of IKB was issued by Head of Kotawaringin Barat Regent in 2015 (SK No. 525/014/Ek dated 21 April 2015), covering area of 5,700 ha.

The results of the assessment shown that there is no primary forest in the concession of PT IKB. Based on The Report of HCV Identification PT IKB 2016 by Aksenta, The vegetation's cover dominated by the palm oil.

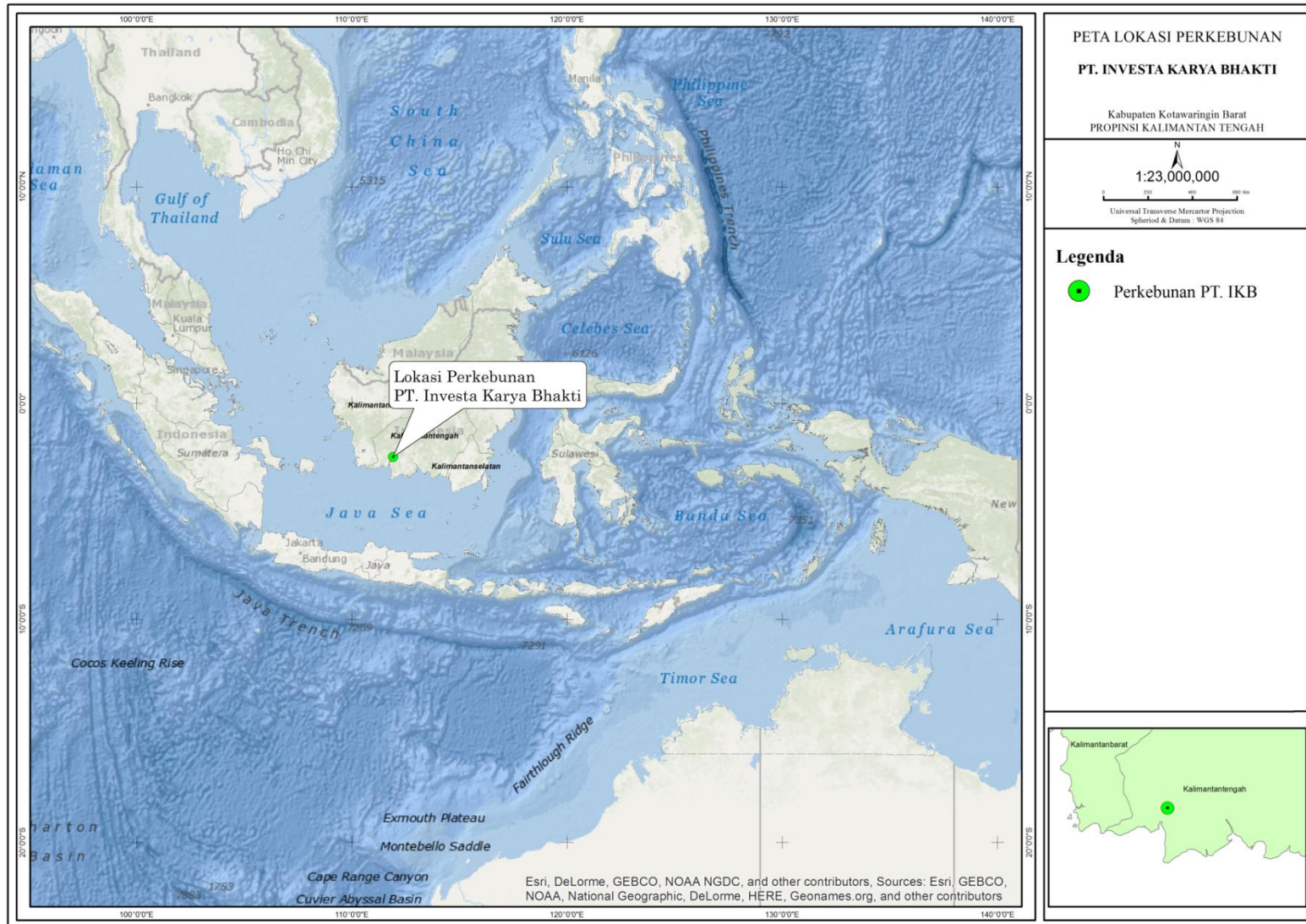
As for potential HCV areas, 3 (three) types of HCV were identified by Aksenta; these are HCV 1 (1.2, 1.3 and 1.4), HCV 3 and HCV 4 (4.1 and 4.2). The original HCV area identified was ±349.9 ha (6.1% of Plantation Permit Area). The important elements for HCV 1 are the existence of population and tracks of endangered and vulnerable species such as Orangutan Kalimantan (*Pongo Pygmaeus*), Bekantan (*Nasalis Larvatus*), Kura-kura Ambon (*Cuora Amboinensis*), Kura-kura Pipi Putih (*Siebrenkociella Crassicolis*), and Empuloh Paruh-Kait (*Setornis criniger*). The important elements for HCV 4 are related to the potential damage from river riparian and water catchments area. The HCV areas inside the IUP approved areas will be included in the monitoring and socialization plan with the local communities.

The results of the Social Impact Assessments (SIA) have shown that the company's development of oil palm plantation and palm oil mill production has a positive impacts toward local livelihood and the society's social sustainability. Generally, the communities support the development of oil palm plantation by PT IKB. Expectations of the people the main thing is the creation of jobs for the local community, transparency and clarity of plasma management, the development and improvement of social facilities/ public, improved quality and clean water facilities, construction of lighting facilities, business opportunity or cooperation with the company.

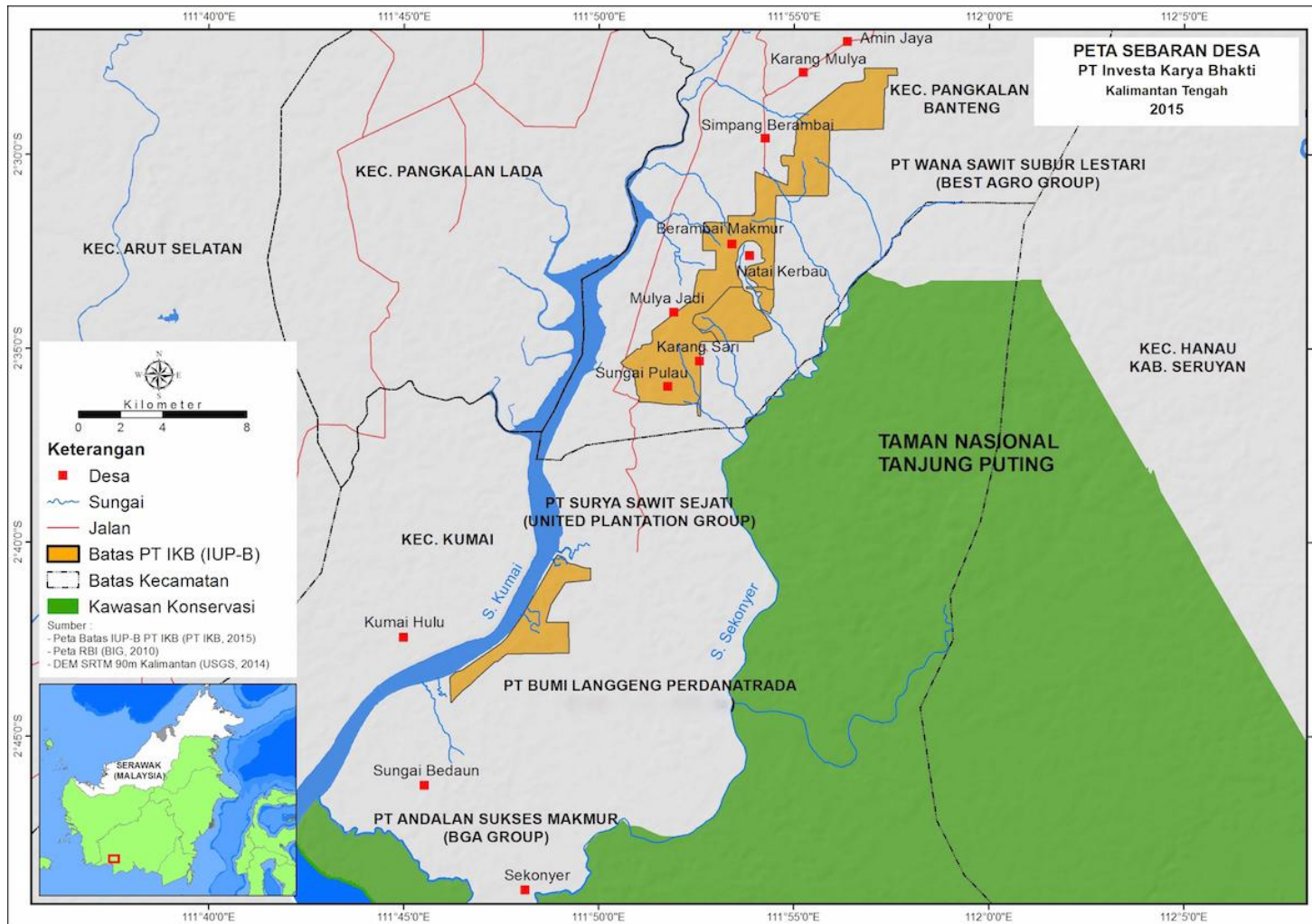
## 2. Scope of SEIA and HCV Assessment

### 2.1 Organizational Information/ Contac Person

Company Name	: PT Investa Karya Bhakti
Company Address	: Melawai Raya Street No 10, South Jakarta Jakarta- Indonesia, 12160
Type of business	: Oil Palm Plantation & Mill
Capital Status	: Domestic Investment ( <i>Penanaman Modal Dalam Negeri, PMDN</i> )
Taxpayer Notification Number	: 03.259.369.1-016.000
Geographical Location	: 2°32'13.26" - 2°42'10.55" S & 111°48'13.85" - 111°54'14.80" E See Picture 1, Picture 2, and Picture 3
Surrounding Entities	: North : Villages (Amin Jaya, Karang Mulya and Simpang Berambai) South : Tanjung Puting National Park, Plantation Area of PT Bumi Langgeng Perdanatrada & PT Surya Sawit Sejati West : Plantation area of Wana Sawit Subur Lestari, Sekonyer River & Tanjung Puting National Park East : Kumai River
Contact person	: Lim Sian Choo Phone : +62-21-27838200 Fax : +62-21-72798665 Email : <a href="mailto:lim.sian.choo@bumitama.com">lim.sian.choo@bumitama.com</a> Website : <a href="http://www.bumitama-agri.com">www.bumitama-agri.com</a>



**Picture 1** Location of PT IKB in Indonesia



**Picture 2** Location of PT IKB in Pangkalan Banteng & Kumai Sub-district, Kotawaringin Barat Regency, Central Kalimantan Province

## 2.2 List of Legal, Regulatory Permits and Property Deeds

**Table 1.** Types of permits and recommendations PT IKB

No.	Licenses and Recommendations	Issued by	Number & Date	Note
1	Deed of Establishment	- Kokoh Henry, SH.	- No: 7 dated 19-09-2012	
2	Approval the deed of Establishment	Ministry of Justice & Human Rights	AHU-52.397.AH.01.01. year 2012 Dated: 02-10-2012	
3	Tax Payer Notification Number	Tax Serve Office	03.259.369.1-016.000 Dated 07-11-2012	
4	Permitted Area (Izin Lokasi)	Head of Kotawaringin Barat Regent	525/62/IX/2014 Dated: 01-09-2014	± 11,746.74 Ha
5	Decision of Environmental Feasibility	Head of Kotawaringin Barat Regent	660/63/BLH/XII/2015 Dated: 22-12-2015	± 8,210.68 Ha
6	Environmental Permit (Approval of SEIA)	Head of Kotawaringin Barat Regent	660/64/BLH/XII/2015 Dated: 22-12-2015	± 8,210.68 Ha
7	Plantation Permit (IUP-B)	Head of Kotawaringin Barat Regent	525/014/Ek Dated: 21-04-2015	± 5,700 Ha

## 3. Assessment Process and Procedures

### 3.1 Assessor and Their Credentials

#### 3.1.1 Social Environment Impact Assessment (SEIA/ AMDAL)

The SEIA/ AMDAL document of PT IKB was prepared by consultant from CV Juvenil Rimba Natural, GM Yusuf BA Street RT 07, Nangabulik (+62 813 5286 1838) and have been approved by Head of Kotawaringin Barat Regent according to the letter number 660/64/BLH/XII/2015, date 22 December 2015.

#### 3.1.2 Social Impact Assessment (SIA)

The Social Impact Assessment of PT Investa Karya Bhakti was carried by Gagah Dinamiga Aksenta (Aksenta), with the composition of team as follows :

**Table 3.** Person and Expertise SIA Team Assessor in PT Investa Karya Bhakti

No.	Expert Name	Expertise/Position	Experience
1	Miranty Magetsari	Discipline Specialist	Experienced in the quality management system development and human resources, as well as the assessment for the purposes of certification of management systems. With Aksenta she has done assessments, among others, the Social Impact Assessment and High Conservation Value (HCV)



No.	Expert Name	Expertise/Position	Experience
			Assessment for some palm oil companies in Indonesia. In 2010 she got the accreditation of the RSPO as a Discipline Specialist for the study of HCV in oil palm plantations. In 2013 he attended training ISPO Auditor. In this assessment she responsible as team coordinator SIA studies with a specialization in community development and employment.
2	Noor Rakhmat Danumiharja	Forestry Management	Career in the Ministry of Forestry in Bukit Barisan Selatan National Park, Lampung (1982-1988), at the Natural Resources Conservation Center West Java (1999-2005), in the National Park of Mount Gede Pangrango (2005- 2007), the last work in Directorate of Forest investigation and Security (2007-2012). Other work experience as the Environmental Impact Assessment Team in PT Caltex Pacific Indonesia Blocks Minas and Jamrud (1990), the EIA Team PT Unocal offshore East Kalimantan and PT Santan Assamera in Bantayan South Sumatra. In this assessment serve as a team member.

### 3.1.3 High Conservation Value Identification (HCV)

The HCV assessment conducted for about 4 months from November 2015 until March 2016, in the Permitted Area (Izin Lokasi) of PT IKB was carried by Gagah Dinamiga Aksenta (Aksenta), which located at Jln. Gandaria VIII/ 10 Kebayoran Baru Jakarta – Indonesia, 12130.

Web page [aksenta@aksenta.com](mailto:aksenta@aksenta.com).

Key consultants from Aksenta have been accredited and approved by HCVRN Assessor Licensing Scheme (ALS). The team members are on Table 4.

**Table 4.** Key consultants HCV Assessment

Name	ALS License	Position	Expertise
Resit Sözer <a href="mailto:resit@aksenta.com">resit@aksenta.com</a>	Provisional (ALS15030RS)	Team Leader. Biodiversity Aspect (HCV 1,2 & 3)	Research and wildlife surveys, Taxonomy and wildlife ecology, wildlife management, populations and habitats study, and wildlife conflict mitigation
Aulia Bahadhori Mukti <a href="mailto:aulia@aksenta.com">aulia@aksenta.com</a>	N/A	Team Member Environment Services (HCV 4)	Hydrology, soil and water conservation, spatial analysis and remote sensing
Teuku Ade Fachlevi <a href="mailto:adhe@aksenta.com">adhe@aksenta.com</a>	N/A	Team Member Socio-culture (HCV 5 & 6)	Social, economic, natural resources management and business planning
Reza Abdillah <a href="mailto:reza@aksenta.com">reza@aksenta.com</a>	N/A	Team Member <i>GIS Specialist</i>	Remote sensing, conservation biology and land use issues mapping, and Carbon Stock Assessment.

### 3.2 Assessment Methods

#### 3.2.1 Social Environment Impact Assessment (SEIA/ AMDAL)

The data collection process was strongly associated with the type of data that collected. 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 area. 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 used to analyzed, measure and observe the environmental components which it predicted would be affected and components of action plan that would 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 is only intended as an attempt to estimate the large and important environmental quality changes that are caused by the plantation development activities of PT IKB in Pangkalan Banteng and Kumai Subdistrict, Kotawaringin Barat Regency. Method of significant impact estimation is by differentiating the magnitude impact and significant impacts.

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

Magnitude Impact 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 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 socio-cultural systems.

### **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.

### **3.2.2 Social Impact Assessment (SIA)**

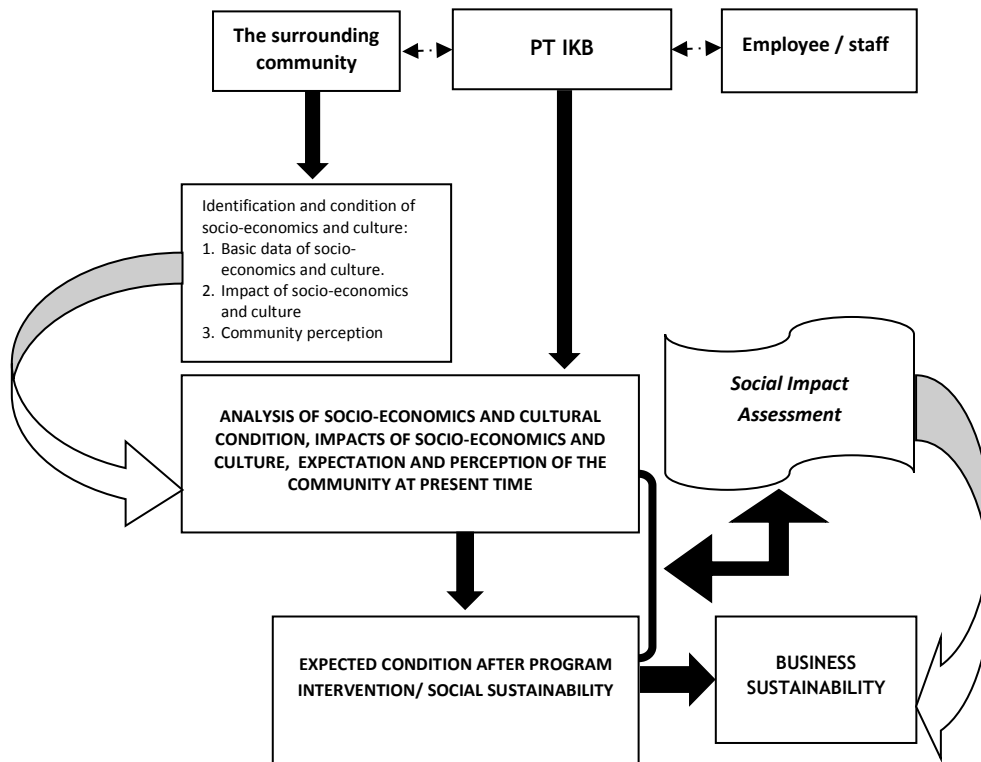
Basicly, the development of plantation area would affect the pentagon assets (Human capital, Natural Capital, Financial Capital, Social capital and Physical Cappital) in the surrounding area. Approach framework in this study of Social Impact Assessment was by learning the present existing condition in



PT IKB, particularly the condition which was related with socio-economic condition, socio-economic impacts of the company toward the surrounding the community, and the community's perception. Based on the existing condition, compilation and preparation was conducted for making SIA document and social management plan which contain activities that should be conducted to create ideal condition (desirable condition).

Sampling technique being used were purposive sampling (samples were selected on the basis of researcher's judgement which decided that those samples were the most suitable to be selected for the purpose and objectives of the research) and simple random sampling (technique of sample collection which gave the same chance for all population elements to be taken). With a participatory, multiparty, rapid ex-ante, appreciative and social-learning cycle approach.

The scope are restricted to the important impact, that considers the number of people affected, the distribution area of impact, duration of the impact, the intensity of the impact, and the number of Pentagon Assets component affected in the villages around the operational of PT IKB.



Secondary data or primary data being collected, were analyzed by integrating quantitative and qualitative method. Qualitative analysis emphasized more on description and illustration of various facts and relation between variables being found in the field.

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

### 3.2.3 HCV Assessment

#### **Toolkit**

1. The High Conservation Values Forest Toolkit (ProForest, 2003)
2. The High Conservation Values Toolkit in Indonesia
3. Common Guidance of the Identification of High Conservation Value (HCV Resource Network, 2013)

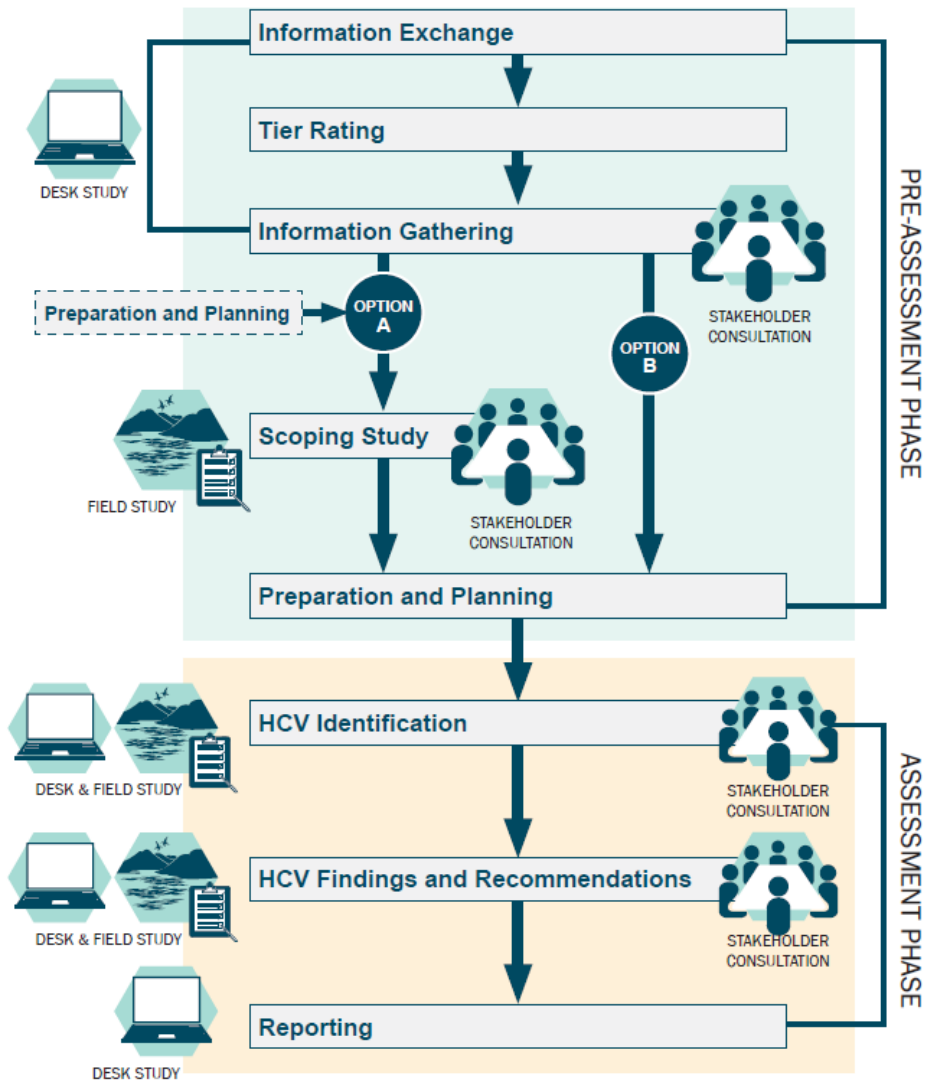
#### **Materials and Equipment**

Materials used in the identification and analysis include are : AMDAL document, protected areas master list, IUCN Red List of Threatened Species ([www.iucnredlist.org](http://www.iucnredlist.org)), CITES Appendices I, II and III valid from 12 June 2013 (CITES, 2013), Government Regulation of Indonesia Number 7 1999 (PP 7 1999), A Field Guide to the Birds of Borneo, Sumatra, Java and Bali (MacKinnon & Phillips, 1993), The Mammals of The Indomalayan Region (Corbet & Hill, 1992), A Field Guide to The Snakes of Borneo (Stuebing & Inger, 1999), Panduan Lapangan Mamalia di Kalimantan, Sabah, Sarawak & Brunei Darussalam (Payne et al, 2000), The Ecology of Kalimantan (MacKinnon et al, 1996). Digital elevation model map and data (USGS, 2000), Land cover: Landsat 8 OLI Imagery, land system map (RePProt, 1989), topographical map (Rupa Bumi Indonesia map, BIG 1998), forest land use map (TGHK) and Map of Jelai-Kendwangan River (KemenPU, 2012).

#### **Approach**

The collection of data and field information focused on potential areas of HCV based on the results of the preliminary study. The emphasis of the collection of data and information aimed at the attribute or element of HCV, using a combination of several methods, namely:

- i) The participatory mapping, carried out in an integrated manner to all types of HCV (biodiversity, environmental services and socio-cultural),
- ii) Ground truthing, direct check in the field above the land cover interpretation of satellite imagery that has been done at the pre-assessment,
- iii) The data field collection, to verify the existence of the attributes or elements of HCV in the potential areas, and
- iv) Interview



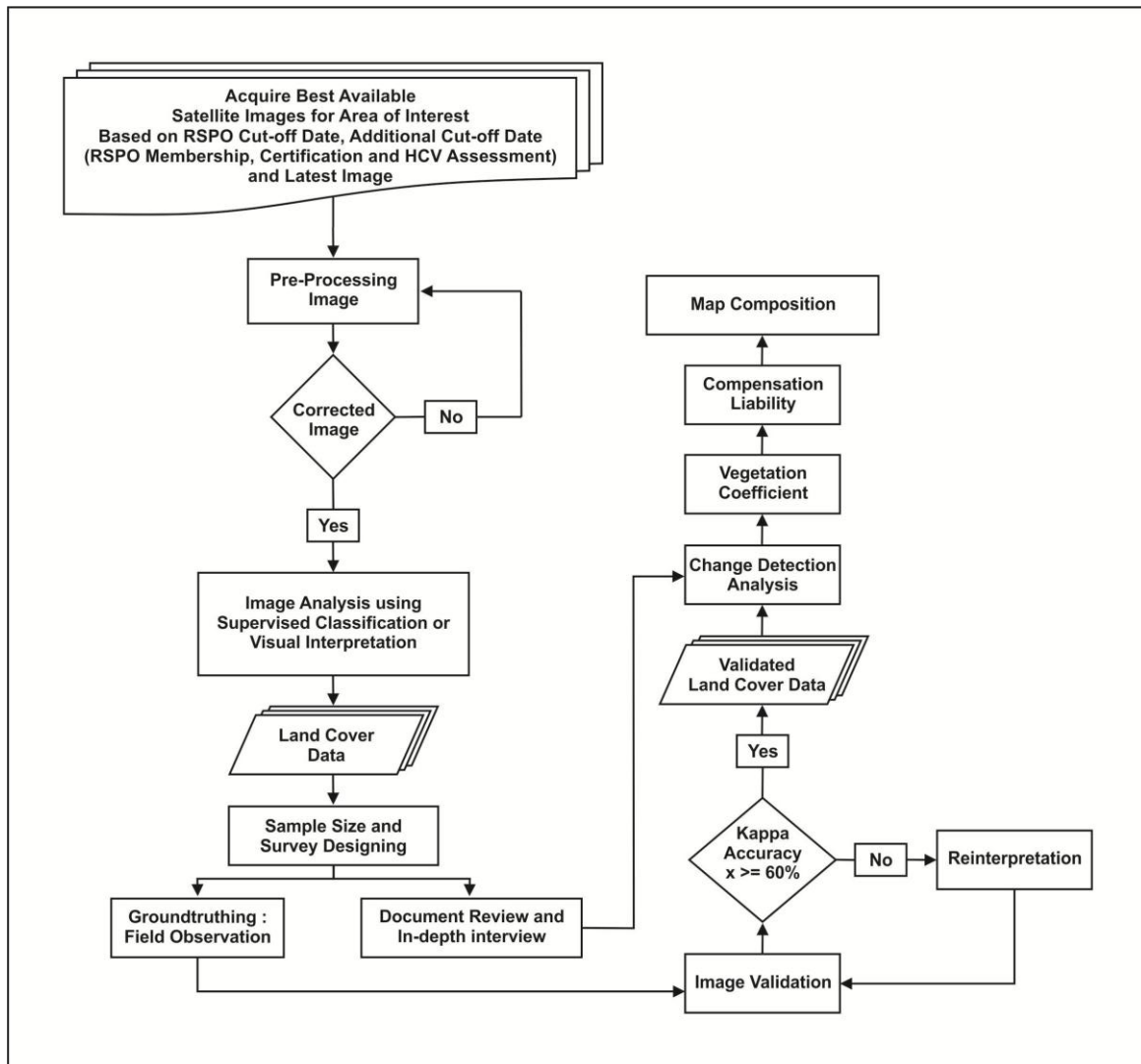
### 3.2.4 Land Use Chang Analysis

PT IKB also conducted Land Use Change Analysis (LUCA) to ensure that there is no deforestation due to land development. Conducted concurrently with HCV Assessment in October 2015.

The assessment was conducted on some cut-off period refers to the procedure Remediation and Compensation RSPO:

- (i) November 2005 (Principles & Criteria is first applied),
- (ii) November 2007 (the deadline for the trial implementation of P&C RSPO),
- (iii) January 2010 (be in effective of the RSPO New Planting Procedure),
- (iv) May 2014 (be in effective of Procedure Remediation and Compensation RSPO), and
- (v) November 2015 (first time IKB do the HCV Assessment)

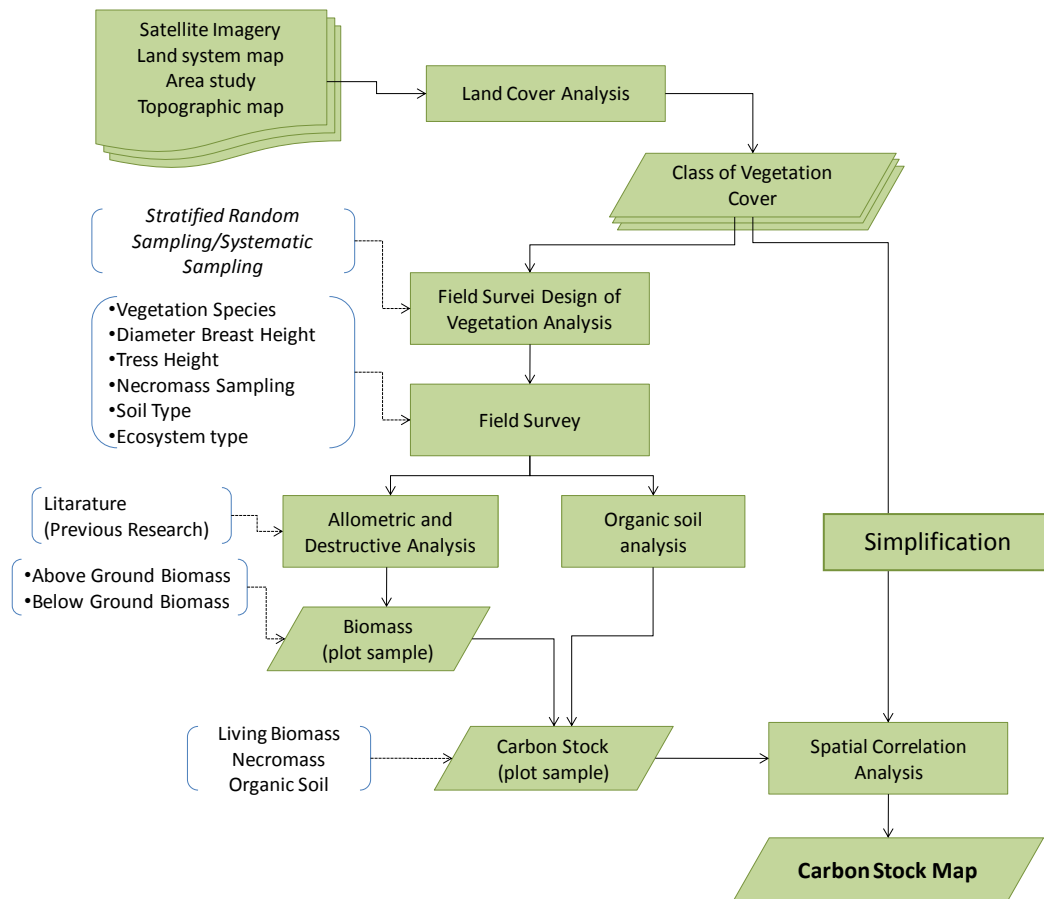
LUC Analysis was performed by four step, namely (1) Image Preprocessing, (2) Image Classification, (3) Field Verification, (4) The Compensation Scheme. Refer to the following flowchart:



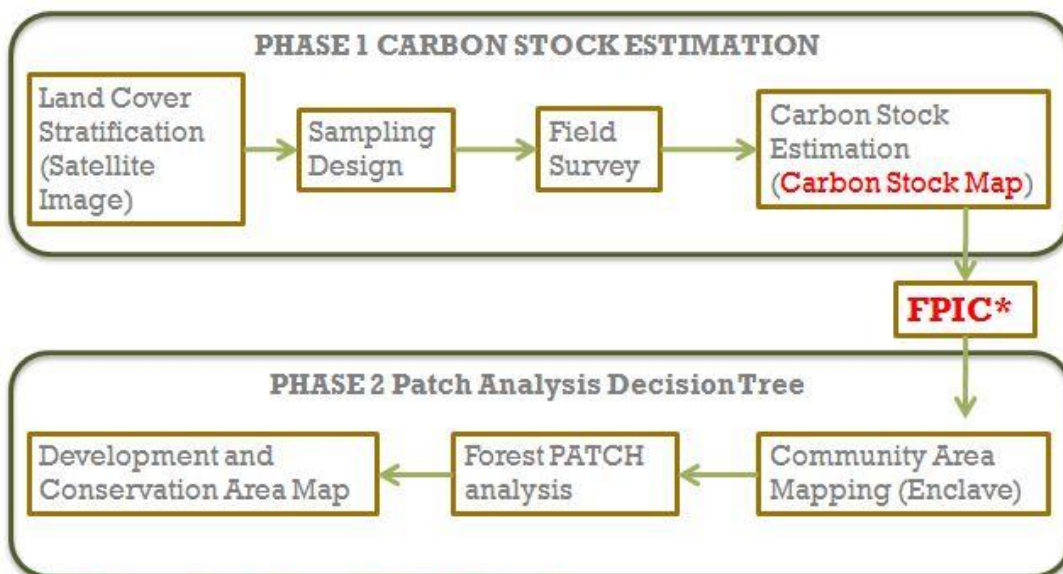
From the result of LUCA, shown that there is no primary forest in the concession of PT IKB. Land cover from November 2005 until January 2010 dominated by shrub and open land. And at the end period of HCV Assessment (November 2015), the land cover is dominated by palm oil and open land. Since all clearance in the areal IUP-B PT KB was demonstrated to be done by the local community as Non-corporate land clearance, PT IKB is not required to compensate for land cleared due to non-corporate clearance.

### 3.2.5 Carbon Stock Assessment

Before determining the area with High Carbon Stock, it needs to carry out the carbon calculations. It takes several steps including land cover analysis is strengthened with field survey. It is aimed for sampling of biomass and land cover verification the results of satellite image interpretation (ground truthing). Thereafter estimate and mapping carbon stocks. The entire process is shown in the following flowchart:

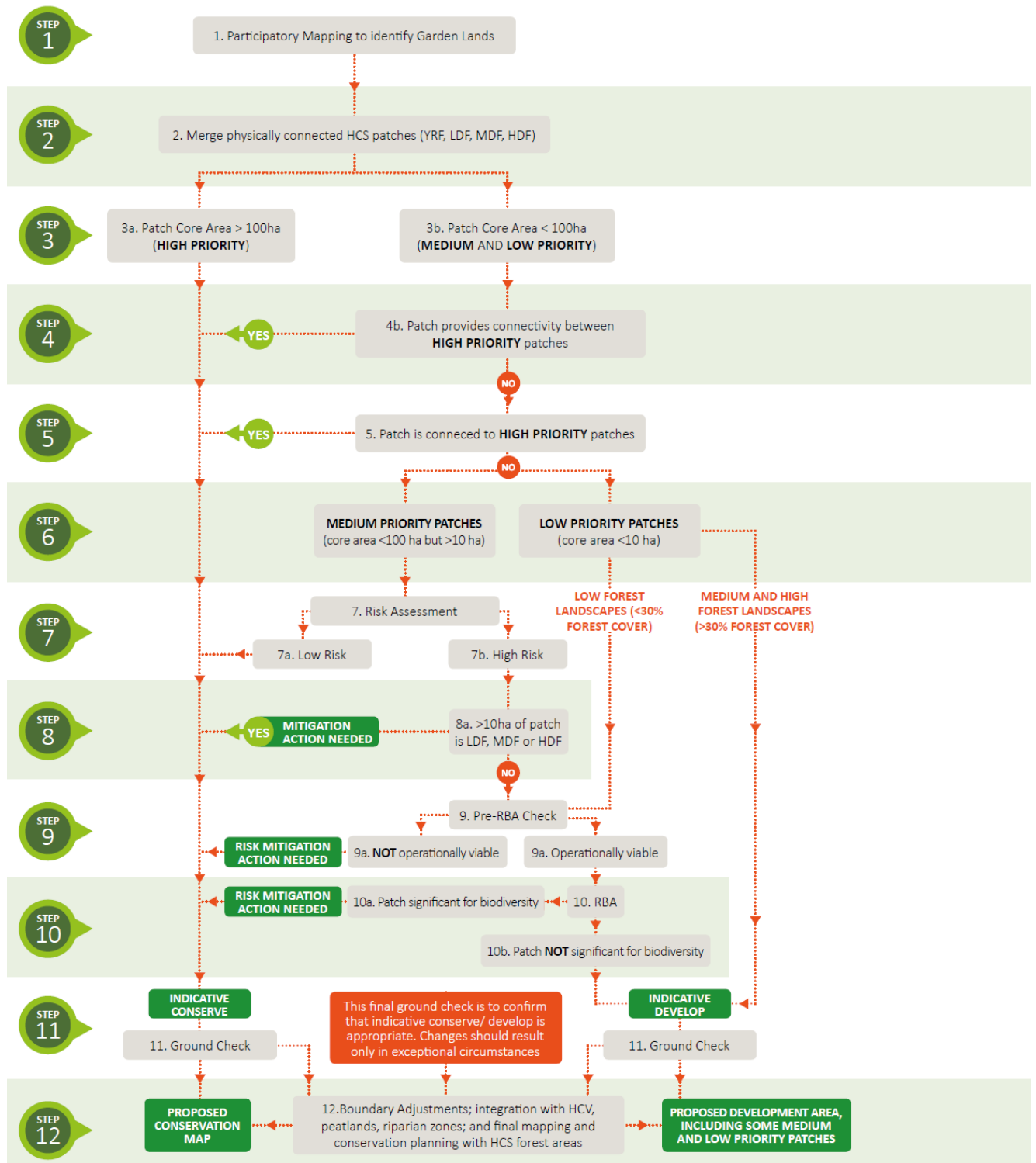


The study was conducted in two phases of work. The first phase of the High Carbon Stock (HCS) assessment focuses on the analysis of satellite imagery and field survey to produce a map showing the areas that have the potential as HCS area and also estimate carbon stocks in these areas. The second phase focuses on the separation of areas that are not classified as HCS, patch analysis in the area indicative HCS and HCS-setting area to be conserved and non HCS area that can be developed by the company.



**FPIC is conducted parallel with Phase 1**

Using the HCS Approach Toolkit Version 1.0: March 2015 (HCS Approach Steering Group, 2015), the assessment consists of land cover classification, carbon stock estimation, local community FPIC (FGD with community's representatives), and HCS area identification. HCS area identification is carried out according to the steps in the HCS Patch Analysis Decision Tree.





To determining the High Carbon Stock area we do a few disclaimer, as follows :

- Land covers of PT IKB area are classified by Carbon Stock information occurred by field survey. The land cover classification consist of Degraded Land (0 – 40 TonC/Ha), Young Regeneration Forest (40 – 60 TonC/Ha), Low Density Forest (60 – 80 TonC/Ha), Mid Density Forest (80 – 100 TonC/Ha) and High Density Forest (>100 TonC/Ha).
- HCS identification of Priority Forest Patch is occurred to 6 step. (i) Risk Assessment (step 7), (ii) YRF with >10 Ha identification (step 8), (iii) Pre-RBA (step 9), and (iv) Rapid Biodiversity Assessment (step 10) are the steps needed to determine either the Patch is HCS or not.
- The whole area for HCS assessment are outside the HCV area by 349.93 Ha, and area was opened by community around for oil palm.

From the High Carbon Stock assessment and disclaimer as above, the ares that have been identified as HCS area on PT IKB is 148.32 Ha. The area is outside the potential land development plan by IKB, so PT IKB would only do socialization to the community.

## **4. Summary of Assessment Findings**

### **4.1 Social Environment Impact Assessment**

By the SEIA study the development of oil palm plantation and palm oil mill of PT IKB in Pangkalan Banteng and Kumai Subdistrict, Kotawaringin Barat 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 IKB, one aspect of which is the main consideration is the preservation of the environment, to ensure the sustainable development.

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. Which each has potential environmental impacts as follows:

- a. Change of culture, Social Conflict and community dissatisfaction
- b. Job and business opportunities also increment of community income
- c. Land fires potential
- d. Decreasing water quality and aquatic biota
- e. Soil destruction and increasing rate of erosion and sedimentation
- f. Decreasing number of flora and fauna biodiversity
- g. Community health problem

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 IKB 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 IKB. The environmental monitoring reports will be submitted annually to the technical adviser of the government agencies.

## 4.2 Social Impact Assessment

### CHARACTERISTICS OF THE SURROUNDING COMMUNITIES

For IKB's Social Impact Assessment, Akesenta takes samples in all of villages around IUP of PT IKB, which are 10 (ten) villages over Pangkalan Banteng and Kumai Sub-district.

In 2014, population both of Pangkalan Banteng and Kumai Subdistrict were 30,644 peoples, with the detail shown in the following table.

**Table 5.** Distribution of Villager Around PT IKB

No.	Village	Width (km <sup>2</sup> )	Number of Peoples	Number of Families	Density (/km <sup>2</sup> )
	<b>Kecamatan Pangkalan Banteng</b>				
1	Karang Mulya	15	4,184	1,116	279
2	Simpang Berambai	12	1,566	427	130
3	Natai Kerbau	65	1,596	417	25
4	Berambai Makmur		838	218	4
5	Mulya Jadi	38	674	183	18
6	Karang Sari	5	794	134	159
7	Sungai Pulau	4	497	215	124
	<b>Kecamatan Kumai</b>				
8	Kumai Hulu	18	7,901	1,695	439
9	Kumai Hilir	82	8,337	1,783	102
10	Sungai Bedaun	403	4,257	1,152	11
	TOTAL (2014)	642	30,644	7,340	48

### Social, Economic and Cultural Aspects

#### Ethnics and Culture

Local peoples were living around the area PT IKB is heterogenous, with native ethnic are Melayu, Banjar and Dayak, with Javanese, Bugis, Madura, Sunda and Flores as a migrant.

The majority religion are Islam, Catholicism and Protestantism The indigenous people in the study area is currently conducting traditional rituals Nyangar and Babarsih Banua which conducted once every 5 years. Latter, the activity was conducted in 2013.

### **Livelihood**

The local community has not totally depends on natural resources; activities such as timber harvesting, fishing and hunting had almost not be done. Generally, local communities living as farmers (41%), palm oil farmers (80%) and there is also a rubber farmer. Some others besides taking care of thier own vineyard, are also working in the palm oil company that has been there before PT IKB.

Others livelihood as an entrepreneurs, merchant groceries, stalls, or restaurant, and also as FFB collectors and latex, harvesting contractors of palm oil, palm oil transport contractors and other businesses that support the activities of the plantation. Several peoples are still mining gold, but it diminishing due to the closure of the locations of illegal gold mining.

### **Economic Infrastructure**

The infrastructure of roads that connects the villages in the Pangkalan Banteng sub-district have been built since transmigration program development in this area, although have not been fully paved. While in Kumai sub-district, Kumai Hilir villagers still use water transportation (speed boat or ketinting) to be able to reach the city district.

### **STRATEGIC ISSUES**

Until this social impact assessment was carried out, the operational of PT IKB has not given changes to the pentagon asset elements in surrounding villages. This because of the interaction between PT IKB and communities are still limited to the socialization of company's operational. For any future projections, the company's operations would not have much affect the pentagon asset, because PT IKB has only 1,000 ha potential land to develop. The rest of land has been developed by the communities.

The rise issues are expected related to the population density and high level of land occupation, so PT IKB would have difficulty to acquiring the land for development. The majority people who are migrants, tend to maintain the land which is the only asset and source for their livelihood.

However, most people still support the operational of PT IKB, especially for the development plan of palm oil mill. It will give the positive impact to surrounding communities, raises the business opportunities (food needs, FFB transportation and others), as well palm oil mill of PT IKB will receive the FFB from people's plantation land.

### **CONCLUSION**

1. The Characteristics of villages around PT IKB area is homogeneous, except Kumai Hulu village who already be a semi-town. These villages have a similar and equal pentagon asset. In general, the level of welfare migrants is quite well by supported from the business sector oil palm and rubber.

2. The social conditions around the PT IKB is very conducive. Communities that depend on the oil palm are tolerant and open with an adequate level of education, which is a good factor for impartial communication and partnership.
3. There are no social risks faced by the Company from the public side. The risks only come from the technical aspect, namely the low land for acquisition so it is difficult to develop the plantation.
4. Based on the phases of palm oil plantation management and social conditions, there are four parties of key stakeholders, namely: the owner of a large area, Heads of the local village where land acquisition will be done, villagers where the palm oil mill will be built and the villages which will be in partnership.
5. The existence and operation of PT IKB potentially have a positive impact for the local community, especially to financial capital. There are two potential positive impacts, the direct impact on increasing the economic value of society's palm oil plantation and indirectly impact is increasing of business opportunities.
6. Strategic management of the social aspect of PT IKB directed to the following main problems: Settling Plasma development issues, CSR programs and communications with stakeholders issues.

### **4.3 HCV assessments**

#### **Physical Condition**

Concession area of PT IKB is on Kumai and Sekonyer river watershed area. The rivers cross through the concession area at about 9 rivers and streams, which is a periodic stream of small water discharge, or even none on the dry season.

Based on Schmidt and Ferguson's classification climate, the area of assessment is classified as type A (wet areas or tropical rain forest) with the average annual rainfall is > 100 mm/month and yearly temperature range between 25°C - 27°C.

Concession area of PT IKB is at altitude < 50 m above sea level. Based on the slope map, topography of PT IKB is flat on level 0-8%. Physiographic forms of land at the location the study divided into two: (i) floodplains (Kajapah land system; 19%) were found in the Southern; (ii) the alluvial valley (Bawin; 81%) and (iii) tidal swamps, RePPPProt 1990, both located in the Northern. Soil types in land systems tidal land are Tropohemist and Fluvaquents spreads at the Southern, and Tropudults, Dsytrudepts & Pssaments spread at the Northern.

#### **Biological Condition**

##### **Flora**

Study of flora in the context of HCV identification is carried out using the types of ecosystems that exist in the area of PT IKB, and the types of ecosystems that exist around. It is based on the consideration that the natural flora species does not grow individually with the specific needs of a growing, but the formation of forest stands dominated by the formation of certain species. Therefore, if flora is found with high conservation value, the approach of it's safeguard is not appropriate by species or per habitat for each species, but it should approach identify and conservation of entire ecosystems.

## Fauna

The number of fauna which found in the concession area of PT IKB is an amount of 102 species with details: a total of 23 mammals, 66 birds/ Aves, 13 reptiles and amphibians.

Two species of mammals and 1 species of bird are an endemic species of Kalimantan. The animals species that included in the IUCN Red List at amount 9 species; 7 species on VU/ Vulnerable and 2 species on EN/ Endangered. 7 Species of mammals, 6 of reptiles and 5 on birds listed at the CITES, while 6 species of mammals and 9 of birds categorized as protected species under Indonesian Regulation (UU No. 5/1990 and PP. 7/ 1999). As showed in Table 5.

**Table 5.** Wildlife Species Richness in the Concession Area of PT. IKB Based on It Status

No.	Scientific Name	Indonesian Name	Status			
			Endemic	IUCN	CITES	Indonesian Regulation
A	Mammals					
1	<i>Pongo pygmaeus</i>	Orangutan Kalimantan	E	EN	App. I	AB
2	<i>Nasalis larvatus</i>	Bekantan	E	EN	App. I	AB
3	<i>Presbytis rubicunda</i>	Lutung merah, Klasi	-	-	App. II	AB
4	<i>Macaca nemestrina</i>	Beruk	-	VU	App. II	-
5	<i>Macaca fascicularis</i>	Kera Ekor-panjang	-	-	App. II	-
6	<i>Prionailurus bengalensis</i>	Kucing Hutan	-	-	App. II	AB
7	<i>Aonyx cinerea</i>	Sero ambrang	-	VU	App. II	-
8	<i>Sus barbatus</i>	Babi Berjenggot	-	VU	-	-
9	<i>Tragulus javanicus</i>	Pelanduk, Kancil	-	-	-	AB
10	<i>Lariscus insignis</i>	Tupai Tanah	-	-	-	AB
B	Aves					
1	<i>Haliastur indus</i>	Elang Bondol	-	-	App.II	AB
2	<i>Nisaetus cirrhatus</i>	Elang Brontok	-	-	App.II	AB
3	<i>Elanus caeruleus</i>	Alap-alap Tikus	-	-	App.II	AB
4	<i>Loriculus galgulus</i>	Serindit Melayu	-	-	App.II	-
5	<i>Psittacula longicauda</i>	Betet Ekor-panjang	-	-	App.II	-
6	<i>Alcedo meninting</i>	Raja-udang Meninting	-	-	-	AB
7	<i>Pelargopsis capensis</i>	Pekaka Emas	-	-	-	AB
8	<i>Setornis criniger</i>	Empuloh Paruh-kait	-	VU	-	-
9	<i>Rhipidura javanica</i>	Kipasan Belang	-	-	-	AB
10	<i>Hypogramma hypogrammicum</i>	Burungmadu Rimba	-	-	-	AB
11	<i>Anthreptes simplex</i>	Burungmadu Polos	-	-	-	AB
12	<i>Arachnothera longirostra</i>	Pijantung Kecil	-	-	-	AB
13	<i>Lonchura fuscans</i>	Bondol Kalimantan	E	-	-	-
C	Reptiles					
1	<i>Cuora amboinensis</i>	Kura-kura Ambon	-	VU	App. II	-
2	<i>Siebrenkociella crassicolis</i>	Kura-kura Pipi-putih	-	VU	App. II	-
3	<i>Varanus salvator</i>	Biawak Air	-	-	App. II	-
4	<i>Python reticulatus</i>	Sanca Kembang	-	-	App. II	-
5	<i>Naja sumatrana</i>	Ular Sendok / Kobra	-	-	App. II	-
6	<i>Ophiophagus hannah</i>	Ular King Cobra	-	VU	App. II	-

Note :

- IUCN (2015): CR = Critically Endangered (kritis, mendekati kepunahan), EN = Endangered (terancam punah), VU = Vulnerable (rentan);
- CITES: App. I = CITES Appendix I, App. II = CITES Appendix II;
- Indonesian Regulation: A = Undang-undang No. 5 year 1990; B = Peraturan Pemerintah No. 9 tahun 1999

### Environmental Services Aspects

Areas or ecosystem found in the concession area of PT. IKB is the cultivation mosaics and forest regrowth. Mangroves are found at the edge of the Kumai River, and Peat Swamp Forest in lowland areas.

Practically, the existence of HCV 4 area related to the hydrological functions of the region that have significant value as: (i) the catchment area and flood control; (ii) area of erosion control and sedimentation; and (iii) an area that provides a barrier against destructive fires. From three of that, only function of natural firebreaks (barriers) elements are not found in the area of PT IKB.

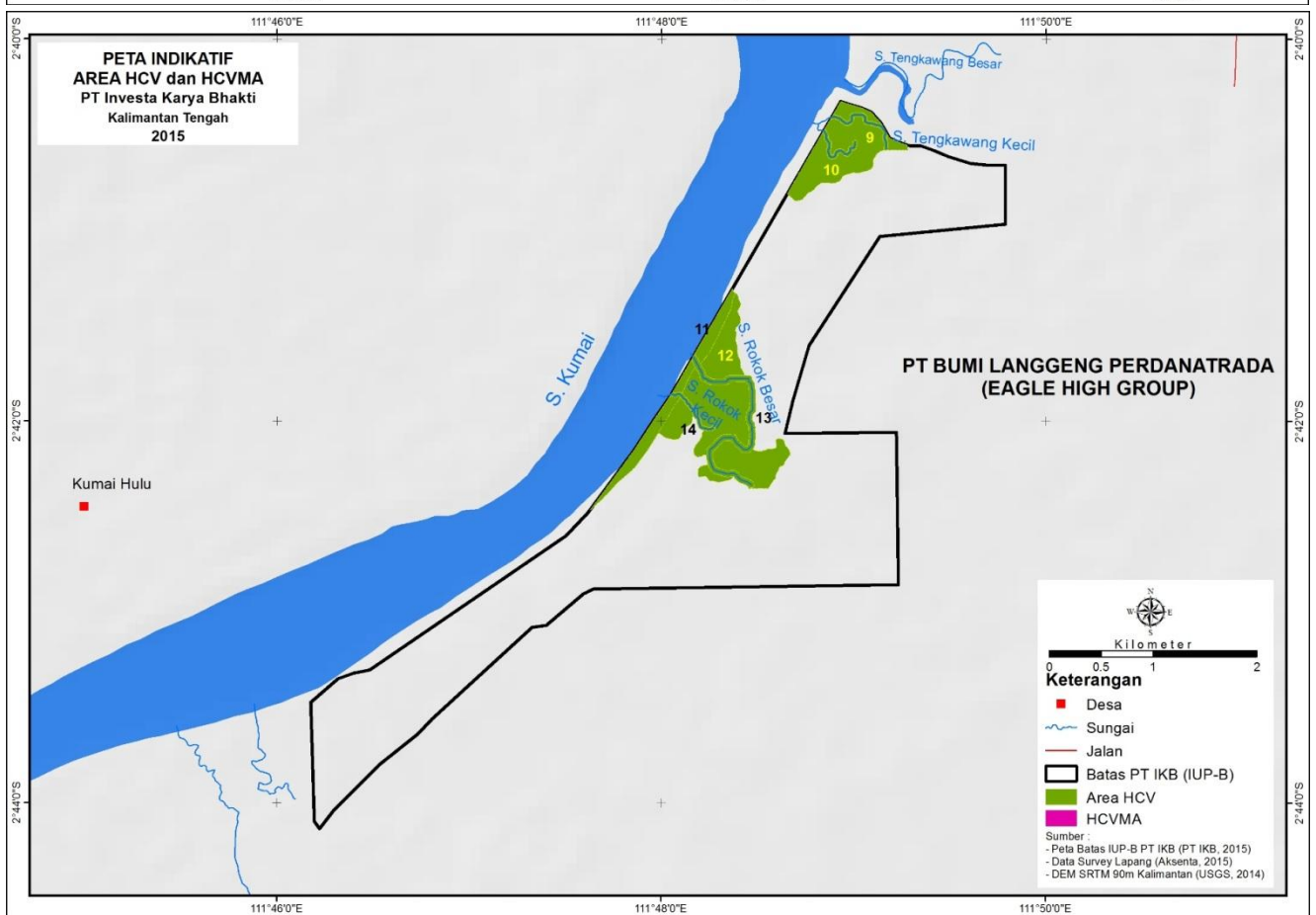
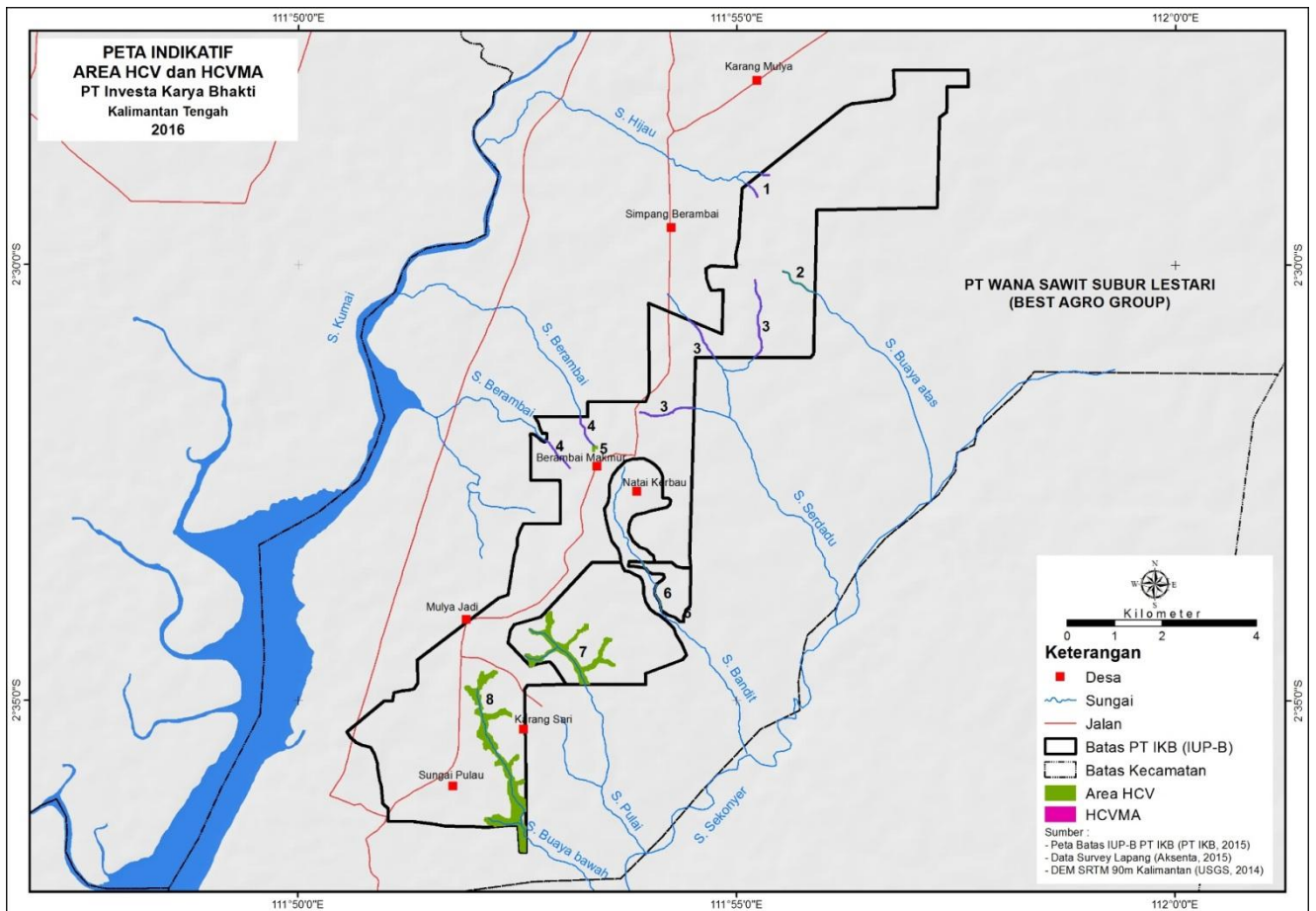
Based on field observation and review on existing maps show that area of High Conservation Value Area (HCVA) which to be planned in the area of palm oil plantation PT IKB is 349.9 hectares, with details in Table 6.

**Table 6.** Identification and Analysis Results of HCV 7 HCV Management Area in the Concession Area of PT IKB, Central Kalimantan Province

No Indeks	Deskripsi	Tipe HCV	Luas (ha)
1	Hijau River (wide 5-6m), fluctuating debit, dried on dry season. Land cover on upstream are palm oil, and on downstream used for community needs, so it necessary to be revegetated,	HCVMA	2.2
2	Buaya River (Upstream, wide 2-3m), fluctuating debit, dried on dry season. Upstream: old grove fragment, Downstream (towards Sekonyer River): plam oil. Serve as water catchment and flood control area.	4.1	3.6
3	Serdadu River (wide 2-3), fluctuating debit, dried on dry season. Upstream at area of PT IKB, land cover : palm oil. Need to be revegetated.	HCVMA	15.8
4	Berambai River (wide 2-3m), fluctuating debit, dried on dry season. Upstream at Belibis Lake, with land cover of riparian are palm oil plant. Serve as water catchment area.	HCVMA	6.1
5	Belibis Lake, with natural swamp vegetation. A feeding grounds and refuge for grouse (Burung Belibis). Serve as water catchment and flood control area.	1.4 4.1	1.1
6	Bandit River (wide: 3-5m). Upstream at Natai Kerbau Village, serve as water catchment area and need to be revegetated.	4.1	1.8



No Indeks	Deskripsi	Tipe HCV	Luas (ha)
7	Fragments of peat swamp vegetation around Pulai River. Land cover: old grove – highly degraded of secondary forests. This fragment is a habitat for several species of wildlife, rare ecosystems and the water catchment areas and erosion control	1.4 3 4.1 4.2	57.1
8	Fragments of peat swamp vegetation around Buaya River. Land cover: old grove – highly degraded of secondary forests. This fragment is a habitat for several species of wildlife, rare ecosystems and the water catchment areas and erosion control	1.4 3 4.1 4.2	101.6
9	Mangrove is still natural, but not the primary. Mangrove is habitat for Bekantan and Orangutan track area, rare ecosystems, sedimentation control area as well as flood control.	1.2 1.3 1.4 3 4.1 4.2	40.5
10	Riparian of Tengkwang Kecil River (buffer 20m), natural vegetation (Mangrove), but not primary. This area are the rare ecosystem, habitat for Bekantan, Orangutan track area, sedimentation and flood control area.	1.2 1.3 1.4 3 4.1 4.2	6.0
11	Mangrove at Riparian of Kumai River (buffer 100m), natural vegetation but not primary. Serve as rare ecosystem, habitat for Bekantan, Orangutan track area, sedimentation and flood control area.	1.2 1.3 1.4 3 4.1 4.2	20.1
12	Fragments of mixed vegetation between Nipah swamp forest and Mangrove. Land cover: old grove – highly degraded of secondary forests. This fragments area rare ecosystem, habitat fo Bekantan, Orangutan track area, sedimentation and flood control area.	1.2 1.3 1.4 3 4.1 4.2	76.7
13	Riparian of Rokok Besar River (buffer 20m), natural vegetation but not primary. This area are rare ecosystem, habitat for Bekantan, Orangutan track area, sedimentation and flood control area.	1.2 1.3 1.4 3 4.1 4.2	15.1
14	Riparian of Rokok Kecil River (buffer 20m), natural vegetation but not primary. This area are rare ecosystem, habitat for Bekantan, Orangutan track area, sedimentation and flood control area.	1.2 1.3 1.4 3 4.1 4.2	2.5
Total of HCV Area (ha)			349.9
Percentage of HCV Area by IUP-B PT IKB (%)			6.1



Picture 4. HCV Map in the Concession of PT IKB, Central Kalimantan Province

## Internal Responsibility

Formal signing off by assessors  
and company

This document is the summary of assessment result on Environment Impact Assessment (EIA), Social Impact Assessment (SIA), High Conservation Value (HCV), Land Use Change (LUCA) and High Carbon Stock (HCS) in PT IKB – Kotawaringin Barat Regency, Central Kalimantan Province and has been approved by the Management of PT IKB

Gagas Dinamiga Aksenta



**Resit Sözer**

Team Leader HCV & SIA  
Date: 30 May 2016

Management  
PT IKB,

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by several loops and a vertical line.

**Sri Hartono**

General Manager of PT IKB  
Date: 30 May 2016

Statement of acceptance of responsibility for assessment

Assessment result document of PT IKB by Gagas Dinamiga Aksenta (Aksenta) will be applied as one of the guidelines in managing palm oil plantation in PT IKB

Management  
PT IKB,

A handwritten signature in black ink, identical to the one above, consisting of a large, stylized 'S' followed by several loops and a vertical line.

**Sri Hartono**

General Manager of PT IKB  
Date: 30 May 2016

**Appendix 1** List of prevailing applicable regulations and some supporting guidelines which used as references in the identification process of HCV and SIA study.

No	List / Type of Reference	Details
1.	Status of vulnerability according to the World Conservation Union (IUCN), 2009	CR : Critically Endagerd EN : Endangered VU : Vulnerable NT : Near threatened
2.	Status in terms of trade of world's wild fauna and flora (CITES), 2009	App. I : list of all plants species and animals which are prohibited to be internationally traded by any means. App. II : list of species that trading required rules to diminish the threats of extinction.
3.	RI State Legislation (Acts):	
	1931 <i>Dierenbeschermings Ordinance</i> (Wild Animals)	Wildlife protection
	1970 Decree of Minister of Agriculture, No. 421/Kpts/Um/8/1970	Wildlife protection
	1973 Decree of Minister of Agriculture, no 66/Kpts /Um / 2 / 1973	Wildlife protection
	1977 Decree of Minister of Agriculture, No. 90/Kpts/Um/2/1977	Wildlife protection
	1978 Decree of Minister of Agriculture, No. 327 / Kpts/Um/5/1978	Wildlife protection
	1979 Decree of Minister of Agriculture No. 247 / Kpts/Um/4/1979	Wildlife protection
	1980 Decree of Minister of Agriculture, No. 716 / Kpts/Um/10/1980	Wildlife protection
	1999 Government Regulation No. 7 of 1999	Wildlife protection
	Government Regulation, PU 63/1993 PU	Determination width of the river
4.	Map of TGHK (Forest Land Use Agreement) and government's official documents concerning the appointment status of forest areas.	To determine the status of an area whether or not in the protected areas.

**Appendix 2** List of Stakeholders Involved

No	Nama	Remarks	Ethnics
1	Zaini	Masyarakat Kumai Hulu	Melayu
2	Haji Salman	Masyarakat Kumai Hulu (Pemilik Kebun Kelapa Sawit di Izin Lokasi PT IKB)	Melayu
3	M. Jauhari	Masyarakat Kumai Hulu (Staf PT IKB)	Melayu
4	Gogot	Perangkat Kelurahan Kumai Hulu	Jawa
5	Hidayat	Perangkat Kelurahan Kumai Hulu	Melayu
6	M. Yani	Masyarakat Karang Sari (Penambang emas)	Banjar
7	Hadmat	Perangkat Desa Sungai Sekonyer	Melayu
8	M. Arsyat	Perangkat Desa Sungai Sekonyer	Melayu
9	Fadri	Masyarakat Sungai Sekonyer	Melayu
10	Zais	Masyarakat Sungai Sekonyer	Melayu
11	Imam Sutakim	Kepala Desa Sugai Pulo	Jawa
12	Marsani	Masyarakat Natai Kerbau (Petani Kelapa Sawit)	Jawa
13	Safwan	Masyarakat Sungai Pulo (Petani Karet)	Jawa
14	Usman	Masyarakat Desa Sungai Bedaun (Petani Kelapa Sawit)	Madura
15	Abdul Gani	Masyarakat Desa Sungai Bedaun (Petani Kelapa Sawit)	Flores
16	Junai	Masyarakat Desa Sungai Bedaun (Petani Kelapa Sawit)	Madura
17	Abdul Karim	Masyarakat Karang Sari (Pemburu)	Jawa
18	Risnanto	Kepala Desa Karang Sari	Jawa
19	Imam Maarif	Kepala Desa Mulya Jadi	Jawa
20	Hidayat	Asisten Kepala Sustainability BGA	Jawa
21	H. Abdur Rahim, SiP	Lurah Kumai Hulu	Melayu
22	H. Basyir	Masyarakat Desa Sungai Bedaun (Pengusaha Lokal)	Madura
23	Ery Yustian	Staf PT ASMR	Jawa
24	Widiatmoko Tri Raharjo	Kasi Pelayanan Umum Kecamatan Pangkalan Banteng	Jawa
25	Surono	Staff Kecamatan Pangkalan Banteng	Jawa
26	Selamet Sutarso	Mantan Kepala Desa Karang Mulya	Jawa
27	Sumari	Masyarakat Natai Kerbau (penambang emas)	Melayu
28	Abdulrahman	Masyarakat Sungai Pulo (Petani kelapa sawit dan buruh)	Jawa
29	Haji Ramli	Masyarakat Kumai Hulu (Pemilik Lahan)	Melayu
30	Syahrir	Masyarakat Kumai Hulu (Nelayan)	Melayu

Appendix 3 Stakeholder Consultation on HCV Assessment

FORM - PROJ - 02F

**DAFTAR HADIR  
PUBLIC CONSULTATION**

**Aksenta**  
accentuate life

Nama PT : PT INVESTA KALYA BHAKTI  
Lokasi : PANDEKALAN BUN  
Asesmen : HCV

Tanggal : 28 NOVEMBER 2015  
Waktu : 10.00 - SELESAI

No	Nama	Bagian/Jabatan	Alamat dan Nomor Kontak	Tanda Tangan	
	Hidayat Apriyanto	BGA HD	JKT 081250870599		
	Kurniawan, S	IKB	P. Bun 082152898686		
	Masrum Abdullah		Kumai 081250893223		
	Zaim		Kumai 082254852517		
	Mari Moren	DS. Bedaun	Bedaun 085386209455		
	Krisnopel M Fuhry Arianto	Prof Sustainability OF-UK	Redan 081251267799 P. Bun, 0812 9197 8196		
	Iqbal Tawakkal Pisnanto	OF-UK Kepu. Pusa.	P. Bun 085751324442 K. SOTI 089855500629		
	ABOU TRUS WAGMAN	Staf Desa Kades	Bedaun. 085752418136 S. Berambai		
	SENITJEM	Polemas	" "		

FORM - PROJ - 02F

**DAFTAR HADIR  
PUBLIC CONSULTATION**

**Aksenta**  
accentuate life

No	Nama	Bagian/Jabatan	Alamat dan Nomor Kontak	Tanda Tangan	
	SUWARDI	KADES	N. Kerbau, 085247912062		
	ELU SURMINTO	IKB	M. KOK BUN		
	S. SEMBIKING	WAKA POLSEK KUMAI	POLSEK KUMAI / 081251491818		
	BURHANUDDIN PARAGIH	KM. IKB/AMR	KUMAI BERANG		
	Adha Mudha	Aksenta Aksenta	081212918166 081261933995		





**Appendix 4 Participatory Mapping on HCV Assessment**

**DAFTAR HADIR  
PEMETAAN PARTISIPATIF**

**Aksenta**

Nama PT: IKB  
 Lokasi: Desa Karang Sari  
 Asesmen: HCV, SIA, LUCA, CSA dan HCS

Tanggal: 23 November 2015  
 Waktu: 16.40

No	Nama	Bagian/Jabatan	Alamat dan Nomor Kontak	Tanda Tangan	
	Hidayat A	Suskmady HO	081230870599		
	Burhanuddin S	EM	08137302288		
	Kurniawan S	KOSIP	08215288086		
	M. ZACHARI	PAD	082134111177		
	Hans Ranggga Erawi	RSC	081329288404		
	Ery Yustian	CSR	085384830047		
	Agus Kudeanto	GIS	087738528697		
	Vici. W.N	AQC.	087307326429.		
	Masruni Abdullah	PAD	081250893223		
	M. Magetsari	SIA AKSENTA	081220281102		
	Risa Desriana Syarif	LUCA Absenta	08531229217		

**DAFTAR HADIR  
PEMETAAN PARTISIPATIF**

**Aksenta**  
accentuate life

Resit Pözer	HCV AKSENTA	081563124331		
Ikhtwan A	CSA AKSENTA	081311308557		
Aulia B.M	HCV AKSENTA	081212918166		
Yudha Utama	CSA AKSENTA	081261933995		
Reza A	HCV AKSENTA	085781987987		
T. ADE PACHLEVI	HCV AKSENTA	085260333259		
Heidei Putra H.	CSA AKSENTA	085641209311		
Ryan KP	CSA AKSENTA	085219393529		
NOOR RAKHAT	SIA AKSENTA	081573736033		





