Roundtable on Sustainable Palm Oil
New Planting Procedure
Updated Summary Report of Assessments

PT. PP London Sumatera Indonesia Tbk
Indah Permai Estate

Regency of Kutai Barat, East Kalimantan Province
Indonesia

Prepared by :
Faculty of Forestry –Bogor Agriculture University
In Cooperation With
PT. PP London Sumatera Indonesia Tbk-Indah Permai Estate
2014

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1 Executive Summary

Administratively, the plantation area of PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate is located in three sub-districts namely : *Muara Lawa Sub-district* covering Dingin Village, *Muara Pahu Sub-district* covering Dasaq Village and *Siluq Ngurai Sub-district* covering Kaliq Village, Kutai Barat Regency, Province of East Kalimantan. The company's area includes in the *Mahakam Watershed* (DAS) – subwatersheds of Kedang Pahu and Jelau.

The plantation area in the past was *Logged Over Forest Area* which managed by the forest concession companies : PT Sumber Mas II and PT Meratus Kalimantan Timber with three predominant land cover namely mixed farming fields, dryland farming fields and shrubs. According to the head of National Land Agency's Decree No : 13/HGU/BPN/2003 dated 31 January 2003, the company was granted forest concession area of 15,543.00 ha for oil palm plantation development which currently managed under the Management of Indah Permai Estate (covering area of ± 6,936.00ha) and of Isuy Makmur Estate.

Currently, the company's management of Indah Permai Estate is in the beginning step in the form of land acquisition and introducing the company's plantation development plan to the surrounding communities, relevant viilage and subdistrict officials and other local stakeholders.

Due to the company's concern to a sustainable development of oil palm plantation in accordance with P&C RSPO especially Principle 5 and 7 *(New Planting Procedue)*, in 2013, the company of PT PP London Sumatera Indonesia Tbk – Indah Permai Estate performed Tracing and Identification HCVs in his plantation area with the intention to 1) Verify and intentify the HCVs presence in the company's area, and 2) Provide recommendation on the Management and Monitoring required on each HCV area determined.

Verification and determination of the HCVs was performed using Guide of HCVs Identification Indonesia version 2 of June 2008 and Draft of HCVA Management and Monitoring Guide – Indonesia published by HCV RSPO Indonesian Working Group *(HCV-RIWG)* of August 2009.

High Conservation Value Area is an area that has one or more of the following characteristics 1). Areas containing important level of biodiversity (HCV1); 2). Natural landscape areas that important for natural ecological dynamics (HCV2); (3) Areas containing rare or threatened ecosystems (HCV3); (4) Areas providing natural environmental services (HCV4); (5) Areas containing important functions for meeting local communities's basic needs (HCV5); and (6) Areas containing important functions for local cultural identity (HCV6).

Review on the *Environtment Management and Monitoring Report by PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate, Second half of Year 2013*, it is shown the following matters :

a) Land Clearing and Road Construction

Relating to the Land Clearing and Road Construction, impact that may occur is the noise of heavy equipment and vehicles. In the monitoring, it was shown that the noise level indicated less than the threshold of Environmental Quality Standard. Community's settlements and employee housing are located far away from the Land Clearing and Road Construction activities .

b) *Forest Conversion into Monoculture Plantation Areas*

In the monitoring, it was shown that the company's activities was begun with identification of HCV presence within the concession area and then continued with HCVA maintenance and monitoring periodically. The company committed to implement a sustainable plantation management with respect, preserve and maintain sites that have functions as the cultural identity for local communities.

c) *Solid Waste Management*

Solid waste will be stored in temporary hazardous waste storage henceforth be handled by licensed parties from the Ministry of Environment of the Republic of Indonesia

d) *Labor Recruitment*

In the monitoring, it was shown that the company will recruit someone according to the his capability with more opportunity for local community. More than 50% of workforce were recruited from the surrounding communities.

e) *Liquid Waste Disposal*

In the monitoring, it was shown that that this company did not produce wastewater.

f) *Plantation management (Nursery, Planting, Maintenance)*

Performance of a company's management, will be reflected by the presence of employees demands. In the monitoring, it was shown that it was not found problems occured relating to the employees demands.

g) *Local Community Empowerment*

The implementation of Corporate Social Responsibilty programs highly affect in avoiding conflict. The Corporate Social Responsibility that has been done are improvement of village land roads, and providing paddy seeds. Proper village land road will lead to improve local community's bussiness opportinities and community's incomes. Lan acuisition has been conducted in accordance with the procedure and precautionary principles involving local viilage community's leaders.

h) *River Water Quality*

The company peformed monitoring on rivers flowing within the concession area and according to the Laboratory of Center of Health and Safety – Samarinda, it was shown that those river water quality indicated less than the threshold of Environmental Quality Standard. This means the presence of oil palm plantation did not generate significant impacts to those river water quality.

i) *Protected Plant and Wildlife Species*

The Company has made efforts to keep and maintain HCV areas and it was not found interferences on the protected plant and wildlife species..

j) *Forest and Land Fires*

The company implemented *Zero Burning Principle* in land clearing and has established an *emergency response team* for forest/land fires. Health and Safety Management Systems has also been implemented and provided with certificated person as the Health and Safety Expert in each work unit

Review on the SEIA assessment which conducted in July 2014, it is shown that the presence of the oil palm plantation of PT PP London Sumatera Indonesia Tbk - Indah Permai Estate has generated impacts, either positive and negative, to the environment and the surrounding communities. In order to minimize the negative impacts, the company commited to implement the *Environmental Management Plan (RKL)* and *Social Management Plan* that have been prepared.

The presence of the company has delivered positive impacts to the local communities especially of Kaliq Village, in the forms of : employment opportunities, improvement of village land roads, and providing paddy seeds. Meanwhile, those positive impacts have not been delivered to the local communities of *Dasaq and Dingin villages* due to the company's management of Indah Permai Estate is in the beginning step in the form of alnd acquisition and introducing the company's plantation development plan to the surrounding communities, relevant viilage and subdistrict officials and other local stakeholders.

The presence of the company has also the potentials to generate negative impacts to the environment and the surrounding communities, namely social conflicts in the local community relating to the rights of land ownership.

The Assessment has identified HCVs within the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate containing HCV1 (HCV1.2, and HCV1.3), and HCV4 (HCV4.1 and HCV4.2) which covering areas of 1,650.23 ha containing River Riparian and Buffer Zone of Swamp Areas of 100.00 ha, Swamp Areas of 181.01 ha, and Hilly Secondary Forest Areas of 1,369.22 ha.

The EIA Assessment in the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate was held by competent consultant of PT POLIGON KALTIM UTAMA and has been approved by the Head of Mining and Environmental Agency / Chairman of EIA Commission of Kutai Barat Regency according to the Decree No. No 540.660,1/030.1/AMDAL-KBR/X/2005 dated 26 October 2005. Meanwhile, the HCV and SIA assessments were conducted in 2013 by Faculty of Forestry – Bogor Agricultural University which supported by assessor team accredited by RSPO.

The company of PT PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate manages the plantation area comprehensively and professionally with refference to the principles, criteria and indicators for New Plantings Procedure of RSPO.

2 Scope of EIA, SIA and HCV Assessment

2.1 Organizational Information and Contact Person

Company's Name	:	PT. PP London Sumatera Indonesia Tbk
Address	:	Jalan Bung Tomo Komplek Keledang Mas Baru Blok BA No 3 Smarinda Seberang Propinsi Kalimantan Timur
Contact	:	Muhammad Waras muhammad.waras@londonsumatra.com) Win Alamsyah win.alamsyah@londonsumatra.com
Deed of The Company	:	Company Deed No 93, dated 18 December 1962; Deed of Company's Change No.20, dated 9 September 1963 (Notary Raden Kadiman); Ministry of Justice Approval No. J.A5/121/20, dated 14 September 1963 Deed of Company's Change No. 9, dated 10 May 2012; Ministry of Justice Approval No.AHU-0044755.AH-61.09/2012, dated 11 May 2012 (Notary Pahala Sutrisno Amijoyo Tampubolon, SH,M.Kn)
Investment Type	:	Foreign Investment (PMA)
Land Status	:	

Area permit on behalf of PT. London Sumatera Indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 33/PKT/BPN-16.3/UM-33/XI-1995 dated 21 November 1995) covering area of 18,000 ha and located in Jempang and Muara Pahu Sub-districts, Kutai Regency.

Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Agriculture Minister (SK No 9 K8.320/458/Mentan/XII/95 dated 4 December 1995)

Area permit on behalf of PT. London Sumatera Indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 07/PKT-BPN-16.3/UM-03/111-1996 dated 8 March 1996) covering area of 15,000 ha and located in Muara Lawa and Muara Pahu Sub-districts, Kutai Regency

Area permit for oil palm plantation development on behalf of PT. London Sumatera Indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 06/PRT/BPN.16.3/UM-16/III-1997 dated 26 March 1997) covering area of 11,500 ha and located in Muara Ohong village, Perigiq village, Mancong village, Tanjung Laung village, Jempang Sub-districts, Kutai Regency

Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Director General of Plantation (SK No KB.320/458/Mentan/XII/1995

dated 04 December 1995) and the license renewal No HK.530/E5.776/09.9/dated 3 September 1997.

Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Agriculture Minister (HK.300/E5.724/09/96 dated 13 September 1996) covering area of 15,000 ha and located in the villages of Tebisak, Jerang Dayaq, Tanah Mea, Tepian Ulag, Muara Baroh, Muara Pahu, Dasaq, Mendong, Kolik, Jerang Melayu, Sub-district of Muara Pahu, Kutai regency.
Renewal of Area Permit on behalf of PT. London Sumatera Internasional for oil palm plantation development (SK No 10/PKT/BPM-16.3/UM-10/IV-1997)

Total Area : 6,936.00 Ha

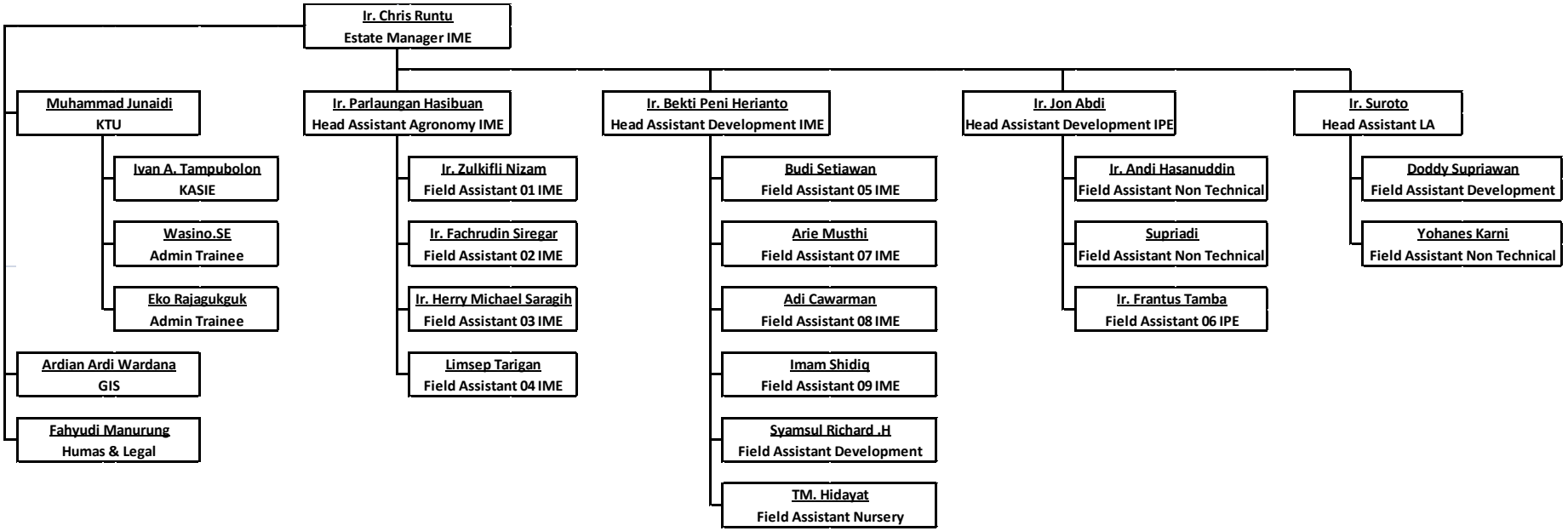

Figure-1. Organizational Structure of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate,

2.2 Legal Documents, Government Regulation and Property Deeds Related to The Area Assessed

Legal documents provided before operational are as follows:

1. Area permit on behalf of PT. London Sumatera indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 33/PKT/BPN-16.3/UM-33/XI-1995 dated 21 November 1995) covering area of 18,000 ha and located in Jempang and Muara Pahu Sub-districts, Kutai Regency
2. Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Agriculture Minister (SK No 9 K8.320/458/Mentan/XII/95 dated 4 December 1995).
3. Area permit on behalf of PT. London Sumatera Indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 07/PKT-BPN-16.3/UM-03/111-1996 dated 8 March 1996) covering area of 15,000 ha and located in Muara Lawa and Muara Pahu Sub-districts, Kutai Regency.
4. Area permit for oil palm plantation development on behalf of PT. London Sumatera Indonesia which is issued by the Head of National Land Agency of Kutai Barat Regency (SK. No : 06/PRT/BPN.16.3/UM-16/III-1997 dated 26 March 1997) covering area of 11,500 ha and located in Muara Ohong village, Perigiq village, Mancong village, Tanjung Laung village, Jempang Sub-districts, Kutai Regency.
5. Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Director General of Plantation (SK No KB.320/458/Mentan/XII/1995 dated 04 December 1995) and the license renewal No HK.530/E5.776/09.9/dated 3 September 1997.
6. Principle approval on the plantation bussiness license on behalf of PT. London Sumatera Indonesia which is issued by the Agriculture Minister (HK.300/E5.724/09/96 dated 13 September 1996) covering area of 15,000 ha and located in the villages of Tebisak, Jerang Dayaq, Tanah Mea, Tepian Ulag, Muara Baroh, Muara Pahu, Dasaq, Mendong, Kolik, Jerang Melayu, Sub-district of Muara Pahu, Kutai regency.
7. Renewal of Area Permit on behalf of PT. London Sumatera Indonesia for oil palm plantation development (SK No 10/PKT/BPM-16.3/UM-10/IV-1997).
8. Law No. 32 of 2009 regarding The Environmental Management and Protection.
9. Government Regulation No 82 of 2001 regarding Water Quality Management and Water Pollution Control
10. Regulation of The Environmental Minister No 11 of 2006 on The List of Bussiness and Activity Plans That Must be Provided with EIA (AMDAL)
11. Regulation of The Environmental Minister No 08 of 2006 on Guidance of The Environtmental Impacts Analysis Document Preparation.
12. Regulation of The Environmental Minister No 45 of 2005 regarding to Guidance of The Implementation of Environmental Management (RKL) and Monitoring Plans (RPL).
13. Decree of The Head of Environmental Control Agency No. Kep-015, 1997 regarding to Guidance of The Implementation of Environmental Management and Monitoring Plan (RKL/RPL).

2.3. Map of The Company's Area at The Site and Landscape Levels

1. Map of The Company's Area

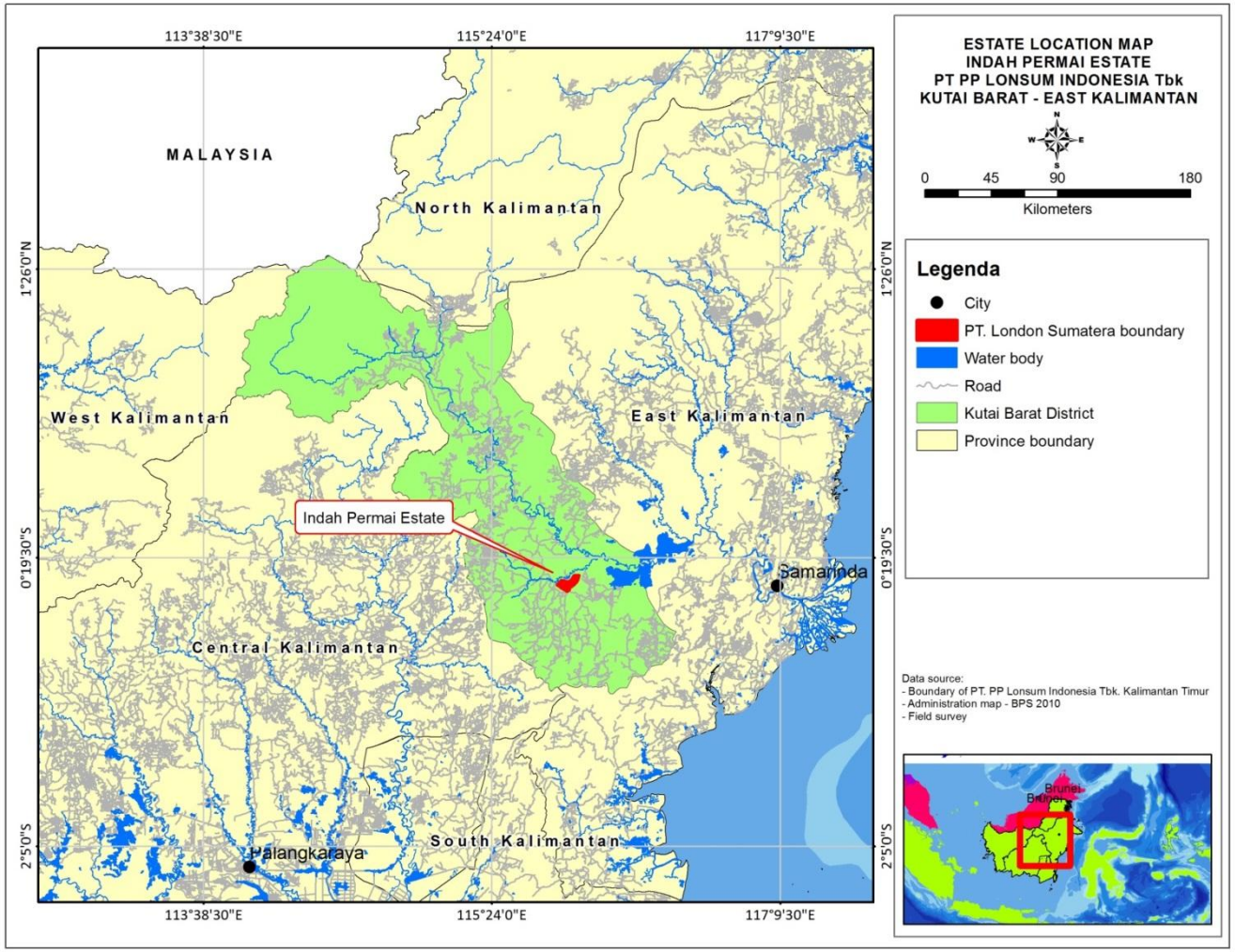

Figure-2. Map of The Area of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate in Kutai Barat Regency

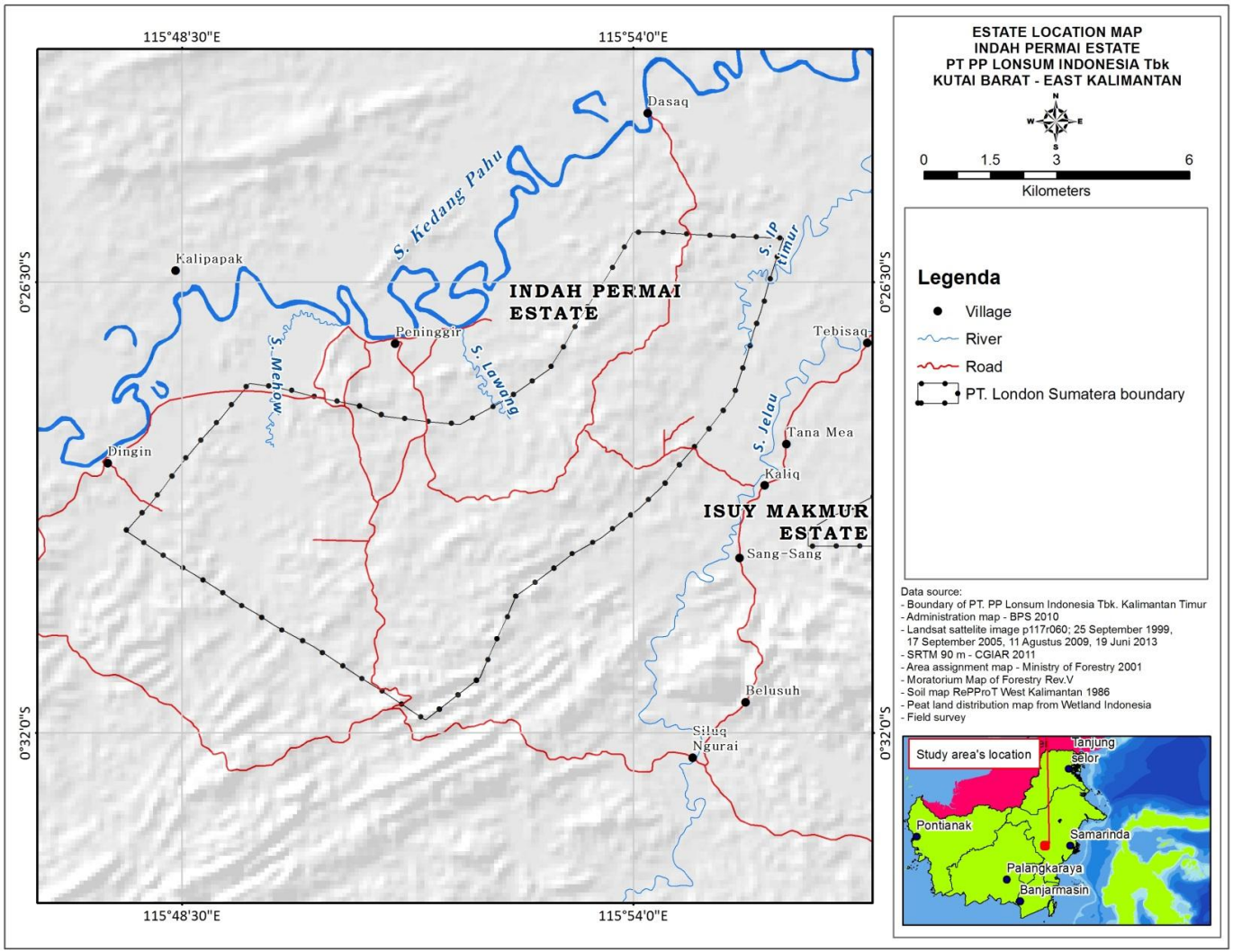

Figure-3. Map of The Area of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate

PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate manages a area of ± 6,936.00 ha for oil plam development which administratively, located in three sub-districts namely : Muara Lawa Sub-district covering Dingin Village, Muara Pahu Sub-district covering Dasaq Village and Siluq Ngurai Sub-district covering Kaliq Village, Kutai Barat Regency, Province of West Kalimantan. The company's area includes in the Mahakam Watershed (DAS) – subwatersheds of Kedang Pahu and Jelau.

2. *Map of The Company's Area at Landscape Level*

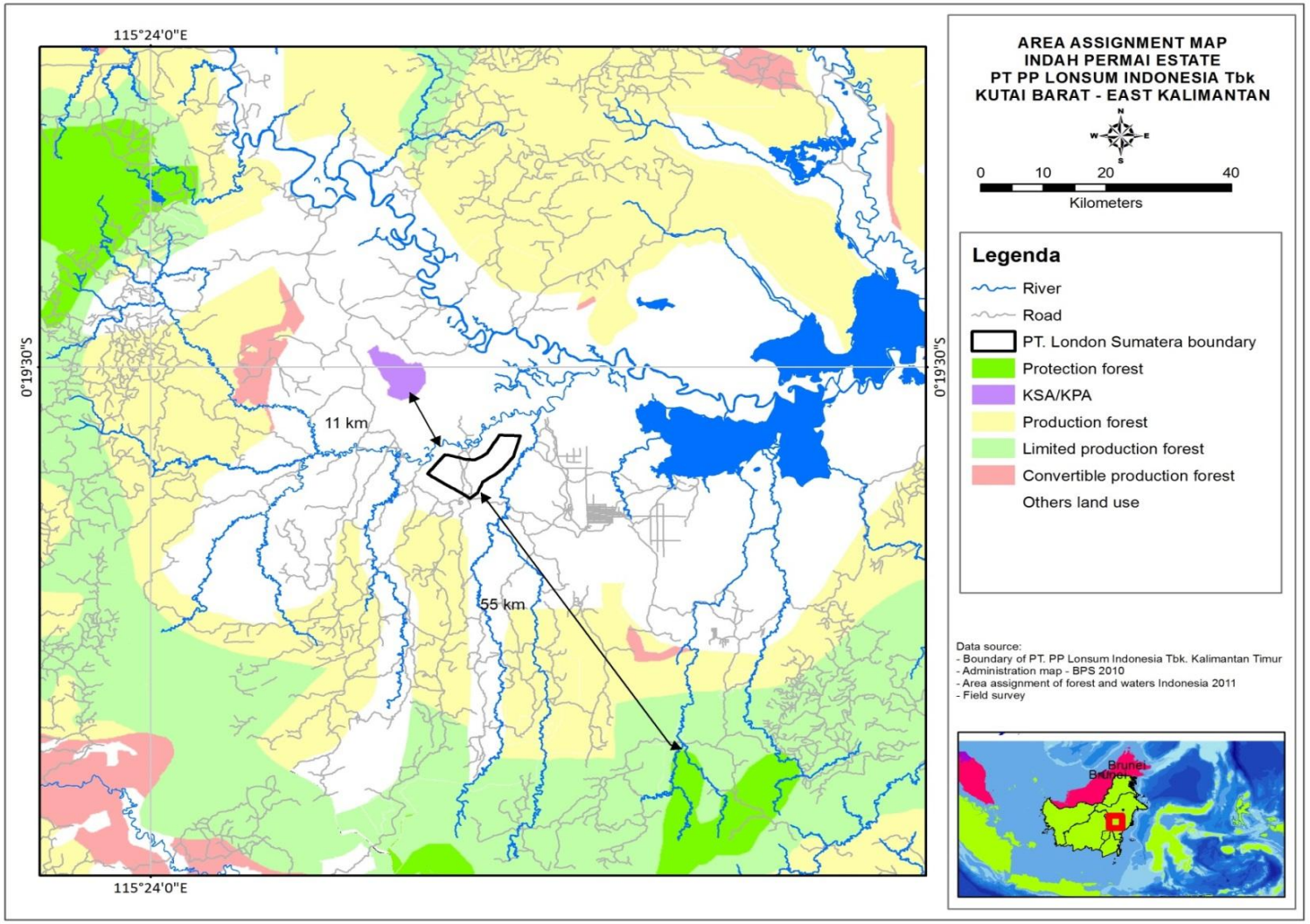

Figure-4. Map of The Area of PT. PP London Sumatera Indonesia Tbk -Indah Permai Estate at Landscape Level

Based on the land status, the area of PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate is located in *Other Land Use* areas (APL) and it is found Protection / Conservation Area namely *Padang Luwai Nature Reserve Area* and it is far from the location of the company's area with the distance of about ± 10.5 km to the west.

3. ***Satellite Imagery of The Company's Area***

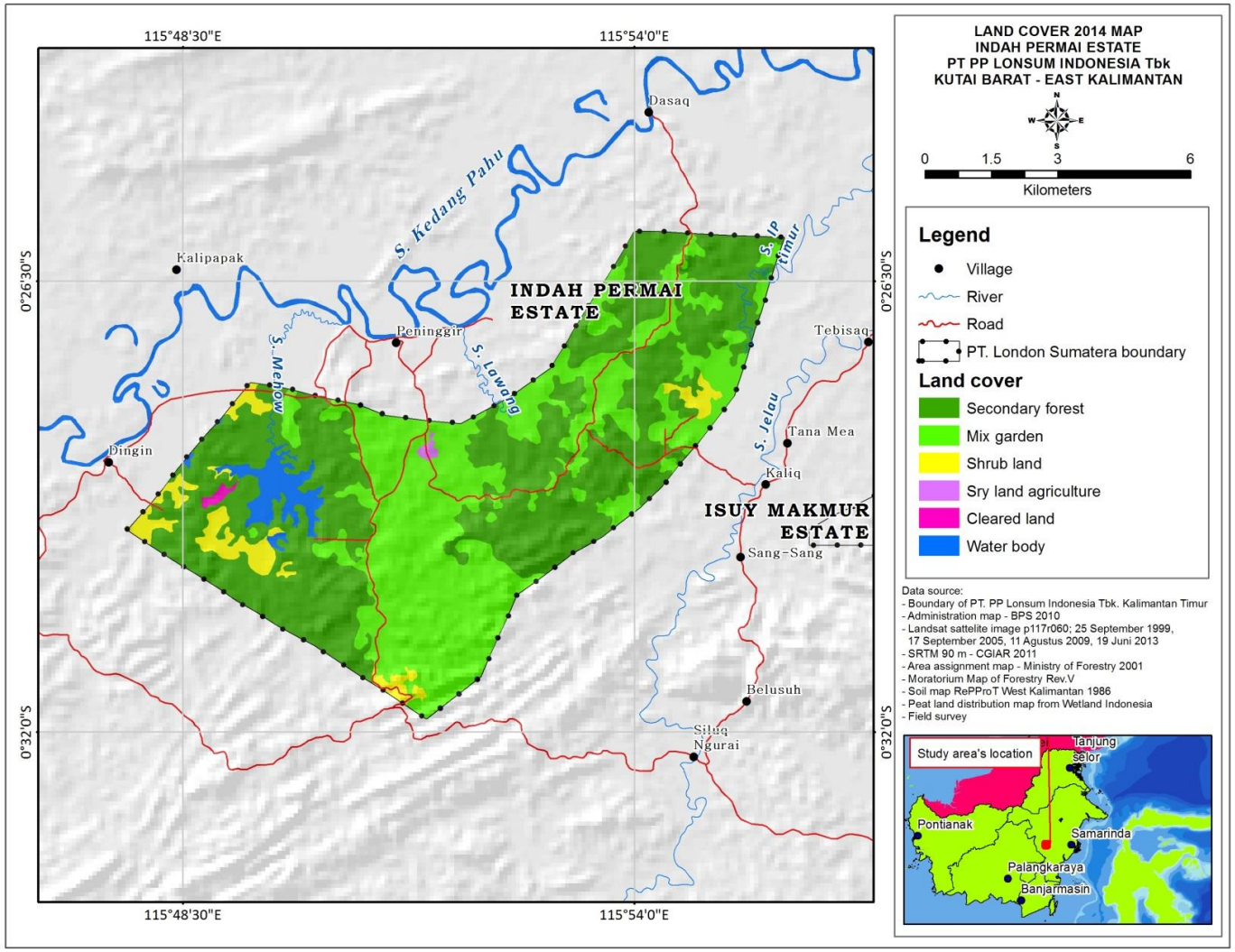

Figure-5. Map of Satellite Imagery Interpretaion in The Area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate

According to the field survey, and interpretation of satellite imagery 8 Path/Row 126-60 period 18 March 2014, it is shown that land cover in the area of PT. PP London Sumatera Indonesia Tbk Indah Permai Estate consists of 1) Dryland Secondary Forest Area (3,609.91 ha), 2) Mixed Farming Fields (2,800.36 ha), 3) Farming Fields (15.56 ha), 4) Shrubs (319.00 ha), 5) Water Body (197.25 ha), 6) Bare land (17.15) ha.

2.4. New Planting Areas and Time of Implementation Plan

Planting Program for Isuy Makmur Estate

no	Year	Ha
1	2014	1,000,000
2	2015	1,000,000
3	2016	2,000,000
4	2017	1,226.99
	Total Proposed planting	**5,226.99**

3. Assessment Process and Procedure

3.1 Assessor

a). HCV *(High Conservation Value)* Assessment

The HCV Assessment was performed by :

Faculty of Forestry – Bogor Agricultural University
Kampus IPB Darmaga - Bogor, Kabupaten Bogor - Provinsi Jawa Barat
Indonesia 16001
Telp.: 62-251- 621947, Fax: 62-251-621947
Website: http://www.fahutan.ipb.ac.id/hcv/index.html
Email: *fahutan@ipb.ac.id, hcvteam@yahoo.co.id*

Assessor Team

Dr. Ir. Nyoto Santoso, MS – Team Leader
(Specialty : Biodiversity Management and Conservation)

He was born in Banyuwangi on 15 March 1962, as a Team Leader of Faculty of Forestry's HCV Team – Bogor Agricultural University, with the specialty : Biodiversity Management and Conservation. Obtained Master at The Environment and Natural Resources Management – Bogor Agricultural University in 1992 and his Phd awarded at The Forest Management Science – Bogor Agricultural University in 2012. His experiences in the Environmental Field started in 1987. He is a lecturer at the Forest Resource and Ecotourism Conservation Department, Faculty of Forestry – Bogor Agricultural University with the subject : Wildlife Ecology and Management, Environmental and Forestry Policies, conservation of important ecosystems and primates ecology (at the forestry science and primates study program - IPB masters program). He was an Executive Director of Indonesian Mangrove Development and Reseacrh Intitute, registered as a Member of National

Mangorve's Expert Council, as an Expert Council Member of Sustainable Strategic Plantation Development Forum.

Dr. Ir. Burhanuddin Mas'ud, MS – Team Member
(Specialty : Wildlife)

He was born in Flores Timur on 21 November 1958. Obtained Bachelor's Degree at the Faculty of Animal Husbandry – UNDANA, Kupang in 1982. He is a lecturer in the UNDANA University since 1986 and a permament researcher in the Wildlife Breeding Laboratory, Department of Forest Resource and Ecotourism Conservation, Faculty of Forestry – Bogor Agricultural University. He has experiences in the assessment on both plant and wildlife related to the natural resource utilizations.

Udi Kusdinar, S.Hut –Team Member
(Specialty : Socio-Economic and Cultural)

He was born in Ciamis on 13 May 1983, and registered as a member of Bogor Agricultural University – Faculty of Forestry's HCV Team with the specialty : Socio-Economic and Cultural. Obtained Bachelor's Degree of Forestry at The Forest Resource and Ecotourism Conservation Department – Faculty of Forestry – Bogor Agricultural University in 2009. Experience in the social assessment started in 2009.

Sulfan Ardiansyah, S.Hut – Team Member
(Specialty : Floral Ecology)

He was born in Jember on 27 August 1986, and registered as a member of Bogor Agricultural University – Faculty of Forestry's HCV Team with the specialty : Floral Ecology. Obtained Bachelor's Degree of Forestry at The Forest Resource and Ecotourism Conservation Department – Faculty of Forestry – Bogor Agricultural University in 2008. Experience in the HCV assessment started in 2008

Rae Birumbo, S.Pi – Team Member
(Specialty : Socio-Economic and Cultural)

He was born in Jogjakarta on 24 August 1976 Lahir di Ciamis, 13 Mei 1983, and registered as a member of Faculty of Forestry's HCV Team – Bogor Agricultural University with the specialty : Socio-Economic and Cultural. Obtained Bachelor's Degree in the Gajahmada University in 2002. His experience in the social assessment started in 2002 in the Coastal Community Empowerment Project (PEMP) and HCVs Assessments in Papua, Kalimantan and Sumatera. Joined in the Institue of Mangrove Research and Development 2007-2010.

Arif Prasetyo, S.Hut – Team Member
(Specialty : G I S and Environmental Services)

He was born in Metro on 6 May 1987, and registered as a member of Bogor Agricultural University – Faculty of Forestry's HCV Team with the specialty : G I S and Environmental Services. Obtained Bachelor's Degree of Forestry at The Forest Resource and Ecotourism Conservation Department – Faculty of Forestry – Bogor Agricultural University in 2010. Experience in the HCVs assessment started in 2010.

b). Environmental Impact Analysis (EIA)

Study of Environment Impacts Analysis was held by :

PT POLIGON KALTIM UTAMA
Address : Jalan Kapas No 18 Sidomulyo
Samarinda – Kalimantan Timur
Phone: 0541 - 732182

Assessor Team

Dr Ir Risman Situmeang	-	Team Leader
Ir Zainal Mutaqin MP	-	Team Member (Specialty : Physical - Chemistry)
Ir Syarifudin	-	Team Member (Specialty : Physical - Chemistry)
Junser Naibaho Msi	-	Team Member (Specialty : Biology)
Ir Sulaiman	-	Team Member (Specialty : Biology)
Dra Rahmaniar	-	Team Member (Specialty : Socio-economic)
Drs Agus Salim	-	Team Member (Specialty : Socio-economic

c). SIA (Social Impact Assessment)

The SIA Assessment was performed by :

Faculty of Forestry – Bogor Agricultural University
Kampus IPB Darmaga - Bogor, Kabupaten Bogor - Provinsi Jawa Barat
Indonesia 16001
Telp.: 62-251- 621947, Fax: 62-251-621947
Website: http://www.fahutan.ipb.ac.id/hcv/index.html
Email: *fahutan@ipb.ac.id, hcvteam@yahoo.co.id*

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Udi Kusdinar, S.Hut –Team Member
(Specialty : Socio-Economic and Cultural)

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Dr. Ir. Burhanuddin Mas'ud, MS – Team Member
(Specialty : Wildlife)

He was born in Flores Timur on 21 November 1958. Obtained Bachelor's Degree at the Faculty of Animal Husbandry – UNDANA, Kupang in 1982. He is a lecturer in the UNDANA University since 1986 and a permament researcher in the Wildlife Breeding Laboratory, Department of Forest Resource and Ecotourism Conservation, Faculty of Forestry – Bogor Agricultural University. He has experiences in the assessment on both plant and wildlife related to the natural resource utilizations

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3.2 Assessment Method (Data Sources, Data Collection, Time of Implementation, Programs and Observation Sites)

A. High Conservation Value *(HCV)*

1. Data Collection

a) Documents/reports collected, consisting of a) Map of The Concession Area of PT.PP London Sumatera Tbk, b). Map of Village Around The Area of PT.PP London Sumatera Tbk – Indah Permai Estate, c) Land Cover Map; d). Land Status Map; e). Landsystem Map; e). Map of Topography and Land Slope; f). River Network Map. G) Subdistricts Data Monograph of 2013..

b) Types of secondary data collected were general condition of the company's area, (including land management history, area and location, area boundaries, land slope

and topography, soil and geology, climate, hydrology, land cover, and socio-economic-cultural); maps and other relevant documenta/reports. Secondary data collection is also performed through the study of literature, which collecting data and information from various reports or documents and maps from the relevant agencies.

c) *Review* on the documents/reports was conducted on the document/report/relevant maps. The things that reviewed, were availability and adequacy of data / information that required in the analysis. The review results were then used as the basis in the implementation of secondary data collection and field survey (field verifactions).

2. Field Observation and Data Analysis

Primary data that have been collected in the field observation consisted of physical aspect of the concession area, environmental services aspect, socio-economic aspect and socio-cultural aspect.

a) Mapping and Landscaping
Mapping and landscaping team collects data to verify data and secondary information such as river network, land road network, area boundary, soil types, topography, and overviewing on the hole area assessed. In addition, the mapping and landscaping team will also support other teams in mapping all finding data and information into the map and to analyze it.

b) Wildlife Assessment
In the field, wildlife data collection is performed using rapid assessment method (qualitative field observation) to get the actual informations on the existing wildlife condition in and around the study area. Output of the wildlife assessment is a list of wildlife species found and the species protection status according to the IUCN, CITES and PP No 7 of 1999.

c) Plant Assessment
In the field, plant species data collection is performed using interview and field observation methods. The data collected are then identified the species protection status according to IUCN, CITES and PP No 7 of 1999. Furthermore, the data and information collected are used to verify the initial map of ecosystem distribution (HCV2 and HCV3) in the study area; and also used to identify forest stand structure, species density or species dominance on each ecosystem type.

d) Socio – Economic – Cultural Assessment
In the field, data collection is performed using interview and field observation methods on the selected location. List of structured questions is used as a guidance for interviewer with the informations collected consisting of : the way of fulfilling basic needs for local community, community's custom and culture, inter-relationship between local community and forest area, and inter-relationship between local community and the company. The data / information collected are analysed to identify level of local communty's dependency on the forest area and the role of forest area in the local community's everyday lifes and their cultural identity.

3. Location and Time of Implementation

The study was conducted in the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate and the surrounding villages namely : *Muara Lawa Sub-district* covering Dingin Village, *Muara Pahu Sub-district* covering Dasaq Village and *Siluq Ngurai Sub-district* covering Kaliq Village, Kutai Barat Regency, Province of East Kalimantan. The

HCVs Assessment was completed in 2 month from May-June 2014 and and the field observation was caried out on 27 May – 1 June 2014. The study have visited 14 observation sites with the following details :

No	Observation Sites	Number
1	Mixed Farming Fields	4
2	Secondary Forest Area	2
3	River Riparian Areas	3
4	Sub district Government Office	3
5	Village Government Office	3
Total		**14**

4. Analysis and Mapping

Analysis and Mapping is the most crusial and important step in the assessment process. In the ana;ysis, it is performed a deep and comprehensive analysis on the secondary and primary data collected in the field consisting of physical aspect, spatial, flora, wildlife, and socio-cultural aspect. Outputs of the analysis, will be used as the basis in the identification of HCV;s presence in the area assessed and then continued with mapping them using GIS software.

HCV1. Areas Containing Important Level of Biodiversity

a) Mapping the company's area, including land cover and ecosystems, at the site and landscape levels
b) Mapping the existence of protection forest or conservation areas in the company's area and the surroundings, including conservation area designated by local community
c) Identifying the potential roles of company's area in providing support to the biodiversity in protection or conservation areas within or around the area of PT.PP London Sumatera Indonesia Tbk – Indah Permai Estate.
d) Identifying the areas that have the potential roles in providing support functions to the biodiversity in protection or conservation areas in or around the area of PT.PP London Sumatera Indonesia Tbk – Indah Permai Estate.

HCV2. Landscapes That Important for Natural Ecological Dynamics

a) Mapping vegetation cover of the company's area at landscape level.
b) Mapping the mature vegetation cover on each Management Unit at the landscape level with special attention to the area boundary for example : clear boundary deliniation on the forest (or natural forested areas) with degraded forest area due to human aciitvities.
c) Identifying the potential presence of core zone and buffer zone required to reduce impacts generated by the activity of each management unit.
d) Consider the possibility of change scenarios on the core and boundary zones based on the land use plan set by government

HCV3. Areas Containing Rare or Endangered Ecosystems

a) The first step is to identify rare or endangered ecosystems in each Management Unit (UP), consisting of Mangrove ecosystem, deep-peat ecosystem (>3m), Karst ecosystem, Heath Forest ecosystem, etc.

b) Then to analyze the extent, distinctiveness and uniqueness of the rare or threatened ecosystems identified, as well as the threats, functions of those ecosystems in the biodiversity and environmental sustainability, and area delineation on each rare or endangered ecosystems identified.

HCV4. Areas Providing Natural Environmental Services

a) Overlap the area boundaries of the company's area with Map of Forest Land Use (TGHK) and Provincial Spatial Planning (RTRWP).
b) Delineate the watershed and sub-watershed areas in each Management Unit (UP) and the surrounding.
c) Identify dependency of local community to the existing water sources.
d) Delineate the left-right area of river flowing in each Management Unit (UP) and determine these areas as riparian with the size specified in the applicable rules.
e) Identify the presence of important ecosystems in the ecosystem map prepared by HCV3 Team. The identification can also be performed using RePPProt Data as the indicative map which showing where the important ecosystems usually exist (if the ecosystem map is not available)..
f) Prepare land cover map based on the field observation combined with the latest sattellite imagery interpretation.

HCV5. Areas Containing Important Function in Fulfilling Basic Needs for Local Community

Benchmarking for important category is defined as 50 % or more of one or more subsistence can be fulfilled by utilizing other forests or ecosystems. HCV5 does not apply limit criteria at community level or sub-group of it.

HCV6. Areas That Have Important Functions for Local Community's Cultural Identity

HCV6 will be determined in a Management Unit if in the HCVs Assessment, it meets one or more of the following indicators :

- It is found that local community acknowledges zoning in the village areas according to the the land use purposes such as public burial areas and sacred places.
- It is found dispersion of cutomary areas at landscape level that acknowledged by local communities, either in the low, medium or high dispersion which will be used as the complementary informations relating to preparing the management treeatment required by a Management Unit.
- It is identified level of interest, either in the low, medium and high level, of those areas in providing interests to the local communities

B. Environmental Impact Analysis *(EIA/AMDAL)*

Formal Method

Formal method is used to measure or estimate impact parameters using mathematical statistical model.

Informal Method

Informal method is used based on the intuition, analogy and experience, in measuring or estimating environmental parameters using statistical mathematical approach. The common approach used in the informal method are

a). Analogy
In the analogy method, environmental problems that have been arised in an area due to various human activities, will be used as the basis and consideration in the estimation of impacts that may arise in other places with the same ecosystem type.

b). Environmental Standard
Environmental strandard used is the criteria and standard that have been determined by local, regional, sectoral or even national regulations, or using the standards and criteria that have been accepted and recognized by public.

c). Professional Consideration
This method is used only when we meet lack of data and information (unadequate data available) in the field and the lack of understanding to impacts.

Data collected consists of primary and secondary data. While filed survey which is supported by structured interview is to collect primary data. Assessor will use questionnaire as the guidance in the interview. While collecting data sourced from regional offices, is conducted using purposive sampling method to identify conditions of demography, public health and education, religion, social, culture and economic in the form of secondary data.

C. SIA *(Social Impact Assessment)*

1. Data Collection

Data required in the assessment consists of primary and secondary data which collected from the company's office, relevant government agencies and field verifications.

a) Secondary Data

Secondary data that have been collected, namely : Kutai Barat Regency in Figures of 2013, Jempang Sub-district in Figures of 2013, CSR Report Document, Documents of land acquisition by the company of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate and other relevant documents.

b) Primary Data

Primary data was collected using Field Observation, *Focus Group Discussion* (FGD) and interview methods, based on the representativeness of the socio-economic aspects, working areas, and the pattern of interaction with the company.

Field Observation
Field observation is performed to identify the existing condition in the field in order to

- make sure that data that have been collected are the same or at least almost the same with the real condition in the field.
- explore deeper information in the field on the condition of community's socio-economic in and around the company's area.

Focus Group Discussion (FGD)
Focus Group Discussion is performed to explore information, problems, hopes and perception of local community related to the oil palm development plan of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate. The FGD was conducted in all study villages.

Interview
Interview is performed using two methods, namely : structured and semi-structured interview.

2. Location and Time of Implementation

The study was conducted in the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate and the surrounding villages namely : *Muara Lawa Sub-district* covering Dingin Village, *Muara Pahu Sub-district* covering Dasaq Village and *Siluq Ngurai Sub-district* covering Kaliq Village, Kutai Barat Regency, Province of East Kalimantan. The HCVs Assessment was completed in 2 month from May-June 2014 and and the field observation was caried out on 27 May – 1 June 2014.

3.3 Public Consultation

Public consultation was held on 31 May 2014 in the Plantation Office of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate. The public consultation results will be used as inputs in the completion of HCV document report

List of attendance in the public consultation held are as follow:

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
FAKULTAS KEHUTANAN INSTITUT PERTANIAN BOGOR
Kampus IPB Darmaga Bogor 16001. Alamat Kawat : FAHUTAN Bogor
Telp. (0251) 8621677 Fax. (0251) 8621256 Website : http://www.fahutan.ipb.ac.id E-mail : fahutan@ipb.ac.id

DAFTAR HADIR KONSULTASI PUBLIK
KAJIAN IDENTIFIKASI NILAI KONSERVASI TINGGI (NKT)
PADA AREAL PT.LONDON SUMATERA-KAB KUTAI BARAT

Hari/Tanggal : Sabtu/31 Mei 2014
Waktu : 11.00 WITA
Tempat : Ruang Meeting Kantor GM PT. PP. Lonsum Indonesia . Kab. Kutai Barat

No	Nama	Jabatan Instansi	Alamat	No Tlp/HP	Tanda Tangan
1	M. IRWANSYAH	EM - PMF	LONSUM	08127884211	
2	SEKIRIN	pulau Lanting	SETAPADAT		
3	KASRAN	Pulau Lanting	SEKARIS		
4	Moses Joni	Petinggi	TG Jan	082353287421	
5	AKHMADI	K PENGERUKAN	BERONANG M	081350743791	
6	GAZALI . R	BABINSA	TJ Isuy	081350729943	
7	URIP WIDODO	Kapolsek	TJ Isuy	08125565290	
8	A. Bangtil	Kep Adat	TJ Isuy		
9	Rae Bicumbo	Tim HCV & SIA	IPB - Bogor	085692451555	
10	Sulfan Ardiansyah	Tim HCV IPB	Bogor	085232224241	
11	Udi Kurdinar	Tim HCV IPB	Bogor	081710567214	
12	Burhanuddin	Tim HCV IPB	"		
13	CHRIS. RUNTU	EM IME	IME		
14	ADI BASTOMI	ECM - LST	MEDAN	081265932 65	
15	SEKIRIN	PULAU LANTING	ADAT		
16	KASRAN	PULAULANTING	SAKATIS		
17	Zulvdmi Sagala	Humas	Lonsum	08195293501	

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
FAKULTAS KEHUTANAN INSTITUT PERTANIAN BOGOR
Kampus IPB Darmaga Bogor 16001, Alamat Kawat : FAHUTAN Bogor
Telp. (0251) 8621677 Fax. (0251) 8621256 Website : http://www.fahutan.ipb.ac.id E-mail : fahutan@ipb.ac.id

DAFTAR HADIR KONSULTASI PUBLIK
KAJIAN IDENTIFIKASI NILAI KONSERVASI TINGGI (NKT)
PADA AREAL PT.LONDON SUMATERA-KAB KUTAI BARAT

Hari/Tanggal : Sabtu / 31 Mei 2014
Waktu : 1000 WITA
Tempat : Ruang Meeting Kantor GM PT. PP. London, Kab Kutai Barat

No	Nama	Jabatan Instansi	Alamat	No Tlp/HP	Tanda Tangan
18	M. SUFIANA	Ex CSR Staf	London	082253557944	
19	Nyoto Santoso	Ketua Tim Tenaga IPB	Bogor	081119004 3	

Below are photo documentation in the public consultation held in the Plantation Office of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate.

Figure-6. Public Consultation that held inThe Plantation Office of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate

Figure-7. Participants in The Public Consultation

4. Summary of Assessment Findings

4.1. EIA and SEIA

Administratively, the plantation area of PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate is located in three sub-districts namely : *Muara Lawa Sub-district* covering Dingin Village, *Muara Pahu Sub-district* covering Dasaq Village and *Siluq Ngurai Sub-district* covering Kaliq Village, Kutai Barat Regency, Province of West Kalimantan. The company's area includes in the *Mahakam Watershed* (DAS) – subwatersheds of Kedang Pahu and Jelau..

The plantation area in the past was *Logged Over Forest Area* which managed by the forest concession companies : PT Sumber Mas II and PT Meratus Kalimantan Timber with three predominant land cover namely mixed farming fields, dryland farming fields and shrubs. According to the head of National Land Agency's Decree No : 13/HGU/BPN/2003 dated 31 January 2003, the company was granted forest concession area of 15,543.00 ha for oil palm plantation development which currently managed under the Management of Indah Permai Estate (covering area of ± 6,936.00 ha) and of Isuy Makmur Estate.

Currently, the company's management of Indah Permai Estate is in the beginning step in the form of land acquisition and introducing the company's plantation development plan to the surrounding communities, relevant viilage and subdistrict officials and other local stakeholders.

Review on the *Environtment Management and Monitoring Report by PT. PP London Sumatra Indonesia Tbk – Indah Permai Estate, Second half of Year 2013*, it is shown the following matters :

1) *Land Clearing and Road Construction*

   Relating to the Land Clearing and Road Construction, impact that may occur is the noise of heavy equipment and vehicles. In the monitoring, it was shown that the noise level indicated less than the threshold of Environmental Quality Standard. Community's settlements and employee housing are located far away from the Land Clearing and Road Construction activities.

2) *Forest Conversion into Monoculture Plantation Areas*

   In the monitoring, it was shown that the company's activities was begun with identification of HCV presence within the concession area and then continued with HCVA maintenance and monitoring periodically. The company committed to implement a sustainable plantation management with respect, preserve and maintain sites that have functions as the cultural identity for local communities.

3) *Solid Waste Management*

   Solid waste will be stored in temporary hazardous waste storage henceforth be handled by licensed parties from the Ministry of Environment of the Republic of Indonesia.

4) *Labor Recruitment*

   In the monitoring, it was shown that the company will recruit someone according to the his capability with more opportunity for local community. More than 50% of workforce were recruited from the surrounding communities.

5) *Liquid Waste Disposal*

   In the monitoring, it was shown that that this company did not produce wastewater.

6) *Plantation management (Nursery, Planting, Maintenance)*

Performance of a company's management, will be reflected by the presence of employees demands. In the monitoring, it was shown that it was not found problems occured relating to the employees demands.

7) *Local Community Empowerment*

The implementation of Corporate Social Responsibilty programs highly affect in avoiding conflict. The Corporate Social Responsibility that has been done are improvement of village land roads, and providing paddy seeds. Proper village land road will lead to improve local community's bussiness opportinities and community's incomes. Lan acuisition has been conducted in accordance with the procedure and precautionary principles involving local viilage community's leaders.

8) *River Water Quality*

The company peformed monitoring on rivers flowing within the concession area and according to the Laboratory of Center of Health and Safety – Samarinda, it was shown that those river water quality indicated less than the threshold of Environmental Quality Standard. This means the presence of oil palm plantation did not generate significant impacts to those river water quality.

9) *Protected Plant and Wildlife Species*

The Company has made efforts to keep and maintain HCV areas and it was not found interferences on the protected plant and wildlife species.

10) *Forest and Land Fires*

The company implemented *Zero Burning Principle* in land clearing and has established an *emergency response team* for forest/land fires. Health and Safety Management Systems has also been implemented and provided with certificated person as the Health and Safety Expert in each work unit.

According to the review on the *SEIA* documents, it is shown that the presence of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate Plantation has generated impacts, both positive and negative, to the environment and the surrounding communities. In order to minimize the negative impacts, the company of PT. PP London Sumatera Indonesia Tbk – Indah Permai Estate commited to implement the *Environmental Management Plan (RKL)* and *Social Management Plan* that have been prepared..

The presence of the company has delivered positive impacts to the local communities especially of Kaliq Village, in the forms of : employment opportunities, improvement of village land roads, and providing paddy seeds. Meanwhile, those positive impacts have not been delivered to the local communities of *Dasaq and Dingin villages* due to the company's management of Indah Permai Estate is in the beginning step in the form of alnd acquisition and introducing the company's plantation development plan to the surrounding communities, relevant viilage and subdistrict officials and other local stakeholders.

The presence of the company has also the potentials to generate negative impacts to the environment and the surrounding communities, namely social conflicts in the local community relating to the rights of land ownership.

Related to the impacts both, that have been generated and potentially generated, local communities hope the company making efforts to reduce the negative impacts and increase the positive impacts, consisting of :

No	Community's Hopes and Proposals
1	More intensif introducing the company's plantation development plan to the surrounding communities
2	Facilitate the village area boundaries disputes settlement
3	Accelerate the actualization of Plasma Partnership Program
4	Involving village government officials in land acquisition to reduce overlapping land ownership
5	More opportunities for local communities as permanent employees.
6	Social support programs (CSR) that are currently needed include : providing educational facilities, scholarship; worship facilities, providing paramedic and medicine, and training on aquaculture and agriculture, and seed aid.
7	Support in improvement and maintenance of village land roads.

4.2. HCV

The Assessment has identified HCVs within the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate containing HCV1 (HCV1.2, and HCV1.3), and HCV4 (HCV4.1 and HCV4.2) which covering areas of 1,650.23 ha containing River Riparian and Buffer Zone of Swamp Areas of 86,82 ha, Swamp Areas of 181.01 ha, and Hilly Secondary Forest Areas of 1,369.22 ha with the following details :

Location	Type of HCV	River Widthi (m)	River Riparian Width (m)	Length of River (km)	Area (Ha)
A. Riparian Ecosystem					
River. Mehow	HCV1.2, HCV4.1	3	10	2.59282	4,33
River Lawang	HCV4.1	5	10	0.632234	12,15
River IP Timur	HCV4.1	10	25	4.39847	21.96
Buffer zone of Mehow Swamp	HCV1.2, HCV4.1				86,82
Total A.					**125,26**
B. Mehow Swamp					181.01
Total B.					**181.01**
C. Hilly Area					
Secondary forest within Indah permai Estate	HCV1.2, HCV1.3, HCV4.2				1.343,04
Total C.					**1.343,04**
HCV Area (ha)					**1,650.23**
Concession Area (ha)					**6,936.00**
			%		**23.79%**

1) HCV1. Areas Containing Important Level of Biodiversity

a. HCV1.1. Areas Containing or Providing Support Functions to the Biodiversity of Protected or Conservation Areas

In the assessment, it was shown that it is found Protection / Conservation Areas namely Padang Luwai Nature Reserve Area and it is far from the location of the company's area with the distance of about ± 10.5 km to the west; and there is no interconnection between them.

It was also shown that there are protection areas found within the the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate, namely *riparian areas of* Mehow river, Lawang river, and IP Timur river which are not connected with the *Padang Luwai Nature Reserve Area*.

It indicated that there was no area containing HCV1.1 within the area of PT. PP London Sumatera Indonesia Tbk - Indah Permai Estate.

b. HCV1.2. Endangered Species

In the field observation, it was found 147 plant species which identified in 55 families in the area of PT. PP. London Sumatera Tbk - Indah Permai Estate. According to the plant species protection status, there was a species that identified as the protected plant species under PP No 7 of 1999 namely Ulin *(Eusideroxylon zwageri*). It was not found plant that identified as the species listed in the CITES Appendix.

It was also found 3 plant species that identified as the species listed in the Red List of IUCN containing 2 plants include the *VU (Vulenarable)* species namey Medang batu *(Hopea pachycarpa)* and Ulin *(Eusideroxylon zwageri)*, and a plant that includes the *EN (Endangered)* species namely Meranti bukit *(Shorea bracteolata).*

In the field observation, it was revealed that the remaining forested areas are relatively in good condition. Under optimal management. those remaining forested areas are expected to provide functions as habitat of those rare and endangered plant species found. It shows that there are a plant species, namely Medang batu *(Hopea pachycarpa)*. that can be considered as HCV1.2 which located in the Buffer Zone of Mehow Swamp and Riparian area of Mehow Swamp.

While in terms of wildlife, it was found 65 species in the area of PT. PP. London Sumatera Tbk - Indah Permai Estate containing 14 species of mammals, 46 species of aves and 5 species of reptiles. It was identified a species that can be condisdered as the HCV1.2 namely Owa ungko *(Hylobates muelleri),* which includes in the *EN/Endangered* species Category of IUCN Red List; listed in the CITES Appendix II and identified as the protected wildlife species under PP No 7 of 1999. Although the Owa ungko *(Hylobates muelleri)* is not found as the CR/*Critically Endangered* as mentioned in the HCV1.2 Criteria, the presence of the species is very important and therefor, the species of Owa ungko *(Hylobates muelleri)* is then determined as HCV. Location of the species are in the Buffer Zone of Mehow Swamp, Riparian area of Mehow Swamp and Hily Secondary Forest Areas.

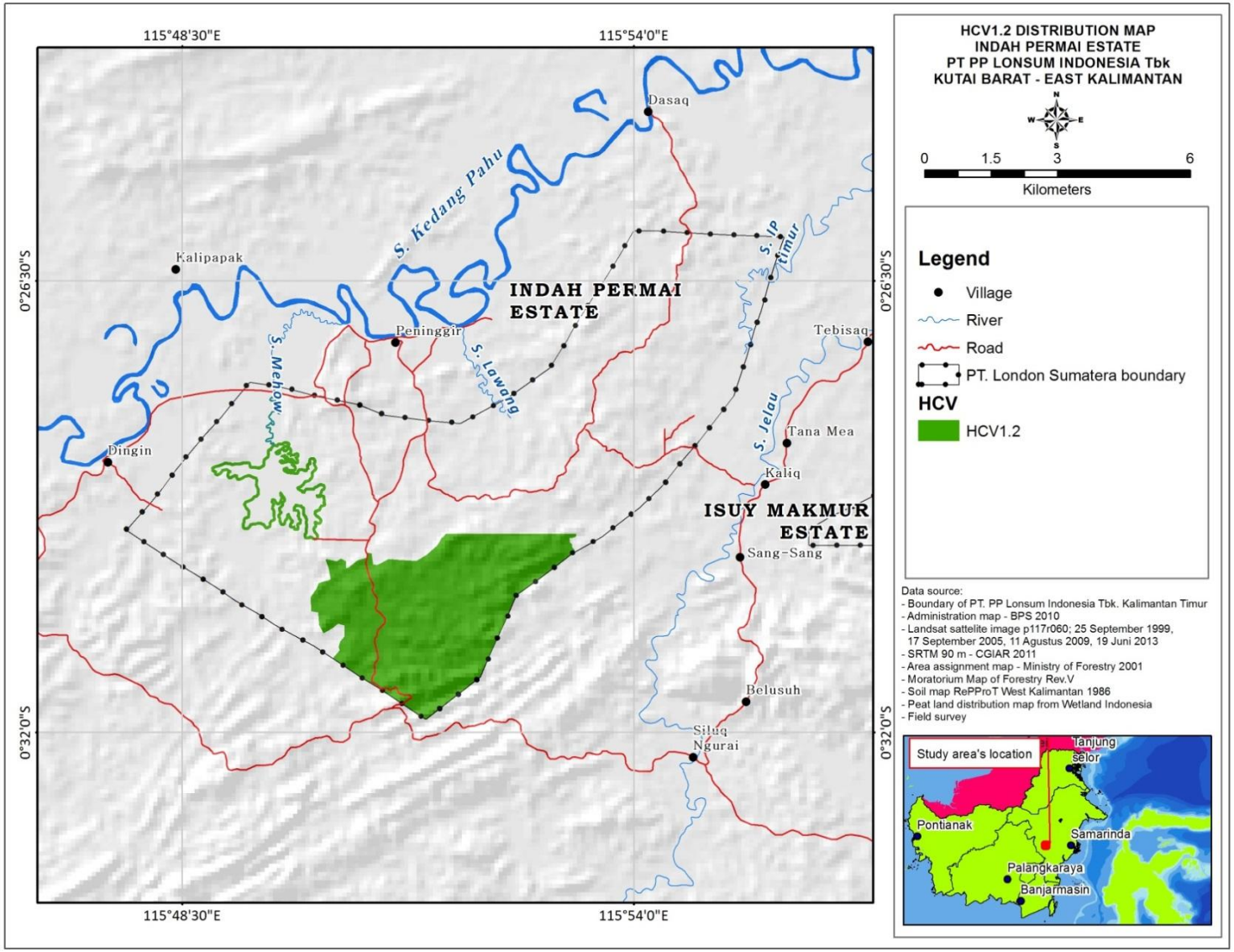


Figure-8. Map of Areas Containing HCV1.2 in The Area of PT. PP. London Sumatera Tbk - Indah Permai Estate

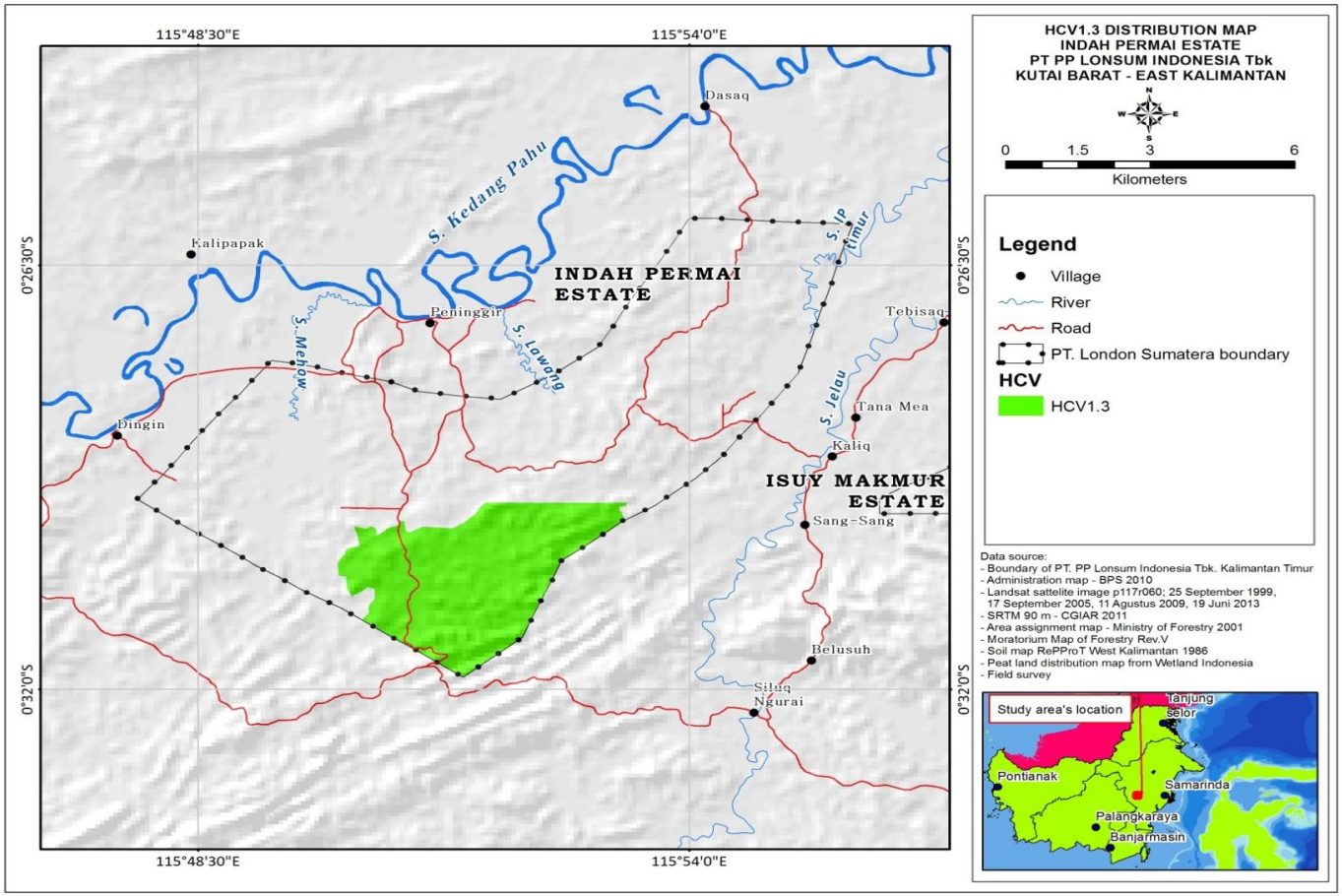


Figure-9. Map of Areas Containing HCV1.3 in The Area of PT. PP. London Sumatera Tbk - Indah Permai Estate

c. HCV1.3. Areas That Serve as habitat for threatened species with limited dispersion or under protection that is able to survive (Viable Population)

According to the plant species protection status, there was a species that identified as the protected plant species under PP No 7 of 1999 namely Ulin *(Eusideroxylon zwageri*). It was not found plant that identified as the species listed in the CITES Appendix. It was also found 3 plant species that identified as the species listed in the Red List of IUCN containing 2 plants include the *VU (Vulenarable)* species namey Medang batu *(Hopea pachycarpa)* and Ulin *(Eusideroxylon zwageri)*, and a plant that includes the *EN (Endangered)* species namely Meranti bukit *(Shorea bracteolata).*

It shows that there were areas that detemined containing HCV1.3 which located in the Hilly Secondary Forest Areas within the area of Indah Permai Estate

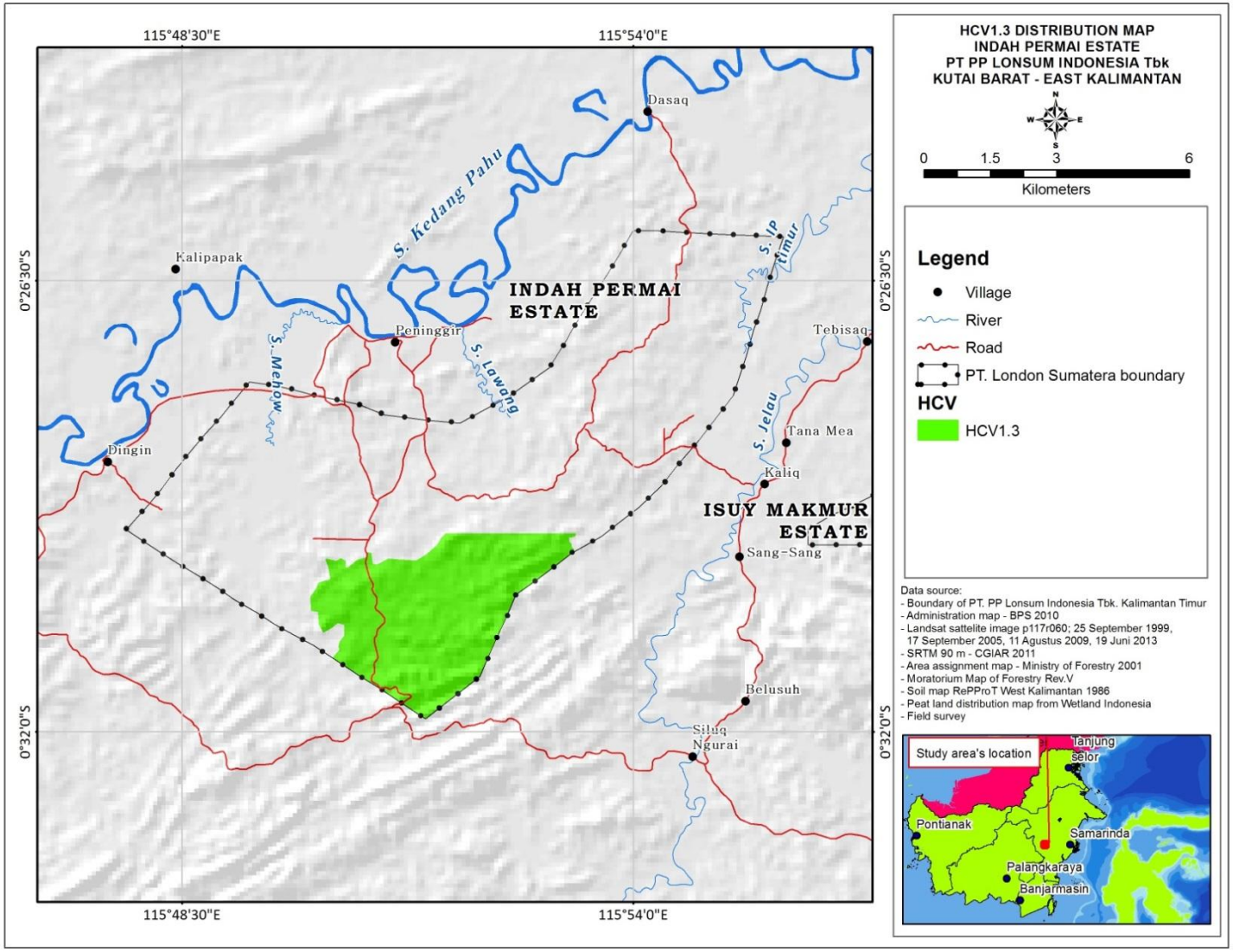


Figure-10. Map of Areas Containing HCV1.3 in The Area of PT. PP. London Sumatera Tbk - Indah Permai Estate

In terms of wildlife, it was found 16 wildlife that identified as the protected species under PP No 7 of 1999 and 1 wildlife species that included in the *Endangered* (EN) Species Category, 3 wildlife identified as the *Vulnerable* (VU) Species Category, 1 wildlife identified as the species listed in the Appendix I CITES, 14 wildlife identified as the species listed in the Appendix II CITES and 1 wildlife identified as the species listed in the Appendix III CITES.

In the field observation, it was revealed that the remaining forested areas are relatively in good condition. Under optimal management. those remaining forested areas are expected to provide functions as habitat of those rare and endangered plant species found. It shows that there were areas containing HCV1.3 which located in the Hilly Secondary Forest Areas within the area of Indah Permai Estate.

d. HCV1.4 Areas Serving as Habitat for Species or Groups of Species that are Used Temporarily

According to the findings and analysis in the HCVs assessment, it shown that it was not identified migratory species, especially raptor species group and other "wader" species group. This means that it was not identified area containing HCV1.4 within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate

2) HCV2. Landscapes That Important for Natural Ecological Dynamics

a. HCV2.1. Wide Landscapes Containing Capacity to Maintain Natural Ecological Process and Dynamics

The area of PT. PP. London Sumatera Tbk - Indah Permai Estate is approximately 0.026% of forest areas in the East Kalimantan; meanwhile the area of PT. PP. London Sumatera Tbk - Pahu Makmur and Kedang Makmur Estates are approximately 0.026% of forest areas in the East Kalimantan; and it is approximately 0.05% of forested areas in the East Kalimantan.

It shows that the forested area in the concession of PT. PP. London Sumatera Tbk - Indah Permai Estate is less than 20,000 ha and this means that it was not identified area containing HCV2.1.

b. HCV 2.2. Natural Landscapes Containing Two or More Ecosystems with Continous (uninterrupted) Borderlines

There are found two types of ecosystems in the area of PT. PP. London Sumatera Tbk - - Indah Permai Estate namely lowland forest ecosystem and peat ecosystem. According to the land cover analysis, it is shown that the area were mostly in the forms of oil palm plantation area and shrubs. The area was dryland ecosystem and not found transitional ecosystem. This means that it was not identified area containing HCV2.2 within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate.

c. HCV2.3 Areas Containing Representative Population of Natural Viable Species

In terms of the representativeness, the natural species found in the area of PT. PP. London Sumatera Tbk - Indah Permai Estate are not highly possible to survive due to a) the exact number of those species population at this time are not yet known, b) there is possibilities that it will continue to change, and c) the HCV areas that have been determined may be unable to provide functions in supporting those species population to

survive. This means that it was not identified area containing HCV2.3 within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate

3) HCV3. Areas Containing Rare or Endangered Ecosystems

According to the analysis of *RePPProT* Data, it was shown that it was found rare or endangered landsystem, namely LWW *(lawanguang)*, TWH *(Teweh)* dan MPT *(Maput)*. within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate.

It is also identified that those rare or endangered ecosystems have been the degraded areas before managed by PT. PP. London Sumatera Indonesia Tbk - Indah Permai Estate. This means that it was not found area containing HCV3 within the area of Indah Permai Estate

4) HCV4. Areas Providing Natural Environmental Services

a. HCV4.1. Areas or Ecosystems That Important for Water Supply and Flood Control for Downstream Community

In the HCVs assessment, it was shown that it was not found cloudy forest and karst ecosystem within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate. It was only identified wetland ecosystems and river riparian ecosystems which means there were areas containing HCV4.1. which located in the riparian area of *Lawang River, Mehow River, IP Timur river* and *Mehow Swamp Areas* within the area of Indah Permai Estate.

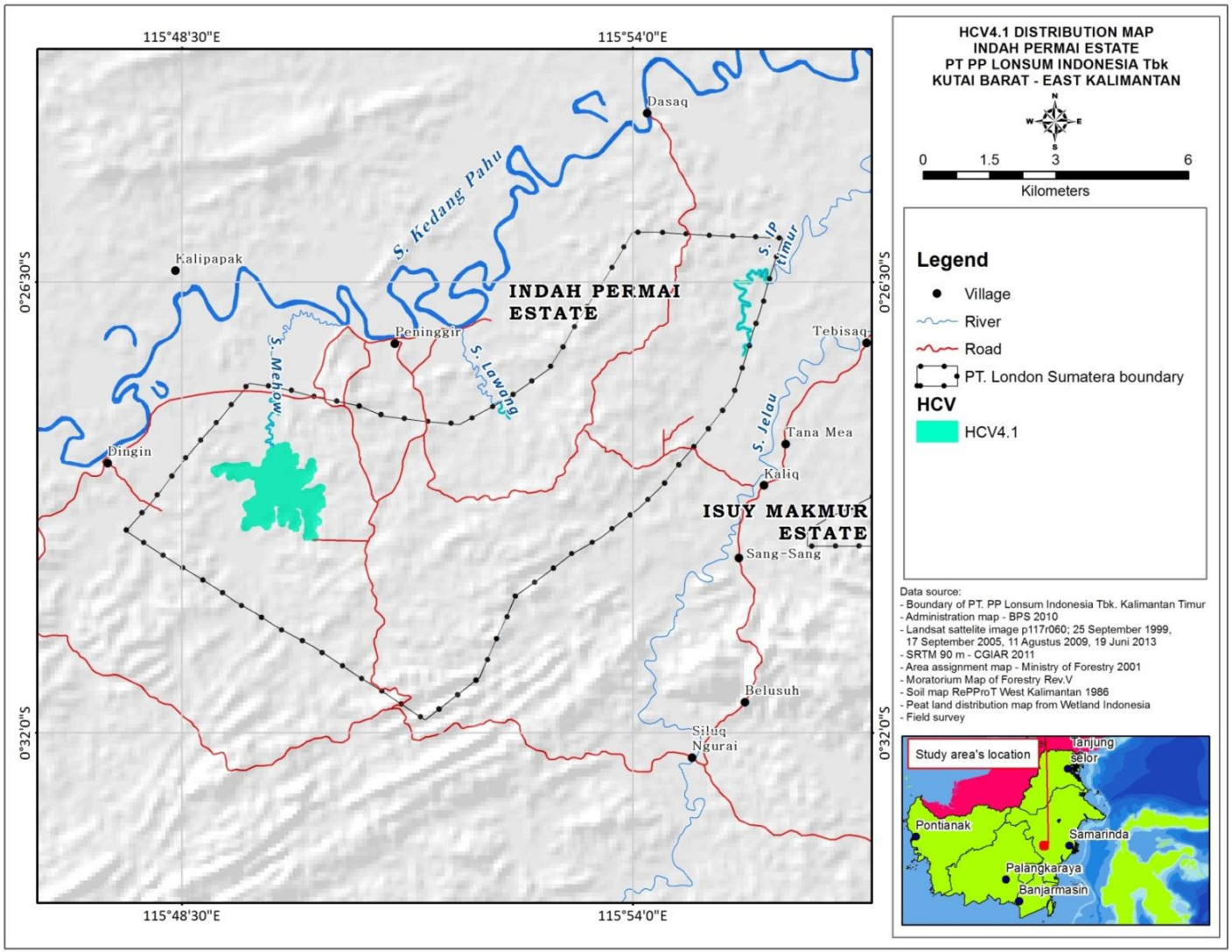


Figure-11. Map of Areas Containing HCV4.1 in The Area of PT. PP. London Sumatera Tbk Indah Permai Estate

b. HCV4.2. Areas That Important for Erosion and Sedimentation Prevention

In the HCVs assessment, it was revealed that the *Erosion Hazard Level* Potential in the area of PT. PP. London Sumatera Tbk - Indah Permai Estate includes heavy to very heavy in land cleared areas especieally in the hill regions and on those soil which composed of red-yellow podsolic. This means that there were areas containing HCV4.2 within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate

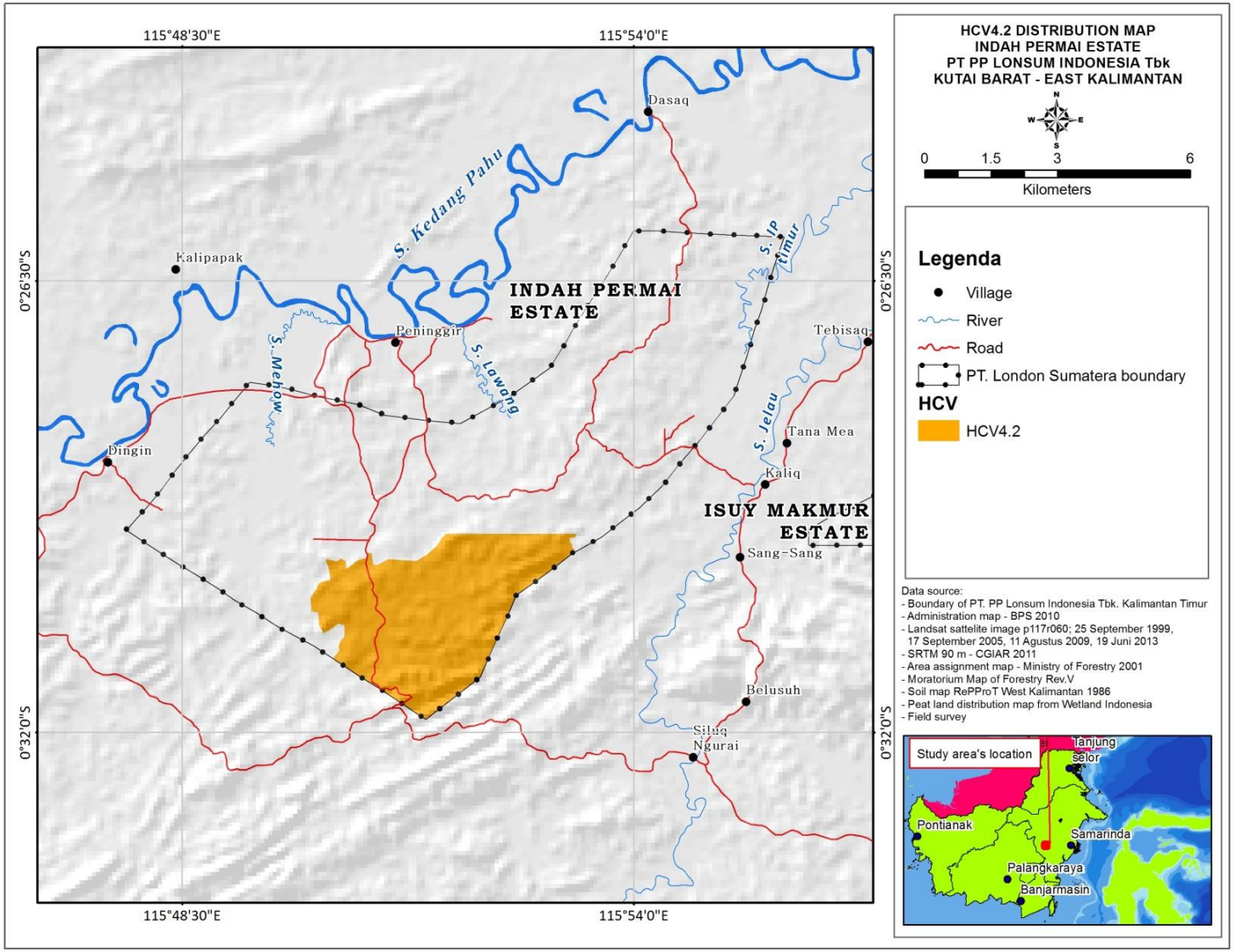


Figure-12. `Map of Areas Containing HCV4.2 in The Area of PT. PP. London Sumatera Tbk Indah Permai Estate

c. HCV4.3 Areas That Serve as Natural Buffer for Preventing from Widespread Forest and Land Fires

Based on information from the local community, it is shown that there has never been a forest and land fires. The remaining forested areas, especially the lowland forest area, in the concession of PT. PP. London Sumatera Tbk - Indah Permai Estate do not provide important functions in the prevention of forest and land fires. While based on observation on the hotspots on February 5, 2014, it was not detected hotspot in the area of East Kalimantan and also in Kutai Barat Region.

This means that there was not area containing HCV4.3 within the area of PT. PP. London Sumatera Tbk - Indah Permai Estate.

5) HCV5. Areas Containing Important Function in Fulfilling Basic Needs for Local Community

Relating to the HCV5, it was not identified utilization of natural ecosystem that includes in the *Important* Category in the fulfillment of village community's basic need. This means that it was not found areas containing HCV5 in the area of PT. PP London Sumatera Tbk - Indah Permai Estate

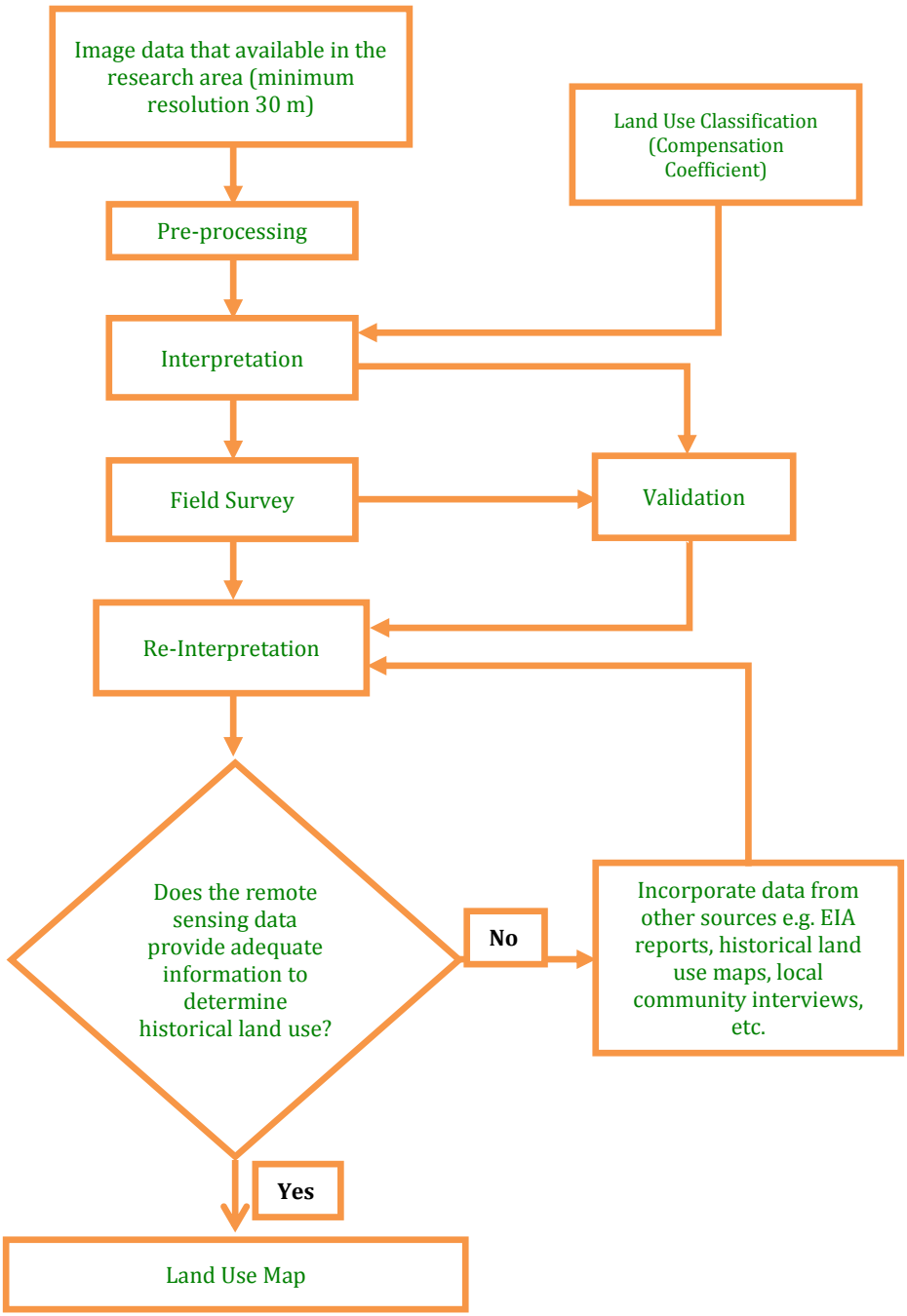
6) HCV6. Areas That Have Important Functions for Local Community's Cultural Identity

According to the HCVs analysis, it was not identified area containing HCV6 in the area of PT. PP London Sumatera Tbk - Indah Permai Estate

Summary of Land Use Change Analysis (LUCA)

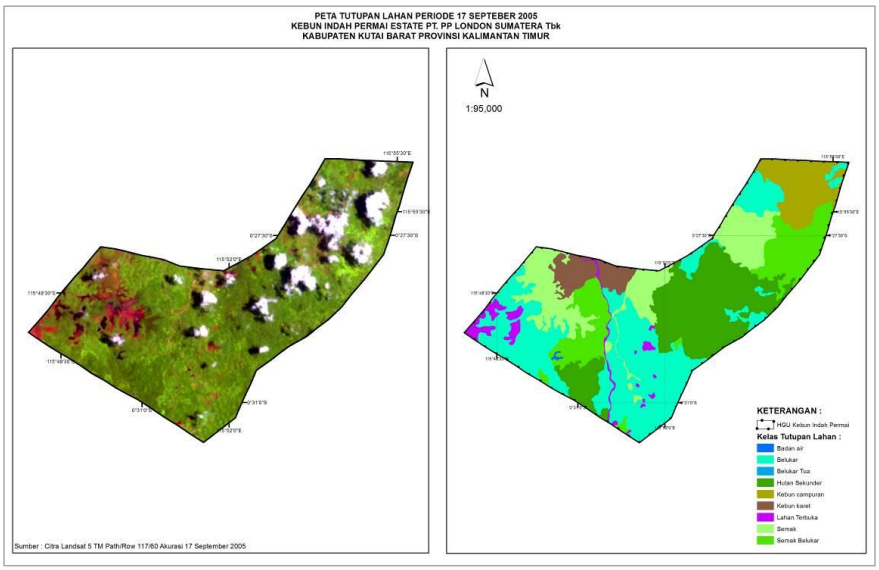
PT. PP. London Sumatera Tbk - Indah Permai Estate also conducted Land Use Cover Change (LUCC) analysis to ensure that there is no deforestation due to land development. PT. PP. London Sumatera Tbk - Indah Permai Estate conducted assessment with collaboration with IPB (Bogor Agriculture University through combination of analysis of satellite imagery from landsat and ikonos and ground check. Stages and process LUCC analysis are as follows:

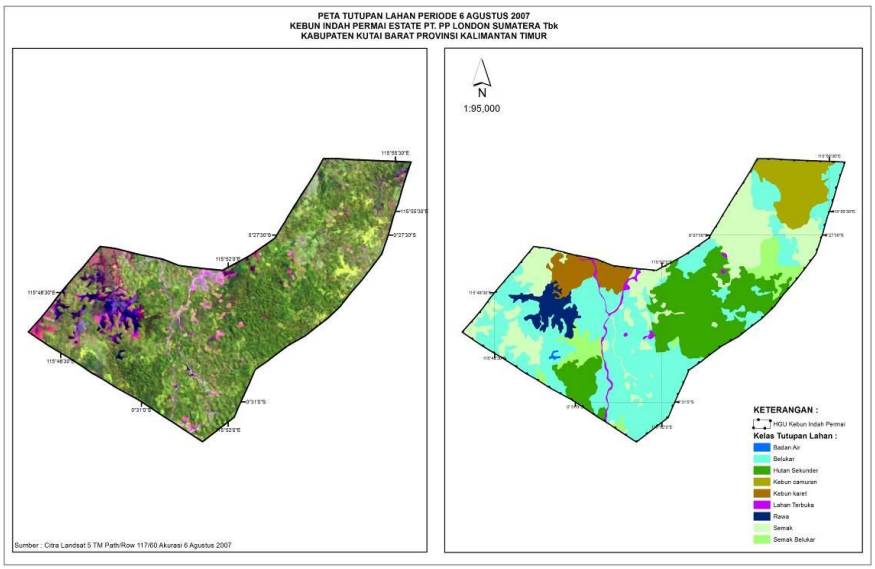
- Collecting Primary and Secondary data follows by document review (i.e: PT. PP. London Sumatera Tbk - Indah Permai Estate Permits/lisences, HCV assessment report and Social Impact Assessmnet report, Landsat Imagery, Planted area map, etc.)
- Data processing of Landsat Imagery and image classification/interpretation
- Land Use Cover Change Analysis
- Field Verification

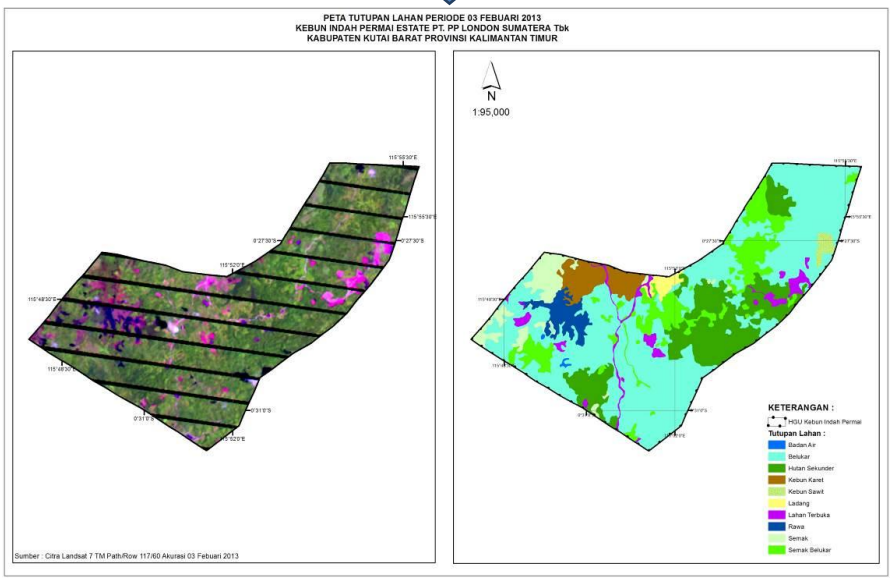


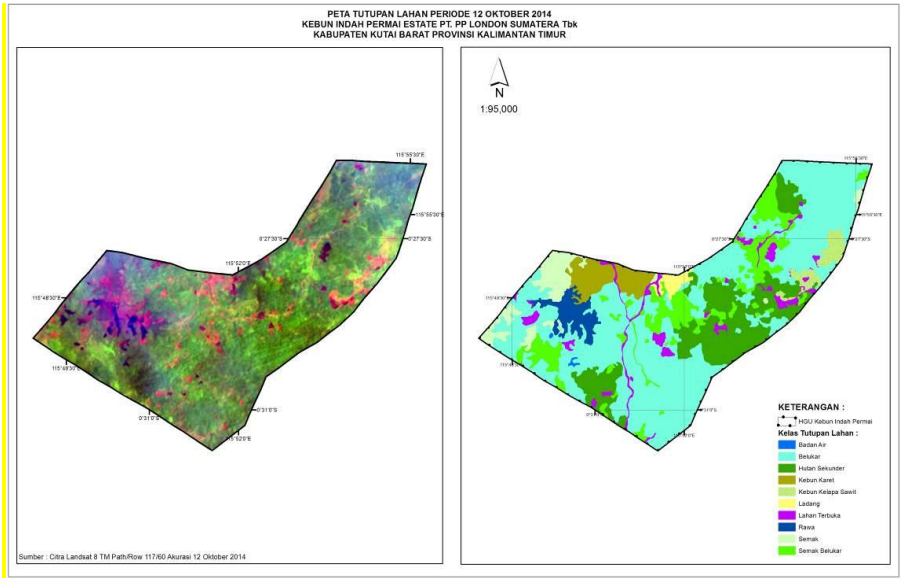
PT. PP. London Sumatera Tbk - Indah Permai Estate had been identified it potential liability of HCV loss area through a land use change analysis study. This study was conducted by IPB, the team was consisted of Ir. Nyoto Santoso, MS as team leader and M. Sayidina Ali. A.Md, Ardhianto Muhammad, S. Hut and Ayu Pradhipta Diza, S. Hut as team member. The LUC Analysis will be submitted to the RSPO in the same time RSPO NPP Summary Report. The result of LUC Analysis with liability disclosure is 0 hectare. The time period scope of PT. PP. London Sumatera Tbk - Indah Permai Estate Land Use Change Analysis study is period: November 2005 – November 2007, December 2007 – Desember 2009, 1 January 2010 – 9 May 2014 and after 1 May 2014.

PT. PP. London Sumatera Tbk - Indah Permai Estate Land Cover Change on the 2005-2010 periods








PETA TUTUPAN LAHAN PERIODE 12 OKTOBER 2014
KEBUN INDAH PERMAI ESTATE PT. PP LONDON SUMATERA Tbk
KABUPATEN KUTAI BARAT PROVINSI KALIMANTAN TIMUR
N
1:95,000
KETERANGAN :
HGU Kebun Indah Permai
Kelas Tutupan Lahan :
Badan Air
Belukar
Hutan Sekunder
Kebun Karet
Kebun Kelapa Sawit
Lastang
Lahan Terbuka
Rawa
Semak
Semak Belukar
Sumber : Citra Landsat 8 TM Path/Row 117/60 Akurasi 12 Oktober 2014

INTERNAL RESPONSIBILITY
Formal Signing Off by Assessors and Company

This document is the updated summary of HCV (High Conservation Value); EIA (Environmental Impact Assessment) and SIA (Social Impact Assessment) in the area of PT. PP London Sumatra Indonesia Tbk - Indah Permai Estate and has been approved by Management of PT. PP London Sumatra Indonesia Tbk - Indah Permai Estate.

Bogor Agricultural University,

Dr. Ir. Nyoto Santoso, MS
Team Leader of HCV and SIA Assessment

Tanggal : 28 Agustus 2014

Statement of acceptance of responsibility for assessments

Assessment result document on High Conservation Value (HCV); Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) of PT. PP London Sumatra Indonesia Tbk - Indah Permai Estate by Faculty of Forestry - Bogor Agricultural University (IPB) will be applied as one of the guidelines in managing palm oil plantation in the area of PT. PP London Sumatra Indonesia Tbk - Indah Permai Estate.

Management of PT. PP London Sumatra Indonesia Tbk - Indah Permai Estate

Win Alamsyah
Agronomy Area Manager Kaltim
Tanggal : 28 Agustus 2014