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**PT Harisa Agro Lestari
District of Barito Utara
Central Kalimantan Province
Indonesia**

**RSPO NEW PLANTING PROCEDURE
SUMMARY REPORT OF SEIA AND HCV ASSESSMENT**

July 2015



RSPO NEW PLANTINGS PROCEDURE

Summary Report of SEIA & HCV Assessment

1. Executive Summary

PT Harisa Agro Lestari (PT HAL) is located in Teweh Tengah Sub District, Barito Utara District of Central Kalimantan Province. PT HAL is one of the Indonesian oil palm companies that have committed to adopt the sustainable management practices in its operation. PT HAL consists of two location permits: No 188.45/218/2012 (size 12,582 ha) issued by the Barito Utara Regent (SK Bupati Barito Utara) dated 1 May 2012 and No. 188.45/273/2013 issued by the Barito Utara Regent dated 16 May 2013 (size 3,068 ha). The total area of its location permit is 15,650 ha.

The Plantation Business Permit (IUP) of PT HAL for area 12,582 ha was issued based on the decree of the regent of Barito Utara No. 188.45/339/2008 dated 29 April 2008, the first extension of Plantation Business Permit on 15 September 2011 with number of No. 188.45/366/2011, second extension on 16 May 2013 with the number of No. 188.45/272/2013 and third extension on 21 May 2015 with number of No 188.45/340/2015. Plantation Business Permit (IUP) of PT HAL for area 3,424 ha was issued on 18 December 2012 No. 188.45/522/2012. The Social Environmental Impact Assessment (AMDAL) of PT HAL was approved by Environmental Impact Assessment Commission Barito Utara District and Environmental Permit (Izin Lingkungan) was approved by Barito Utara Regent No. 188.45/234/2013 dated 7 May 2013.

PT HAL has been adopted as a member of the Roundtable on Sustainable Palm Oil (RSPO) (membership number 1-0186-15-000-00) in June 2015. As part of its commitment to RSPO standards, PT HAL has enforced the RSPO New Planting Procedure with immediate effect. As part of the management of sustainable oil palm cultivation, PT HAL has conducted Social Impact Assessment (SIA) and HCV assessment include land use change analysis (LUCA) in May 2015 by Aksenta, whose team leader has been licensed by the HCV Assessor Licensing Scheme (Provisional ALS15039IS). In addition, PT HAL has also conducted Carbon Stock Assessment by Aksenta. The land use change and green house gases emission (GHG) analysis is estimated using RSPO GHG Assessment Tool for New Oil Palm Planting dated December 2014. As per RSPO requirements, carbon stock values and GHG emission assessment report has been submitted to the RSPO Emission Reduction Working Group separately. The self declaration using “Reporting Template for Disclosure of Areas Cleared

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without Prior HCV Assessment since November 2005”, and “The Reporting Template for RSPO Historical Land Use/Cover Analysis and Compensation Liability” will be submitted to RSPO.

The land use change analysis was used to determine changes to the land covers since 2005. RSPO proxies were used to indicate changes to the HCV status. The land use change analysis based on landsat satellite imagery confirmed that there are no primary forests in the PT HAL concession. The landsat satellite imagery of November 2005 also showed that shrubland is the dominant land cover in the concession. In the May 2015 satellite imagery and from groundtruthing (16-25 May 2015), shrubland remained the dominant land cover in PT HAL concession.. Based on the result of the HCV Assessment, the types of HCV dominated in PT HAL are HCV 1 ; HCV 3 dan HCV 4. The area indicated as HCV is spread through 14 spots of location. HCV area in PT HAL is amounted to 2,157.1 ha of the total location permit of PT HAL. The HCV consists mainly of secondary forest, river and the riparian buffer zone. The proposed oil palm planting are not with HCV areas.

The result of the social impact assessment by Aksenta shows that there are many positive impacts will be enhanced for the surrounding communities and that there are some potential negative impacts for the surrounding community. The potential positive impacts are the new source of income and/or additional financial assets for the surrounding community, especially those who have been working for PT HAL. On the other hand, community land might shrink and the community access to clean water might be disturbed. In order to successfully manage the potential social impact, risk and issue, PT HAL will be developing a strategic and systematic plan. The main strategy PT HAL is to implement social management plan immediately and integrate the plan to the whole plantation operation.

In order to successfully manage the potential social impact, risk and issue, PT HAL must develop a strategic and systematic plan. The social issue and risk could not be handled in a short term, as PT HAL must possess a long-term perspective and continuous improvement. The main recommendation of this assessment is that PT HAL should implement social management plan immediately and integrate the plan to the whole plantation operational.

2. Scope of the HCV & SIA Assessment

2.1. Organizational Information and Contact Person

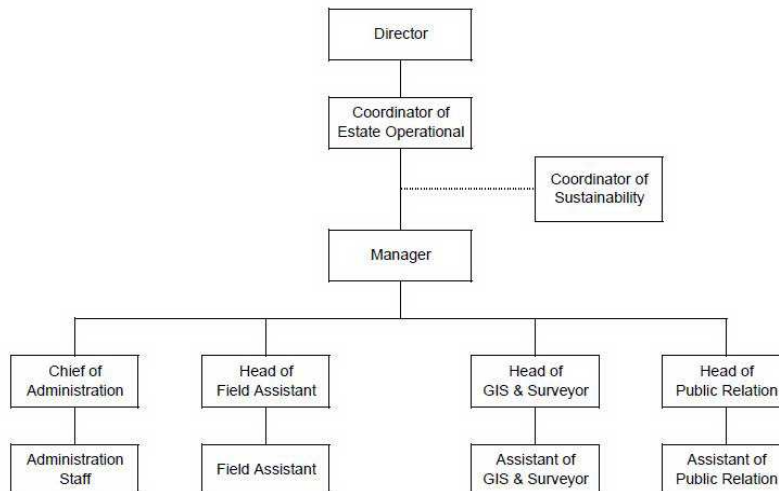
Table 1. Profile and Information of PT. Harisa Agro Lestari

Profile	Information
Company name	PT Harisa Agro Lestari
Deed of Establishment	No. 238, dated on 27 July 2007 Notary Linda Kenari SH MH.
Type of Business	Oil Palm Plantation & Processing
RSPO membership number	1-0186-15-000-00
Location	Desa Sei Rahayu I, Sei Rahayu II, Rimba Sari, Beringin Raya, Datai Nirui dan Desa Pendreh, Kecamatan Teweh Tengah, Kabupaten Barito Utara, Provinsi Kalimantan Tengah.
Area	Location Permit No 188.45/218/2012 (size 12,582 ha Location Permit No. 188.45/273/2013 (size 3,068 ha)
Administrative Address	Desa Rimba Sari RT 03 Kecamatan Teweh Tengah Kabupaten Barito Utara, Propinsi Kalimantan Tengah, Indonesia.
Contact Person	Dita Galina Sustainability@indhal.com
Geographical Location	0°48'51.30"-0°58'42.87"S, 114°39'53.45"- 114°52'11.83" E
Its surrounding entities	The northern side of PT HAL concession borders the main road of PT Multi Persada Gatra Megah and PT Satria Abdi Lestari. The eastern side of PT HAL borders Barito river ; the southern side of PT HAL borders IUPHHK PT. Joloi Mosak and the western side of PT HAL borders IUPHHK PT. Bina Multi Alam Lestari.

Personnel involved in planning and implementation

1. Johnson (Coordinator of Estate operational)
2. Baso Arsadi (Head of field assistant) and its Field Assistant
3. Dita Galina Environment Division / Sustainability Coordinator
4. Dadang Kurnia (Sustainability)
5. Abidin (Public Relation/Legal Compliance)
6. Heriyanto (GIS & Surveyor)
7. Septian (GIS)

The NPP management chart of PT HAL



2.2. List of Legal documents, regulatory permits and property deeds related to the project area

The following are lists of licenses held by PT HAL

Table 2 Relevant legal documents, regulatory permits and property deeds of PT HAL

No	Permits	Remarks
1	Taxpayer Notification Number	02.708.680.0-714.001
2	Certificate Of Company Registration (TDP) (TDP)	15.02.1.01.00230, 26 May 2015
3	Business Permit (SIUP)	510/154/SIUP KECIL/KPPT, 26 May 2015
4	Disorders Permit (HO)	504/389/KPPT, 26 May 2015
5	Place of Business Permit	503/389/KPPT, 26 May 2015
6	Certificate Of Domicile	474/30/DS-RS/IV/2015, 08 April 2015
7	Principle Permit for area 23,000 Ha	049.2/60/2008, 25 February 2008
	Principle Permit for area 6,500 Ha	525/95/Ek.SDA, August 2012
8	Location permit for area 12,582 Ha	188.45/218/2012, 1 May 2012
9	Release Recommendation Forest Areas of Barito Utara Regency	525/140/Adm.Ek.SDA, 19 September 2013
10	Release Recommendation Forest Areas of the Governor of Central Kalimantan size 5288.95 Ha	525/0899/EK, 16 September 2014
11	Social Environmental Impact Assessment (AMDAL)	188.45/233/2013, 7 May 2013
	Environmental Feasibility Approval	188.45/233/2013, 7 May 2013
	Environmental Permit	188.45/234/2013, 7 May 2013
12	Plantation Business Permit (IUP) size 12.582 Ha	188.45/339/2008, 29 April 2008
	Extention Plantation Business Permit size 12.582 Ha	188.45/366/2011, 15 September 2011
		188.45/272/2013, 16 May 2013
		188.45/340/2015, 21 May 2015
13	Location permit for area 3,068 Ha	188.45/273/2013, 16 May 2013
14	Plantation Business Permit (IUP) size 3,424 Ha	188.45/522/2012, 18 December 2012
15	Wood utilization permit / Izin Pemanfaatan Kayu (IPK)	522.2/796/HUTBUN III, 04 June 2014



Figure 1. Location of PT. Harisa Agro Lestari (Central Kalimantan) in Indonesia Country



Figure 2. Location of PT. Harisa Agro Lestari in Central Kalimantan

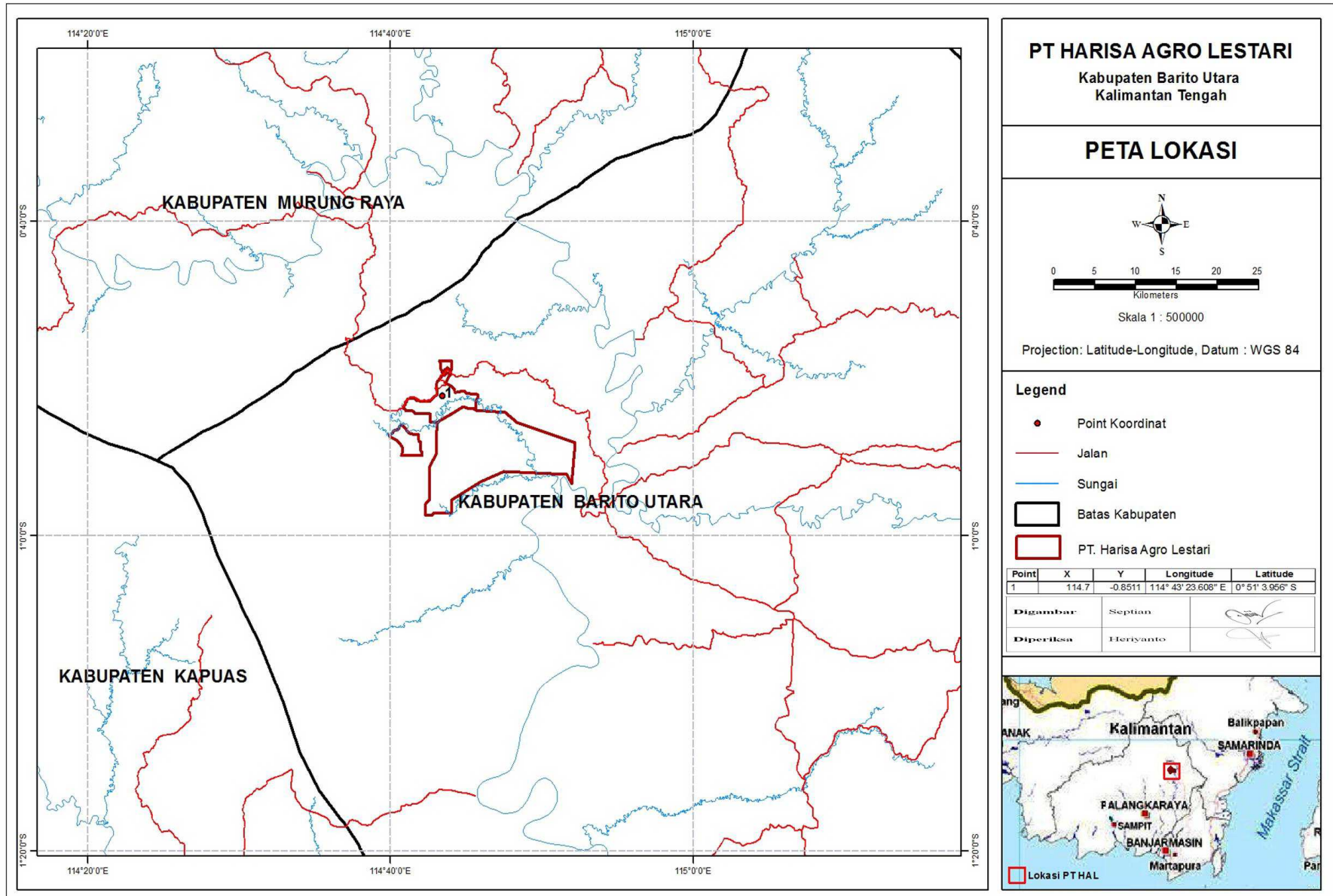


Figure 3 Location of PT. Harisa Agro Lestari in District of Barito Utara

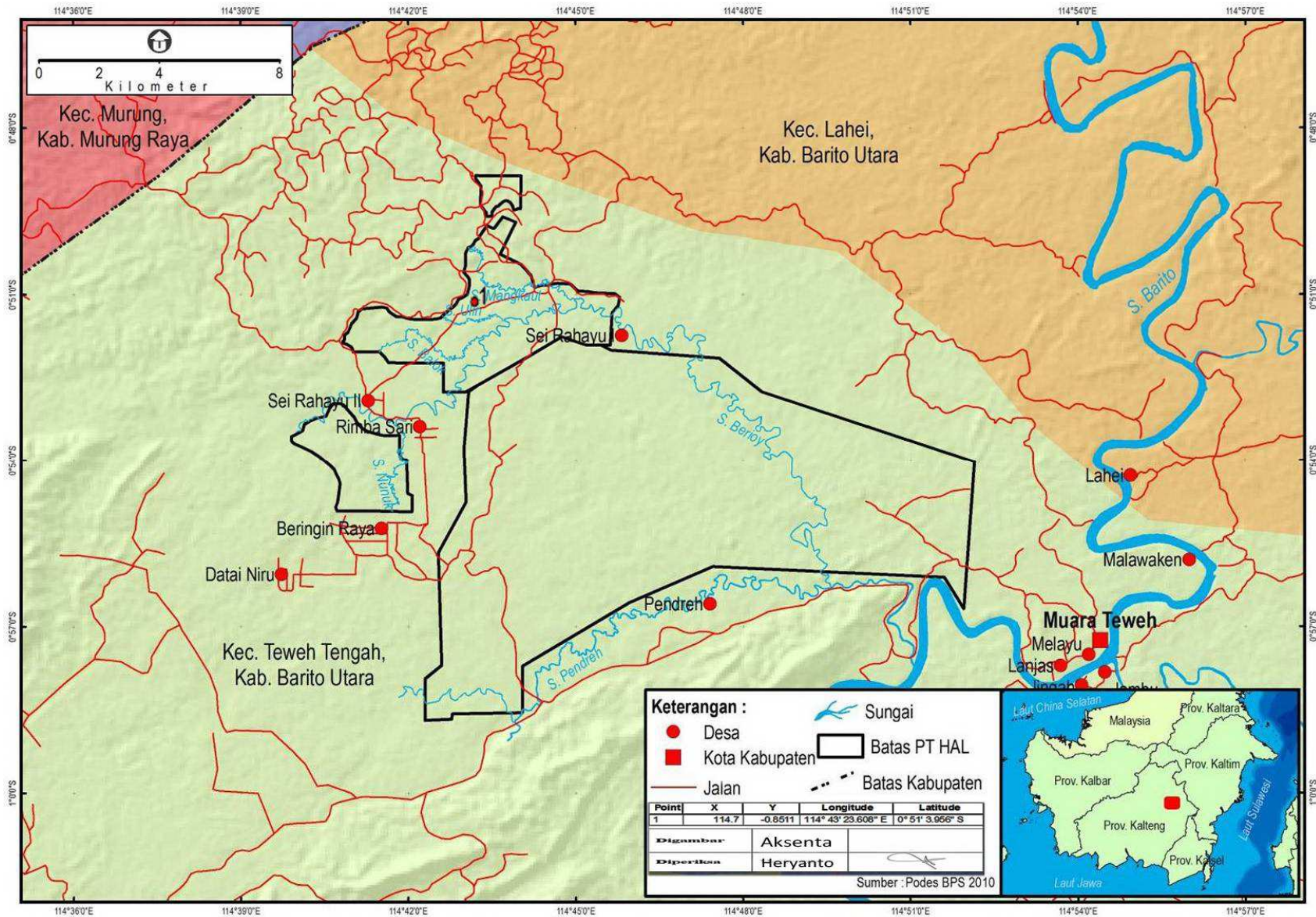


Figure 4 Location of PT Harisa Agro Lestari (Central Kalimantan) and Surrounding Entities

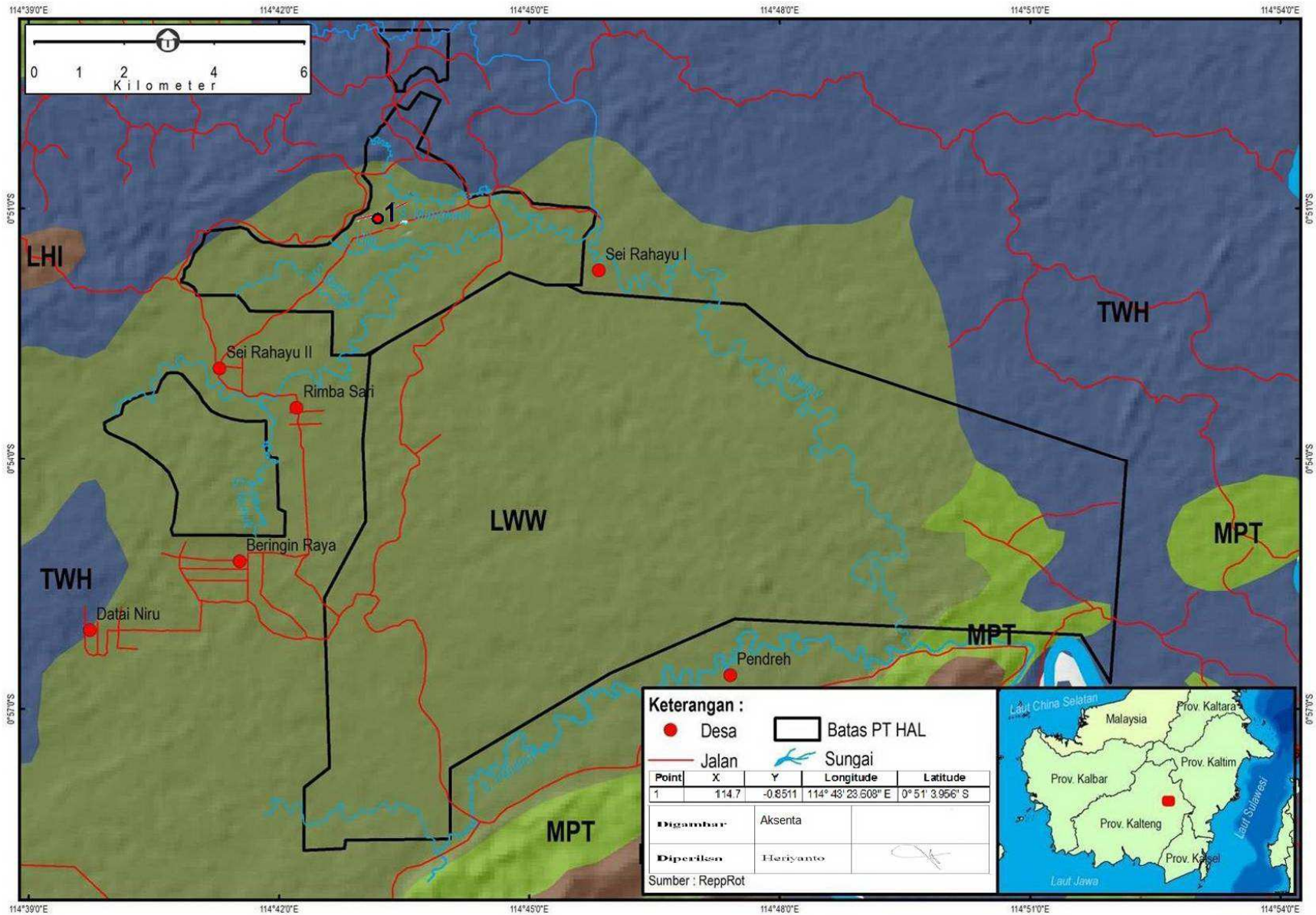


Figure 5 Land Suitability PT Harisa Agro Lestari

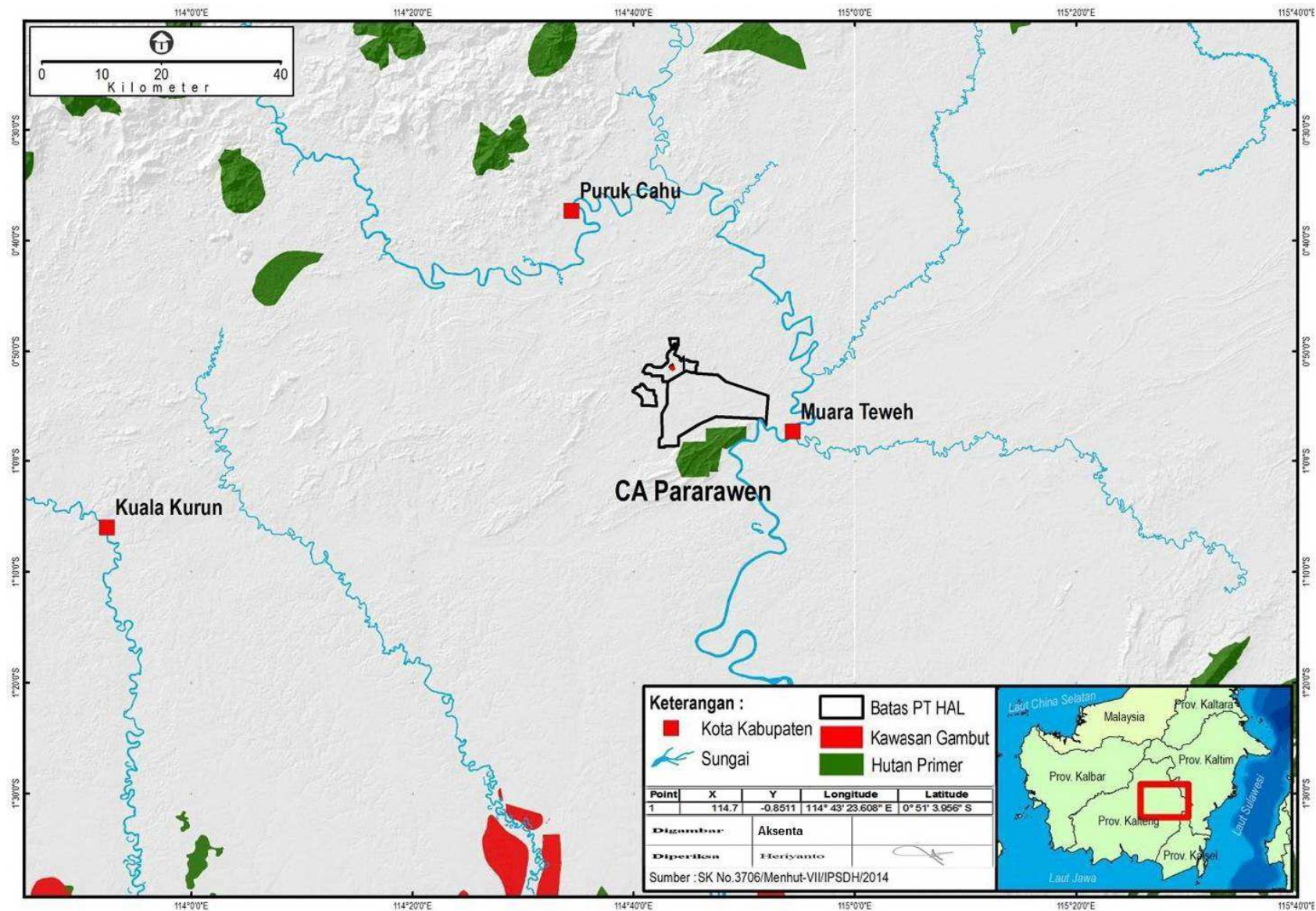


Figure 6 Indicative Map on Moratorium of new concession permit for Forest Use and Utilization (Revision VI), SK Menhut No. 3706/Menhut-VII/IPSDH/2014, dated on 13 May 2014

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2.3. Area and Time Plan for New Plantings

The new planting area of PT HAL is in its Location Permit, the proposed new planting is scheduled for 2015-2020. In accordance with the operational management data of PT HAL, which consists of the total estimated new planting area is ±9,541.90 ha, comprised of ± 7,250.22 ha plantable area of nucleus / estates, ±1,910.00 ha for smallholders scheme, ± 381.68 ha for infrastructure & emplacement, ±2,157.10 Ha for HCV or conservation area and balance area ±3,951.00 ha is unplanted (others). The proposed new plantings are with no any primary forest, no any peat lands and no HCV area being planted.

The process of land development and palm oil planting will follow RSPO New Planting Procedures (NPP). Undertaken activities are land acquisition or compensation to the land owners and as addition activity is socialization of plantation development plan or Free Prior and Informed Consent (FPIC). After the New Planting Procedures has been approved by RSPO, land clearing and planting will commence in 2015 as shown in Table 3.

Table 3. Time plan for New Planting in PT HAL

Time plan for New Planting in PT HAL

Estimate Develop Area (±Ha)				HCV Area (±Ha)	Others/ Unplanted Area (±Ha)	Total Location Permit (±Ha)
Nucleus	Smallholders	Infrastructure & Emplacement	Total Develop			
7,250.22	1,910.00	381.68	9,541.90	2,157.10	3,951.00	15,650

Years of Develop

Proposed	Years of Develop						Total
	2015	2016	2017	2018	2019	2020	
Nucleus	642.51	1104.53	954.09	1331.98	1475.63	2003.16	7,511.90
Smallholders	-	-	586.45	776.46	547.09	-	1,910.00
Total	642.51	1,104.53	1,540.54	2,108.44	2,022.72	2,003.16	9,421.90

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3. Assessment Process and Procedures

3.1. Environmental Impact Assessment (EIA)

The EIA was carried out by the following assessors;

NO	Role	Name	Skill And Expertise
1	Team Leader	Dr. IR. H. Jailani, MP	Doctor of Agriculture. Experienced in environmental impact assessment (AMDAL), especially in the development of oil palm plantation.
2	Team Member	Adi Susanto, S.Pi, M.Si	Magister of Science (M.Si) in hydrology. Experienced in preparing the AMDAL document and as a reviewer of environmental management in coal company and oil palm company in Kalimantan.
3	Team Member	Eddy Elminsyah Jaya, SH, SE, S.Pi, MS	Bachelor Degree in Fisheries. Experienced in AMDAL assessors committee in Lingkungan Hidup Office in Banjarbaru (2011-current). A member of UKL-UPL team in coal mining company, plantation company and hospitals in Kalimantan.
4	Team Member	Ir. Udin Badrudin MM	Master of Management. Experienced in preparing AMDAL/UKL-UPL study in some of the coal mining companies and service companies in Kalimantan
5	Team Member	Ir. Gunawan, MP	Silvicultural Post-graduate. Experienced in preparing AMDAL/UKL-UPL study in some of the coal mining companies and services companies in Kalimantan.
6	Team Member	Ir. Setia Budi Peran, M.S	Master of Forestry. Experienced in preparing AMDAL/UKL-UPL (focus on Forest Ecology) in some of HPH companies, mining companies and service companies in Papua and Kalimantan.
7	Team Member	Basuki Rahmad, S. Hut	Doctor of Forestry. Experienced in preparing AMDAL/UKL-UPL study in some of coal mining companies and service companies in Kalimantan

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SEIA (ANDAL) was conducted through matrix and flow process analysis to identify the potential impact of environmental and social aspects, as well as group interaction to evaluate the identified potential impact. The following data was collected as part of this assessment:

A: Geophysical and Chemical data

Information about the geological, physical and chemical characteristics of the study area was collected before PT HAL's operations began. The primary data collected includes: regional climate, micro-climate, air quality, noise, physiography, soil characteristics and hydrology.

B: Biological data

The land use change which will result from PT. HAL operations has the potential to have a significant impact on the biology and ecology of the study area. Primary data concerning the terrestrial biota (flora, fauna, plant pests & diseases) and aquatic biota (plankton, benthos & nekton) was therefore collected as part of this study.

C: Social data

Social data is needed to determine the impact of PT. HAL proposed development on the surrounding communities. Data concerning the demography, economy and culture of these communities was collected as part of this assessment.

D: Public health data

Data concerning disease vectors, sanitation, health facilities, incidence of disease and public health behavior.

Both direct and indirect methods were used to collect the data relating to each component of this assessment. The geophysical and chemical information was obtained from fieldwork (primary data). The information concerning socio-economic status and public health of the surrounding communities was collected through both fieldwork (primary data) and desktop analysis (secondary data). The potential impact of each stage in process of developing an oil palm plantation and palm oil mill (preparation phase, construction & operation) on each aspect of concern (geophysical & chemical, biological, social & public health) was assessed as part of this study.

3.2. Social Impact Assessment (SIA)

The Social Impact Assessment (SIA) for PT HAL was conducted in May 2015 by Aksenta, who the team leader SIA from Aksenta have been licensed by the HCV Assessor Licensing Scheme (Provisional ALS15037NM.)

The team SIA involved in this assessment and their credentials are summarized in Table 4

Table 4 SIA Assessor Team and Qualification

No	Roles	Name	Experience & Qualifications
1	Team Leader	Nandang Mulyana	Experienced in the education, environment, socio-economic and community development program sectors/CD-CSR..Conduct Social Impact Assessment and High Conservation Value Assessment in many oil palm plantation in Indonesia. Accredited by RSPO as Discipline Specialist for HCV assessment in oil palm plantation in 2010. Attended ISPO and ISCC Auditor trainings in 2013. Achieved Provisionally Licensed Assessor: ALS15037NM in 2015.
2	Team Member	Noor Rakhmat Danumiharja	A bachelor of Forestry. Attended the Basic Analysis of Environmental Impact training PPLH ITB (1984), took a class in Management of Natural Resources Conservation in Bogor, a part timer in the conservation of natural resources sector. Wild animal Conservation and Management. Worked in the Ministry of Forestry in Balai Taman Nasional Bukit Barisan Selatan in Lampung (1982-1988), in Balai Konservasi Sumber Daya Alam Jawa Barat (1999-2005), in Balai Taman Nasional Gunung Gede Pangrango (2005- 2007), in Direktorat Penyidikan dan Pengamanan Hutan (2007-2012). Worked in PT Caltex Pacific Indonesia Blok Minas and Jamrud as team to analyze the environmental impact assessment (1990).
3	Team Member	Herman	Graduated from Institut Pertanian Malang, a Bachelor of Forestry. Currently studying in IPB taking a master in the management of natural resources. An environmental and forestry consultant since 2000. Experienced in the development of the quality management system for agro-business and agro-forestry companies. Attended the ISO 9000:2000, HCV Assessment, and strategy to implement ISPO (CARE-LPPM IPB) trainings.

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The purpose of the social impact assessment is to determine the way in which the socio-economic status, culture and welfare of different stakeholders may be affected by the development of the HAL concession with both nucleus and plasma oil palm plantings.

Social Impact Assessment on the ground was carried out as follows:

1. **Participative;** issues identification and information searching were done in participative way. This participative approach enabled of the participants as the subjects in mapping the social issues they are facing, expressing their opinions and ideas, as well as being involved in designing the administration and changing of the issues.
2. **Multiparty;** issues identification and information searching were done in multiparty way by involving related parties directly or indirectly in giving or receiving the impacts,
3. **Rapid and Ex-ante;** issues identification and information searching were done in rapidly and based on the forecast of the changes tendencies that occur rather than the factual and accurate data – as the solution to the Social Impact Assessment approach and time limitation,
4. **Appreciative;** issues identification and information searching were guided positively, not only to find out the gap on the location but also to collect the data about expectations, potentials, and ideas in order to find out solutions and social issues that happened,
5. **Social Learning Cycles;** the social impact assessment is not a linear process which is instantly created but a cycled process which functions as the social learning processes to respond the changes in the environment,

The steps applied in the Social Impact Assessment were:

1. **Opening Meeting**
2. **Stakeholders Mapping and Field Scoping**
3. **Field Observation;** this method was used to understand directly the actual facts which will be indicator of the issues and social impact happened,
4. **In-depth Interview;** it was used to get a deeper understanding about the issues. It was done in-depth by interviewing the key socialite who will act as respondents. The criteria of choosing the respondents were based on the knowledge possessed or their direct experience over the impact or impacts,
5. **Dialogue;** this method was used to identify the nature of the relevant parties, identify the potential issues to impact, gathering information about expectations, ideas, and opinions to bring the solutions for the actual issues. The process was carried out through the meetings both in formal and in non-formal sequence with definite topics (Focus Group Discussion),

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6. **Literature Study**; this method was used for the purpose of gathering the understanding on the socio-context and environmental aspect of the location which was evaluated. It was carried out in the early phase-before going to the field and at the result analysis phase.
7. **Closing Meeting**

Analysis is conducted on the result from field visit to further understand the context, reciprocal relationship and eventually synthesis and conclusion is made. RSPO criteria related to social sustainability and changes in pentagon asset element are used in drafting the analysis. Moreover impact analysis is conducted with respect to guidelines for measurement of key impact. The condition and impact to pentagon asset element for all significant issues are defined.

3.3. High Conservation Value Assessment

PT Gagas Dinamiga Aksenta

Jl. Gandaria VIII/10, Kebayoran Baru, Jakarta 12130, Indonesia

Tel. +62 21 739 6518. e-mail: iwan@aksenta.com; aksenta@aksenta.com

Assessor Team

The HCV for PT HAL was conducted in May 2015 by Aksenta, who the team leader SIA from Aksenta have been licensed by the HCV Assessor Licensing Scheme (Provisional ALS15039IS)

Table 5 Assessment team expertise and HCV assessment focus

Name	ALS License	Institute	Role	Expertise
Iwan Setiawan iwan@aksenta.com	Provisional ALS15039IS	Aksenta	Team leader, biodiversity assessment (HCV1-3)	Wild animal research and survey, wild animal management, <i>ornithologist</i> , facilitator of <i>community biodiversity assessment</i> , participative mapping, conduct HCV assessment since 2012
Nandang Mulyana nandang@aksenta.com	Provisional ALS15037NM	Aksenta	Team member, Socio-cultural aspect (HCV5 & 6)	Possess knowledge in social and cultural aspects. Conduct HCV assessment since 2010

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Name	ALS License	Institute	Role	Expertise
Fersely G F Salmon gets@aksenta.com	N/A	Aksenta	Team member, Environmental aspect (HCV4)	<i>Hydrologist</i> , soil conservation, spatial analysis and remote sensing, water management system, conduct HCV assessment since 2010
T. Ade Fachlevi adhe@aksenta.com	N/A	Aksenta	Team member, Socio-cultural aspect (HCV5 dan HCV6)	Possess knowledge in social and cultural aspects. Conduct HCV assessment since 2010
Pramitama Bayu Saputro bayu@aksenta.com	N/A	Aksenta	Team member, GIS Specialist	Spatial analysis and remote sensing. Land use change analysis

The assessment covers of the total area 15,650 ha based on the Location Permit No 188.45/218/2012 (size 12,582 ha) and No. 188.45/273/2013 (size 3,068 ha). It is also on landscape level expanded into villages and other areas which considerably important to the proposed surrounding plantation area. HCV assessment was conducted in May 2015, the assessment consists of three main activities: desk-based study (conducted on 12-15 May 2015 in Jakarta), field work (conducted on 19-24 May 2015) and stakeholder consultation (conducted on 25 May 2015).

Table 6 Schedule of HCV Assessment in PT HAL

Activity	Time	Location
Pre-assessment & Preparation	12-15 May 2015	Jakarta
Opening meeting	19 May 2015	Muara Teweh
Participatory mapping	19 – 24 May 2015	PT Harisa Agro Lestari
Field Survey	19 – 24 May 2015	PT Harisa Agro Lestari
Stakeholder consultation	25 May 2015	Muara Teweh
Closing meeting & interim report	25 May 2015	Muara Teweh
Reporting	25 June 2015	Jakarta

The HCV assessment was conducted based on step-wise screening that harmonizes the required information to the scale reference (see guidance on HCVRN, 2013). The scale reference used for the assessment of HCV 1-3 covers the global, regional and national levels, before groundtruthing is conducted. Whilst, the assessment of HCV 4-6 focuses on landscape assessment or local level before groundtruthing is conducted. The process of HCV assessment begins with pre-assessment, data collection from the site and public consultation.

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The collected data and information will be analyzed further and the discovered HCV will be mapped out.

Pre-assessment

Pre-assessment is the initial process of HCV identification. Pre-assessment covers activities as follow: (i) collect the data and information on the development and the management of the existing estate and management planning, (ii) collect the secondary data and information from various sources (report, journal, book, statistic data, basic map), include information on biodiversity aspect and issue (global, regional, national, even local level), environment (especially on soil and water conservation) and socio-cultural, and (iii) analyze and validate the collected data and information and spatial analysis of basic map.

Data collection

Data collection in the field focuses on the area potentially classified as HCV area based on pre-assessment result. The collection of data and information is focused on the HCV element and attribute by using the methods as follow:

- 1) Participatory mapping
- 2) Groundtruthing

Groundtruthing is the field verification of the land cover from the interpretation of landsat satellite that is conducted during pre-assessment. At the same time when ground truthing is conducted, the collection of data and information also being conducted on site. The activity is being done by HCV assessor, either being done as a group per location or parallel for each section of assessment. This depends on the area potentially classified as HCV area.

- 3) Data collection on site

The collection of data on site is being done simultaneously with ground truthing. The purpose of this activity is to verify the existence of HCV element and attribute, in which it will be the basic to determine whether there is HCV in that particular area.

- 4) Interview with the community in the assessed area

Interview with the community or the company worker is being conducted to gain information about the existence of HCV element and attribute.

Public Consultation

Public consultation is a face-to-face meeting with key stakeholders in the assessed area, such as local community, village government, regency government, relevant institutions in the regency and companies operating around the assessed area. Public consultation conducted on

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25 May 2015 in Muara Teweh, which was attended by the representative of villagers, local government, NGOs (total attendees 25 persons).. The relevant stakeholder involved during the public consultation consists of:

1. Government (Natural Resource Conservation Department-BKSDA, The Plantation Office)
2. Local government representatives (at Kabupaten, Kecamatan and Village level): representative of Teweh Sub District.
3. Local community leaders : BPD, Ketua Adat
4. Local NGO : LSM NCW
5. Company employees and their representatives.

Tabulated below is the result from public consultation conducted on 25 May 2015 in Muara Teweh, which was attended by the representative of villagers, local government, NGOs (total attendees 25 persons).

Table 7 The Minutes of Public Consultation

No	Name	Institution	Comments
1	Supriadi	Key person in Pendreh village	Provide information on the name of Barioi and Balo Rivers. Provide explanation that Bomban River empties into Pendreh River. Sempayang River has not identified yet.
2	Subrata	The head of Beringin Raya village	Provide information that the headwaters of Bomban River is located in Beringin Raya village PT Bimal mulai has started its operation since 2003 The community has started catfish breeding since 2012 There is sacred grave named Datai Orai located between Km. 52 and Sei Rahayu I Village. During rainy season Lunuk River will be flooded, and during dry season the river will dry. Due to this situation, the river water always in a bad condition and the community only counts on the water from the wall. In the forest area, community still make use of Jelutung and Karayang Woods for customary events, hence the remaining forest need to be protected. Community exploits the forest to find traditional medicine.
3	Kurnadi Santoso	The head of Rimba Sari village	Community exploits Barioi River as a source of water for consumption The operational activity of PT HAL most likely will impact Barioi River, the management is expected to

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No	Name	Institution	Comments
			develop a strategy that will enable community to have access to clean water.
4	Iwan Setiawan	Aksenta	Aksenta will provide recommendations for PT HAL regarding environment management, implementation of BMP in buffer zone area and potentially eroded area; these are to minimize the impact from the company's activity.
5	Ating J	The Representative of Pendreh Village	Rapen River flows to the area of PT SAL, and borders Pandreh Village and Lanjas. Community reacts positively towards the development of PT HAL oil palm plantation. PT HAL to pays attention on social and cultural issues occur within the community.
6	Suharto Hartono	The head of Sei Rahayu I Village	PT HAL to pays attention on the activities around Suatu River, because the water condition in Suatu River is very bad.
7	Parto	The head of Sei Rahayu II Village	Clean water is the common issue in Sei Rahayu II Village Community shows positive reactions towards the presence of PT HAL, because according to them PT HAL would have positive impact to the community, either directly or indirectly.
8	Suryono	PJ Kades Datai Nirui	Datai Nirui community highly support the presence of PT HAL Datai Nirui community exploits Sambomban River, in which the river is dried during dry season. Community hopes that PT HAL provide direct or indirect access to Pendreh River.
9	Imam Wicaksana	PEH Seksi Wilayah III, BKSDA, Muara Teweh	Explanation on data retrieval method. Bekantan requires area as far as 100 – 300 m from the river side; company should consider the potential area for Bekantan Habitat. Asked whether the identified HCV area has a corridor to CA Pararawein?
10	Iwan Setiawan	Aksenta	The method used is Rapid Assessment. Details relevant to Bekantan population are not produced by this survey. Corridor between HCV 1 identified with Cagar Alam Pararawein has disconnected due to mining road passing from the west to the east and disconnected due to the flows of Pendreg River. To consider the importance of Bekantan habitat inside PT HAL concession.

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Data analysis and HCV mapping

The data collected on site will be compiled and tabulated based on the area of assessment. Initially, the data collected on site will be compiled and tabulated separately in accordance with each section assessed (biodiversity, environmental service, and socio-cultural). For each section, the HCV element and attribute found on site is listed. Furthermore, analysis will be conducted to justify the existence or non-existence of HCV elements and to determine the boundary of HCV area.

References

The sources of information collected and analyzed during pre-assessment (Table 8) and being used for HCV assessment in PT HAL are tabulated below:

Table 8 Data and Information collected and analyzed

HCV	Main Sources
1, 2, 3	<ul style="list-style-type: none"> • Location MAP of PT HAL (source: PT HAL) • Central Kalimantan Forest Map (SK Menhut 529/Menhut-II/2012, tanggal 25 September 2012) • Peta Rencana Tata Ruang Wilayah (RTRW) Kabupaten Barito Utara (Perda Kabupaten Barito Utara No. 5 Tahun 2001), • Peta Rencana Tata Ruang Wilayah Provinsi Kalimantan Tengah (Perda, No. 28 Tahun 2003) • Peta Indikatif Penundaan Pemberian Izin Baru (PIIB) Pemanfaatan Hutan, Penggunaan Kawasan hutan dan Perubahan Peruntukan Kawasan Hutan dan Areal Penggunaan Lain (Kepmenhut No. SK.3706/Menhut-VII/IPSDH/2014 tanggal 13 Mei 2014) • Peatland map, the area and the carbon content in Kalimantan. (Wetland International-Indonesia Program. 2004) • Land covers from landsat satellite imagery 8 (USGS, April 2015). • The Ecology of Kalimantan. Periplus Edition, HK. (MacKinnon, et al., 2006). • Field Guid to The Mammals of Borneo (Payne dkk. 2000) • Birds in Sumatera, Jawa, Bali and Kalimantan (MacKinnon, <i>et al.</i> 2000) • Indonesian and Papua New Guinea Turtoise and Crocodile (Iskandar, 2000) • IUCN Red List of Threatened Species. www.iucnredlist.org • Endemic Bird Area Factsheet: Borneo (BirdLife International, 2012). • Appendices I, II and III, valid from 14 April 2014 (CITES, 2014). • Important Bird Areas in Asia: Key Sites for Conservation (Birdlife International, 2004) • Area Ramsar di Indonesia, sumber: http://www.ramsar.org • Kajian Ekosistem Pulau Kalimantan (Prihatna/WWF Indonesia, 2009)
4	<ul style="list-style-type: none"> • Location MAP of PT HAL(source: PT HAL) • Land covers from landsat satellite imagery 8 (USGS, April 2015). • Data digital Shuttle Radar Topography Mission Elevation Data (USGS, 2004) • Peta Sistem Lahan - <i>Land System</i> (RePPPProt, 1991).

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HCV	Main Sources
	<ul style="list-style-type: none">• Peta Ketinggian Tempal (hasil pengolahan berdasarkan data SRTM).• Peta Kelas Lereng (hasil pengolahan berdasarkan data DEM SRTM).• Peta Penutupan Lahan (hasil pengolahan berdasarkan citra Landsat 8, 2014).
5, 6	<ul style="list-style-type: none">• Location MAP of PT HAL(source: PT HAL)• Statistik Daerah Kabupaten Barito Utara 2013 (BPS Kabupaten Barito Utara, 2014)• Statistik Daerah Kecamatan Teweh Tengah 2013 (BPS Kabupaten Barito Utara, 2014)• Peta sebaran desa di Kecamatan Teweh Tengah, Kabupaten Barito Utara (Sumber: RBI)• Profil Daerah Kabupaten Barito Utara (Pemerintah Kabupaten Barito Utara, 2012)• Perekonomian Kabupaten Barito Utara (Laporan Akuntabilitas Kinerja Instansi Pemerintah Kabupaten barito Utara, 2014)• Tutupan lahan dari citra satelit (Landsat 8, April 2015)• Peta Sebaran Suku di Kalimantan (Sumber http://www.ethnologue.com)

Land Use Change (LUC) Methodology

Beside the HCV Assessment, PT HAL also conducted landuse change analysis (LUC) to determine changes to vegetation since 2005. Land use change analysis is done using satellite imagery from 2005, 2007, 2010 and 2015. In addition to the spatial data in the form of satellite imagery, Land use change analysis have also used some of the data supporting, that is, (i) land clearing data of PT HAL, and (ii) legality data of operating areas.

The assessment was conducted by combining these methods (i) remote sensing and spatial analysis, (ii) ground truthing (iii) in-depth interview and (iv) document review. The process and the stage of assessment are as follows:

- a. Pre-processing Image
- b. Image classification: supervised classification/visual interpretation
- c. Field verification :
 - sampling points
 - Ground truthing
 - In-depth interview
 - Document review
- d. Contingency and accuracy matrix

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4. Summary of Assessment Findings

4.1. Environmental Impact Assessment (EIA)

Based on ANDAL document, a number of protected animals are identified such as *Haliactus indictus*, *Sus barbatus*, *Histrix brachyura*, *Cervus timorensis*, etc. An information mentioned *Nasalis larvatus* used to be identified.

The results of this holistic assessment of the magnitude of the potential impact of each stage of the development process on each component of the environment show that the development of an oil palm plantation and palm oil mill by PT. HAL has the potential to have a significant impact, both positive and negative.

Important positive impacts predicted:

1. Socialization & public consultation
2. Development of facilities and infrastructure,
3. Soil and water conservation
4. Nursery
5. Employment
6. Development of the mill
7. Harvesting and transport of oil palm Fresh Fruit Bunches FFB

Meanwhile, the negative impacts predicted are:

1. Geophysical & chemical: reduction in air quality, noise pollution, reduction in the quality of surface water, increase in soil erosion, increase in sedimentation, increased risk of fire and the production of waste liquids.
2. Biological: disturbance of flora and fauna, disturbance of aquatic biota
3. Social: social conflicts, negative perception of the company by the community and changes in community values and cultural norms
4. Public health: negative impacts on the health of the surrounding communities

However, several of the potential negative impacts can be mitigated if the proposed environmental management actions are taken. It is therefore hoped that the negative impacts will be reduced, mitigated and even prevented. In relation to the potential positive impacts associated with the proposed development, the aim should be to maximize these in order to improve the welfare of the whole society without having a negative impact on the environment. Based on this, PT HAL plans to develop an oil palm plantation and palm oil

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mill are eligible for development from an environmental perspective as long as the appropriate measures are taken to monitor and manage their environmental impact.

4.2. Social Impact Assessment (SIA) Findings

The assessment area includes six villages namely Desa Sei Rahayu I, Sei Rahayu II, Rimba Sari, Beringin Raya, Datai Nirui dan Desa Pendreh. All those villages are located in the Teweh Tengah sub-district and Barito Utara Regency. The 6 villages have the potential to be affected by the operation of PT HAL.

The potential positive and negative impacts on the socio-economic status, culture and welfare of the various stakeholders likely to be affected by the development of the PT HAL concession with oil palm are summarized below. Measures to mitigate the adverse impacts and maximize the positive impacts have also been identified.

Table 9. The potential of Social Impact according to the operational plan of PT Harisa Agro Lestari, Barito Utara Regency, Central Kalimantan Province.

No.	Activities	Potential Impact to Pentagon Assets				
		Human capital	Natural capital	Social capital	Financial capital	Physical capital
1.	Socialization	o	o	o	o	o
2.	Land acquisition	+	- P	o	+	o
3.	Land clearing	+	-P	o	o	o
4.	Estate development	o	o	o	+	o
5.	Estate management	+	o	o	o	o
6.	Transport of FFB	o	o	o	o	o
7.	FFB receive	+	o	o	o	o
8.	Processing	o	o	o	o	o
9.	Transport of CPO	o	o	o	o	o
10.	Recruitments	+P	o	-	+P	o
11.	Communications, relations, social, CSR Program	+	o	o	o	+
12.	Scheme smallholders	+P	+P	o	+P	o

Source : Aksenta.

Disclaimer : (o) no impact

(-) negative impact

(+) positive impact

(-P) important negative impact

(+P) important positive impact

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The positive impacts for the surrounding communities include the new source of income and/or additional income (financial assets) for community, especially those who have been working for PT HAL. On the other hand, the area of community land (natural assets) might shrink and the community access to clean water (natural assets) might be disturbed.

The financial and natural capitals are two capitals that will be affected the most, either positively or negatively. Based on the assessment, the existence of PT HAL will have positive impact on financial capital; however its existence is also predicted to have negative impact on the natural capital. The human, social and physical capitals will not be affected due to the existence of PT HAL. This is mainly due to the availability of basic infrastructure for the community prior to the existence of the company. The social condition in the concession area reported as relatively conducive, no social issues appear due to the presence of the company.

Interaction between company and community is still a few, hence in the meantime there is no social risk faced by the company. One issue that may hold up palm oil plantation development is not the social aspect but a technical issue where the value of land release is high. The company's operation has to be well managed to prevent potential disappointment from the community that may arise due to over expectation from the benefit of company's presence in the local villages.

There are key stakeholders from the community. Key stakeholders are the significantly influential parties and parties significantly influenced by PT HAL's presence and operational plan. The key stakeholders are:

1. Community / farmer / owner / land cultivator inside the Location Permit area of PT HAL
2. Strongly influential parties to the community who support / oppose the presence of PT HAL
3. Village government (not limited to Village Head)
4. Land clearing contractor

Apart from external factor, there is also key stakeholders from company side namely the personals assigned to do the Public Relations function in socializing and land acquisition.

To manage social impact, risk and issues PT HAL has to develop strategic and systematic management. Potential social risk and issue that may arise in the future cannot be responded in a reactive, sporadic and short term way. A fundamental, systematic and long term in term

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of sustainability (either sustainable for company or community) system have to be developed. Therefore main recommendation from the assessment result is for company to immediately develop a social management plan and integrate the plan in plantation management.

However, several measures need to be taken immediately especially to accelerate palm oil plantation development and gain the local community's trust. The outlines of the recommendation are:

1. Develop appealing and advantaging compensation scheme and partnership scheme to local community
2. Develop a comprehensive socialization material
3. Form Public Relation task force to built team work and competence personnel.
4. Develop communication strategy and effective approach based on stakeholder identification
5. Implement FPIC principal in communicating and partnering with community.

4.3. High Conservation Value (HCV) Assessment

The land use change analysis was used to determine changes to the land covers since 2005. RSPO proxies were used to indicate changes to the HCV status. The land use change analysis based on landsat satellite imagery confirmed that there are no primary forests in the PT HAL concession. The landsat satellite imagery of November 2005 also showed that shrubland is the dominant land cover in the concession.

Based on the LUC analysis by Aksenta, in the satellite imagery in November 2005, there are 7 (seven) types of land cover in PT HAL : (i) secondary forest (ii) old shrub (iii) mix garden (iv) young shrub (v) monoculture land (vi) shrubland and (vii) open land. These land covers has gone through the dynamic changes from 1 November 2005 to 25 May 2015. During the HCV assessment, shrubland is seen as the dominant land cover in PT HAL concession confirming the vast changes that had taken place in the last ten years. The illustration on the of land cover changes from November 2005 to May 2015 in PT HAL concession is presented in figure 7. The figure shows that secondary forest has degraded from with the progression of time from 2005–due to the activities of the local community involving in logging and land clearing by the communities. The PT HAL concession is located in the middle of the transmigration projects and it is expected of these human activities within the concession.

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From the desktop study with relevant document (table 8) and ground survey in the field (16-25 May 2015), There are 3 (three) type of HCV in the Location Permit of PT HAL, namely HCV 1 (have biodiversity value which is important in global, regional or national context), HCV 3 (rare or threatened ecosystem) and HCV 4 (fundamental environmental service). Meanwhile HCV 2 (wide landscape which is important in global, regional or national context as habitat for wildlife or vegetation species), HCV 5 (natural resources for local community to meet basic needs) and HCV 6 (site or containing natural resources significant for cultural identity and local community's tradition) are not found.

Based on the mapping and observation in the field by assessors, all indicative HCV area inside Location Permit area of PT HAL is located at 14 (fourteen) sites with total area of 2,157.1 Ha (13.8% of Location Permit area PT HAL). The physical condition of the HCV is low land secondary forest, river and its riparian. HCV map and indicative HCV area inside Location Permit area of PT HAL is in **Table 10**. Indicative HCV area map (HCV 1, 3, 4) with its location and total area inside Location Permit area of PT HAL is in **Figure 8**.

The key elements of HCV 1 in PT HAL concession consists of 3 sub-elements, namely HCV 1.2 (the existence of endangered wild animal and plant) ; HCV 1.3 (the existence of endemic wild animal and plant) and HCV 1.4 (the last resort for wild animal or refugia for animal species). HCV 1 is a lowland secondary forest ecosystem. The indicative area of HCV 1 is spread around 3 locations with the area of 1,554.7 ha (9.9% from the total of location permit of PT HAL).

The key elements of HCV 3 in PT HAL concession is the existence of an area with rare or threatened ecosystem, such as lowland secondary forest. HCV 1 is a lowland secondary forest ecosystem. The indicative area of HCV 3 is spread around 2 location with the area of 1,123 ha (7.2% from the total location permit of PT HAL).

The key elements of HCV 4 in PT HAL consist of 2 sub-elements, namely HCV 4.1 and 4.2. HCV 4 is river and buffer zone area. The indicative area of HCV 4 in PT HAL concession is spread around 14 locations with the area of 948.8 ha (6.1 % from the total location permit of PT HAL).

Table 10 Description of HCV area in PT HAL concession

ID	HCV	Location	HCV Element	Area (ha)
1	4.1; 4.2	Suatu River with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	24.6
2	4.1; 4.2	Mangkaot River with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	77.2
3	4.1; 4.2	Barioi River with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	332.4
	1.2; 1.3; 1.4; 4.1; 4.2	Riparian forest in Barioi river	<ul style="list-style-type: none"> ▪ Endangered species ▪ Endemic species and Limited range species ▪ Refugium endangered species 	32.8
03a	4.1; 4.2	Mensoring river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	5.2
03b	1.2; 1.3; 1.4	Riparian forest in Barioi river	<ul style="list-style-type: none"> ▪ Endangered species ▪ Endemic species and Limited range species ▪ Refugium endangered species 	85.3
4	4.1; 4.2	Ulin river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	24.4
5	4.1; 4.2	Balo river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	49.4
6	4.1; 4.2	Ese river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	72.7
7	4.1; 4.2	Kareho river with buffer zone of 20 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	11.9
8	4.1; 4.2	Lunuk river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	30.2
9	4.1; 4.2	Bomban river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	84.3
10	1.2; 1.3; 1.4; 3	Secondary forest	<ul style="list-style-type: none"> ▪ Endangered species ▪ Endemic species and Limited range species ▪ Refugium endangered species ▪ Secondary forest ecosystem and lowland 	1,140.6
11	4.1; 4.2	Matei river with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	46.1
12	4.1; 4.2	Rapen river with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Source of water ▪ Flood control ▪ Erosion control 	57.1
13	4.1; 4.2	Sempayang river with buffer zone of 30 m	<ul style="list-style-type: none"> ▪ Flood control ▪ Erosion control 	31.3
14	4.1; 4.2	Pandreh river with buffer zone of 50 m	<ul style="list-style-type: none"> ▪ Flood control ▪ Erosion control 	51.5
Total HCV area (ha)				2,157.1

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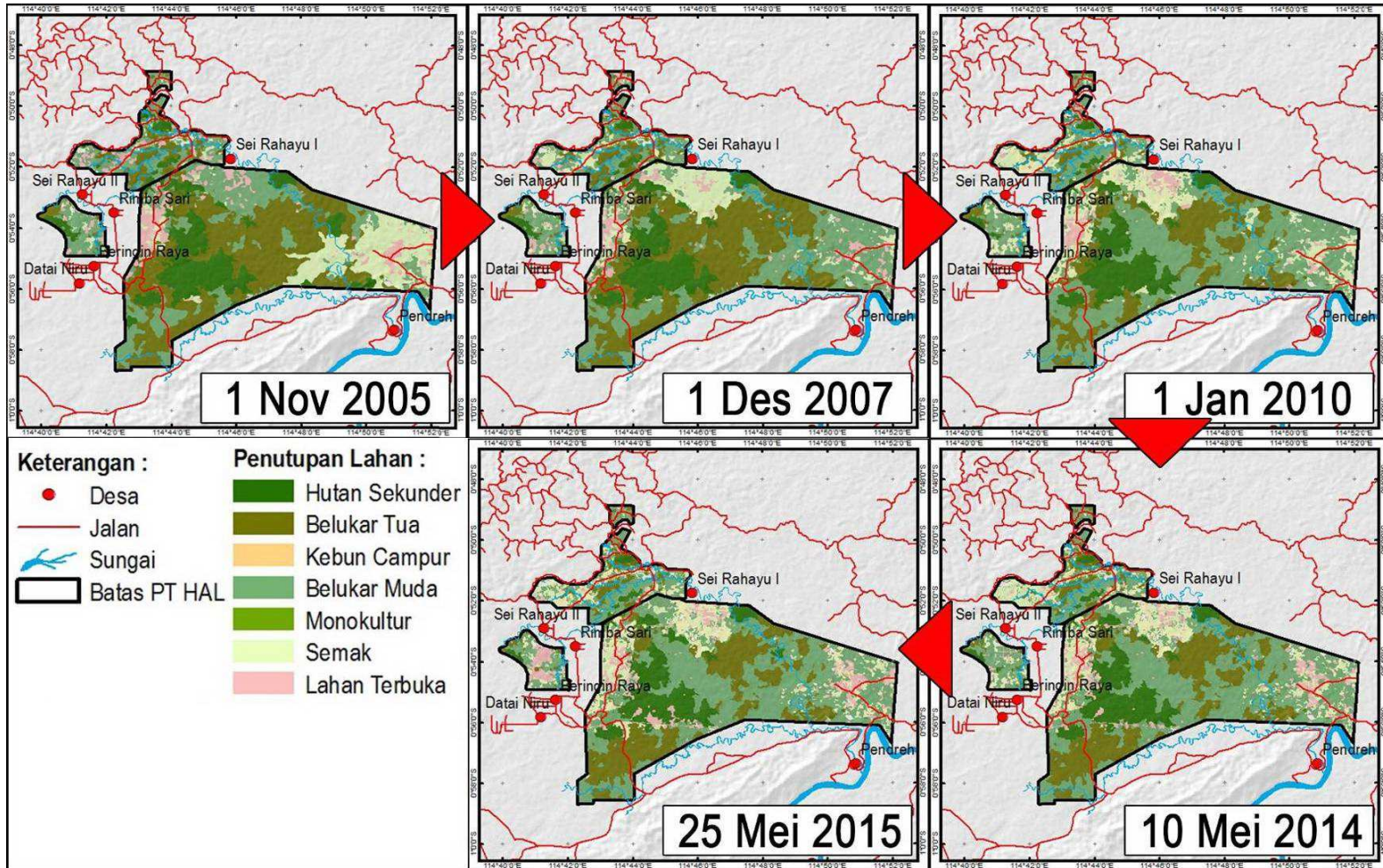


Figure 7. The illustration on the land cover changes in PT HAL concession

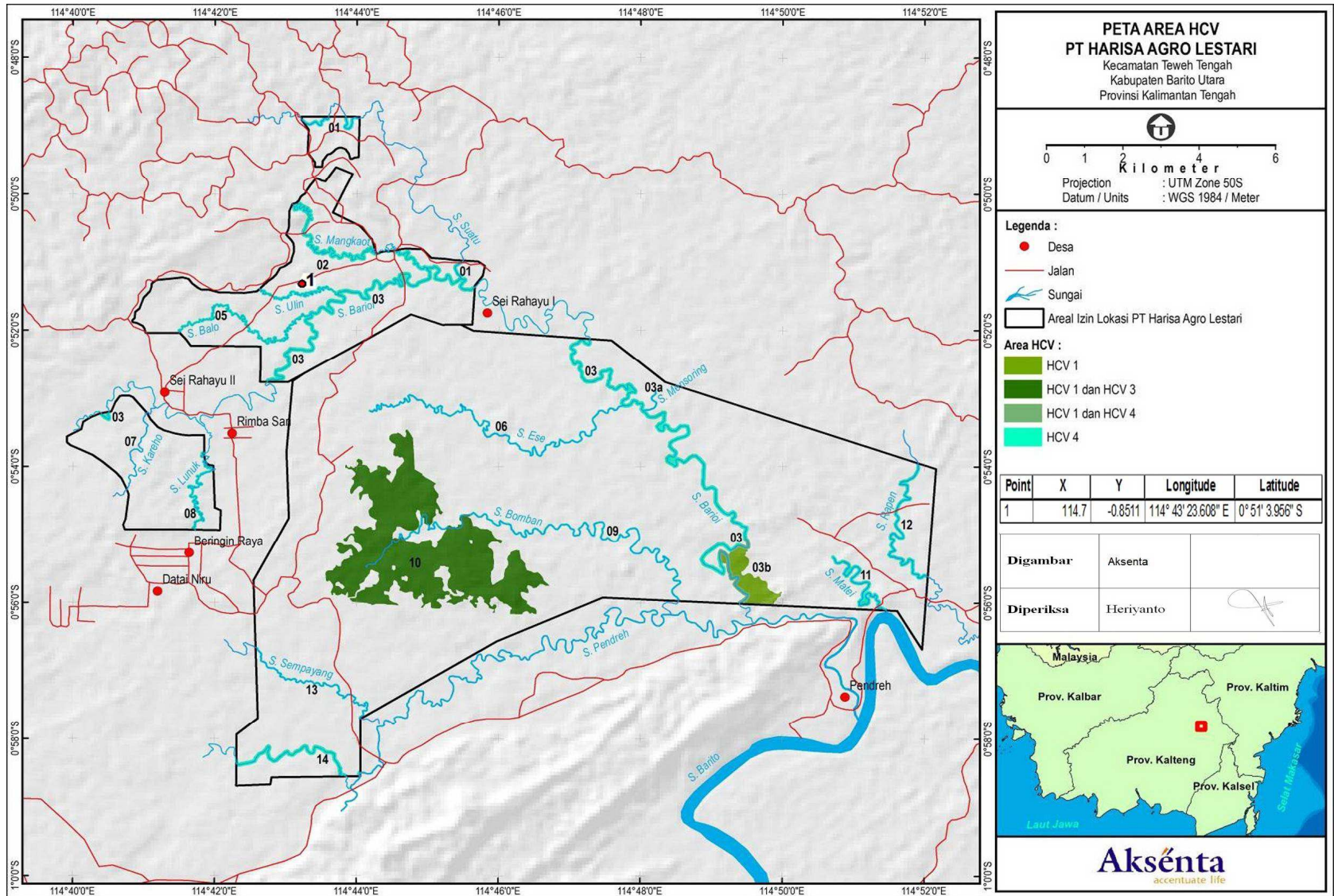


Figure 8 HCV Map in Location Area of PT HAL

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Main threat to the HCV elements and area as follow:

- 1) Commercial logging by the community such as *Ulin, Balau, Bangkirai, Kruing* and *Meranti*,
- 2) Land clearing for community farming around the secondary forest
- 3) Illegal hunting of wild animal by local community that threatening the existence of the elements of HCV 1, such as *Kalaweit, Bear, Trenggiling, Kijang* and *Kancil*.
- 4) Land clearing for community farming up to the riverside area. This will clear up the buffer zone area that has a function to control the erosion and to filter land erosion.

The value of HCV must be protected from the threats that could potentially minimize or dismiss such value. The main threat includes the change of land covers by the community as well as the company. Socialization and control are necessary to be implemented to company workers and the surrounding community.

Recommendations:

1. Mapping and delineation of HCV area in the location permit of PT HAL. This must be documented in the minutes of meeting of the delineation of HCV Area.
2. To declare HCV area that has been delineated and to map such area in the official HCV map of PT HAL.
3. To install the boundary of HCV area permanently.
4. Develop a management plan and monitoring HCV.
5. To inform the existence of HCV area in the concession indicated boundary of HCV area, the function and value of HCV area to the company workers and community.
6. Rehabilitation of buffer zone area and degraded river with vegetative approach.
7. No land conversion in the area that consists of *Pusik (pohon madu)* or old grave.

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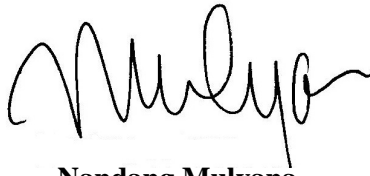
5. Internal Responsibility

Formal signing off by assessors and company

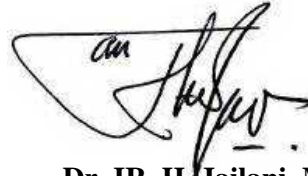
These document its summary of SEIA (Social Environmental Impact Assessment) and High Conservation Value (HCV) of PT Harisa Agro Lestari.



Iwan Setiawan
Team Leader HCV
(Provisional ALS15039IS)
Dated on : 2 July 2015



Nandang Mulyana
Team Leader SIA
Dated on : 2 July 2015



Dr. IR. H. Jailani, MP
Team Leader SEIA
Dated on : 2 July 2015

Statement of acceptance of responsibility for assessment

Assessment result document on SIA (Social Impact Assessment) Assessment and High Conservation Value (HCV) in PT Harisa Agro Lestari by Aksenta, will be applied as one of the guidelines in managing palm oil plantation in PT Harisa Agro Lestari.



Jonson
Coordinator of Estate operational
Dated on : 2 July 2015



Dita Galina
Coordinator of Sustainability
Dated on : 2 July 2015

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Abbreviation

ALS	: Assessor Licensing Scheme
AMDAL	: Analisis Mengenai Dampak Lingkungan
APL	: Areal Penggunaan Lain
BKSDA	: Balai Konservasi Sumber Daya Alam
BPN	: Badan Pertanahan Nasional
CD/CSR	: Community Development/Corporate Social Responsibility
FPIC	: Free Prior and Informed Consent
GHG	: Green House Gas
HAL	: Harisa Agro Lestari
HCV	: High Conservation Value
HGU	: Hak Guna Usaha
HP	: Hutan Produksi
HPK	: Hutan Produksi Konversi
IPK	: Izin Pemanfaatan Kayu
IUP	: Izin Usaha Perkebunan
IUPHHK	: Izin Usaha Pemanfaatan Hasil Hutan Kayu
LSM	: Lembaga Swadaya Masyarakat
LUCA	: Land Use Change Analysis
NCW	: National Corruption Watch
NGO	: Non Government Organization
PIC	: Person in Charge
RSPO	: Roundtable on Sustainable Palm Oil
SEIA	: Social Environment Impact Assessment
SIA	: Social Impact Assessment
SIUP	: Surat Izin Usaha Perdagangan
SOP	: Standard Operational Procedures
TDP	: Tanda Daftar Perusahaan