

Assessment Report
Industrial Forest Plantation
High Conservation Value
Public Summary

PT. Tripupa Jaya

21.995 Ha

Banyuasin Regency, South Sumatra Province

September – November 2013

*This Public Summary is prepared within the framework of APP's Forest Conservation Policy
and the information contained is the result of a full HCV assessment*

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1 INTRODUCTION

1.1 Time frame of HCV Assessment

The implementation is in September – November 2013

1.2 Reference

No	Reference
1	National HCV Toolkit
2	<i>The High Conservation Value Forest Toolkit, Edition 1, December 2003</i>

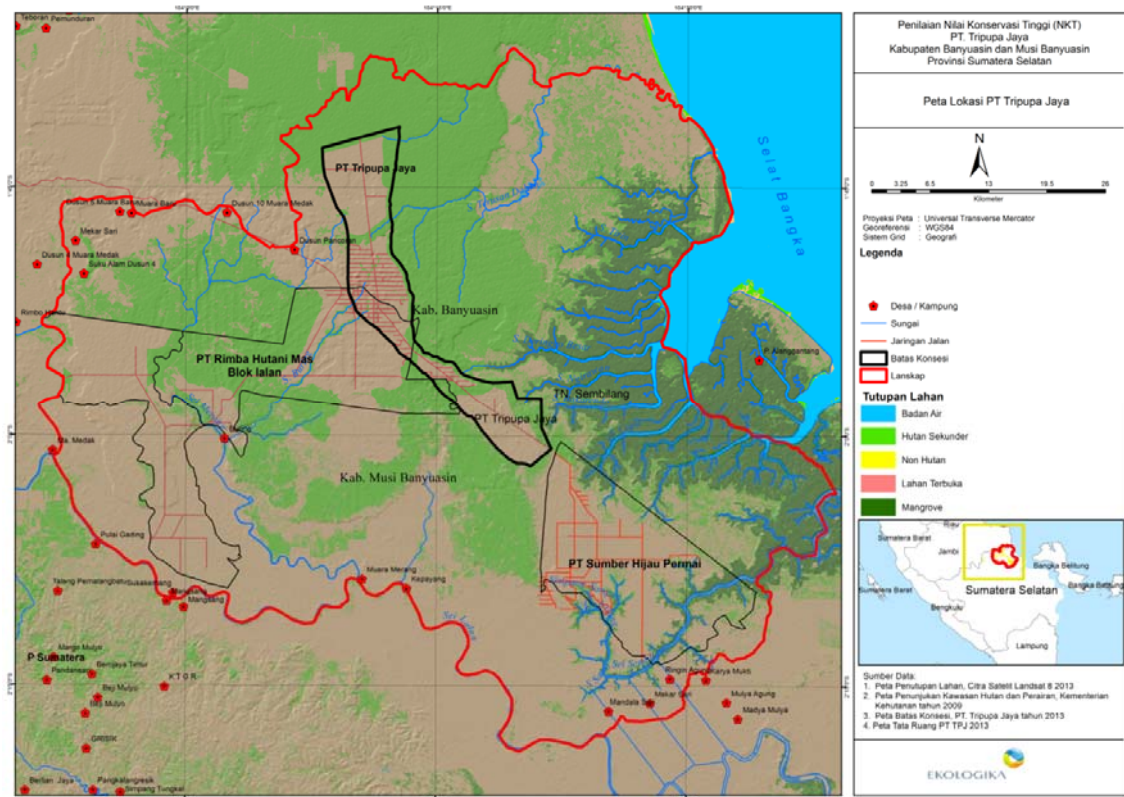
1.3 Project Development Status

PT. Tripupa Jaya is one of APP supplier which has been operating since 2009, according to the FCP there will be no natural forest wood cut and clearance by PT. Tripupa Jaya after January 31st, 2013.

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1.4 Area Description

The assessment was conducted on the Industrial Forest Plantation owned by PT. Tripupa Jaya which is located in Banyuasin II Sub-district, Banyuasin Regency, South Sumatra Province. The Ministerial Decree of the Ministry of Forestry of the Republic of Indonesia SK No. 583/Menhut/II/2009 dated October 2nd, 2009 licensed an area of ± 21.995 Ha for PT. Tripupa Jaya concession.



The Map of HCV Assessment Location of PT. Tripupa Jaya

2 METHODS

2.1 Primary Data Collection

With the limited social data, socio-economic studies were also conducted on selected village to represent the concession. Personal information and HCV related or participatory research experiences with communities of each team members are recorded in Appendix 2.

The primary data used are available in separate reports on:

- The vegetation within TPJ concession
- Mammals within TPJ concession
- Birds within TPJ concession
- Reptiles and Amphibians within TPJ concession
- Socio-economic and cultural condition within and around TPJ concession

Management and monitoring recommendations suggested in this report served as the basis of management and monitoring recommendations used in this assessment.

Field topography verification. To assess the accuracy of topographic conditions described in secondary Digital Elevation Model (DEM), general field observations are conducted throughout whole TPJ concessions. TPJ concessions are generally undulating to sloping with dominantly lowland forest ecosystems.

Vegetation Survey. HCV assessment of vegetation in TPJ concession was conducted by using descriptive method; with one km line-transect in areas representing each ecosystem types.

Amphibians and Reptiles. Herpetofauna diversity research was conducted by using active techniques, including Visual Encounter Survey (VES) modified with transect, Surveys at breeding sites and Road Cruising (Hayer et al., 1994; Kusriani, 2009). Morning observations were carried out from 06.00 to 09.00, while afternoon and evening observations were from 15.30 to 21.00. One km line-transects were set up in several habitat types.

Birds. Abundance survey of bird types was conducted by using cruising methods with Sorensen-Dice index to analyse the data, to identify the similarity of birds' flocks in each habitat type. Elaboration of the method, the survey area and the results are given in the separated avifauna report.

Mammals. This research applied line-transect and cruising technique. Mammals are observed by slowly cruising along 1 km of transect line in each forest types and recording all of the spotted mammals species. The observations were carried out in the morning (05:30 – 09:00), afternoon (15:00 – 18:00) and evening (19:00 – 22:00).

Social and cultural. The social and cultural scope of High Conservation Value (HCV) assessments falls to the criteria HCV 5 (basic needs of local communities) and 6 (cultural identity and local community's bond with the area). Landscape methods were employed in the assessment, thus it was carried in villages within and around the concession area.

Sample determination is based on the following criteria:

1. The village is within the concession area.

2. The village is located around the area in a very close proximity to the concession and potentially, directly or indirectly, affected by the company's operations.
3. The village is located around the concession area based on watershed (DAS).

Selected villages around the area were examined the questions of whether natural resources from the concession and the forest areas are crucial to the fulfillment of basic needs of local communities, irreplaceable, do the community make use of natural resources in the concession area sustainably? And does the loss/damage of some parts or all of the natural resources due to company's operations affect the community livelihood?

Data Mining Method uses data which were collected from Focus Group Discussions (FGD) and semi-structured Interviews. To ensure participation in the process of data mining, representatives and community groups (village authority, religious figures, youth, and marginal group) were involved in the FGD. The purpose is collecting information on resources of each areas (settlement, hamlet, village) garnered from local community's knowledge, which is resourceful for HCV 4 assessment and socio-economic HCV 5, and HCV 6.

Location and delineation of High Conservation Value (HCV) 5 and HCV 6 are identified by observation, while GPS coordinates are input to set High Conservation Value Area (HCVA). The locations are then accurately presented in spatial maps.

2.2 Schedule

No	Activity	Date
1	Pre-assessment	14-17 May 2013
2	Reporting	April – August 2013
3	Multistakeholders consultation	16 September 2013
4	Assessment	September – November 2013
5	Reporting	November – February 2014
6	Public Consultation	27-28 March 2014
7	Peer Review	June 2014
8	Final Report	October 2014

3. ASSESSMENT TEAM

ADVISOR

Neville Kemp MSc (Technical Advisor of Ecology)

- Profession : Director of PT Ekologika Consultants, Natural Resource Management Consultant
- Expertise : Biodiversity survey, Community Development, Forest Ecology and Management. He is an ecologist, forestry expert and ornithologist
- Field Experience : Worked in conservation areas and community development at Indonesia and Vietnam for more than 17 years and known as an expert in the field of Biodiversity Survey, especially identifying avifauna species in Indonesia. Currently he is the Director of PT EKologika Consultants – a consulting company that provides Natural Resource Management Service and survey services in High Conservation Value assessment for companies in timber, palm oil plantation and Industrial Forest sector, including certified companies with FCS standard. He is also a member of High Conservation Value Network in Indonesia.

Ninil Riyati Miftahul Jannah (Technical Advisor of Socio-economic and Cultural)

- Profession : Community Development Specialist
- Expertise : More than 10 years of working experience in various fields, including community development, conservation, environmental education and informal education for adults. Recently, her expertise is shifted to disaster risk reduction field and organizing communities to preparedness against disaster using participatory approach.
- Field Experience : Since earthquake disaster hit Yogya in May 27th 2006, Ninil had helped many communities to rebuild and strengthen their source of income through participatory approach. Founded “Perkumpulan Lingkar” in 2008 and continuously working with communities to implement programs related to natural resources and disaster risk reduction.

ECOLOGIST TEAM

Diah Wening Sariratri (Team Leader and Landscape Ecologist)

- Profession : HCV Team leader assistant

- Expertise : Environmental Expert, involved in several activities related to Environment and Geography since 2006; taught Climate and Meteorology, Indonesian Regional Climatology as a lecturer in Universitas Indonesia.
- Field Experience : Team leader in HCV APP project in Muba. Involved in Coral Reefs research projects in Banten, sea wildlife observation and depth measurement of Natuna Block, Monitoring Air Pollution Distribution in east coast of Lampung.

Didik Raharyono (Mammals; Tiger Specialist)

Profession : Consultant

Expertise : As a Tiger Specialist, he had 9 years tiger related programs experiences such as: Innovating Conservation, Jogjakarta's Wildlife Rescue Center, Large Carnivores Monitoring as Forest Ecosystem Controller (PEH) of Volcanic National Parks in Jember and Jogjakarta. He was a Camera trap Operator for FFI Indonesia program in Nusakambangan. Didik was also involved in a number of researches (11 researches between 2009 – 2012) in the field of large carnivore, leopard, Javan tiger, and mammals.

Mas Untung (Avifauna)

Profession : Avifauna Researcher

Expertise : Since college, he was Actively involved in several organizations that enabled him to develop expertise in avifauna species monitoring, birds census, and raptor migration.

Field Experience : Joined in several teams of HCV assessment, monitoring or Environmental Impact Assessment (AMDAL) in several locations such as Gunung Merapi National Park, Sempu Island Nature Reserve, Central Kalimantan, and South Sumatera.

Hastin Ambar Asti (Herpetofauna/Reptile and Amphibian)

Profession : Consultant

Expertise : A Herpetofauna researcher, she was involved in numerous researches related to herpetofauna diversities in Indonesia with some institutions, including Universitas Gadjah Mada since 2007 to 2013.

Field Experience : Her researches were carried out in Yogyakarta, Sawangan, Pekalongan, Magelang, Nusa Kambangan Island and other location as well.

Arif Hamidi (Plant Ecology Team)

Profession : Flora Consultant

Expertise : His specific expertise is in Vegetation Analysis, Biodiversity, Ethnobotany, Statistic, and Floristic Integrity, 8 years of experiences in vegetation research and biodiversity measurement, HCVF, Ecosystem Services and was a botanist in HCVF project with PT Swakarsa Palm Oil, West Kalimantan.

Bryan Cato Cook (Landscape Ecology Team)

Profession : Landscape Assesment Consultant

Expertise : Avifauna and Biology Expert, involved in several research projects of avifauna, landscape ecology, and conservation biology for more than ten years in several states of America such as Nevada, Arizona, Montana, and Hawaii.

SOCIAL TEAM

Okki Ahmad Shahibussalam (Socioeconomy and Culture)

Profession : Community Development Specialist

Expertise : A community Development Specialist with more than 18 years of experience, involved in various activities such as facilitating community groups, he was also involved in Livelihood Sector Recovery Program at Gunung Kidul Jogjakarta, and other activities such as facilitator in Conservation Education Program in Klub Indonesia Hijau (KIH) Surabaya and Indonesia.

Field Experience : Conducting socio-economy-cultural surveys, and capable of operating participatory research tools. His birdwatching hobbies had given him knowledge about forest and villages around it and sharpened his communicating skills and comprehending communities' agenda. He is recently an active executive board of Klub Indonesia Hijau in Surabaya.

Athanasia Dian Santi (Socio-economy and Culture)

Profession : Consultant

Expertise : More than 10 years of experience in community development and mobilization service, including Mapping and Capacity Building for OXFAM partners in Sulawesi. She served as Director in IndriyaNati for four years, a NGO works on Female Street Children Accompaniment in Yogyakarta.

Field Experience : She was working in Dukun and Salam sub-districts, Magelang, for Merapi Early Recovery Program with Save the Children

Sutrisno (Socio-economy and Culture)

Profession : Director of Kappala Groups

Expertise : Community development

Field Experience : He has over 7 years of experience in communities empowerment and assistance especially with regard to disaster countermeasures in Central Java and West Java. He is also a Director of Kappala Groups since 2009 and has involved in various recovery activities for communities impacted by disaster.

4. RESULTS

4.1. HCV Result

HCV	Definition	Present	Potential	Absent
1	Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.	HCV 1.1, 1.2, 1.3		1.4
2	Large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.	2.1, 2.2, 2.3		
3	Rare, threatened, or endangered ecosystems, habitats or refugia.	3		
4	Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.	4.1, 4.3		4.2
5	Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or indigenous peoples.	5		
6	Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.	6		

HCV	Sub HCV	Definition	Parameter
1.	1.1	Areas/sites that have or give Biodiversity Supporting Function for Protected and/or Conservation Areas.	Company protected area, riverbank
	1.2	Endangered species.	<i>Dipterocarpus elongatus</i> , <i>Hopea mengerawan</i> , <i>Shorea platycarpa</i> , <i>Shorea cf balangeran</i> Sumatran Tigers
	1.3	Areas that contain habitat for viable population of endangered restricted range or protected species	19 vegetation species, 12 mammals species, 30 avian species, and 4 species of amphibian and reptilian taxa
2	2.1	Large natural landscapes with capacity to maintain natural ecological processes and dynamics	Natural forest with >20.000ha core area and 3km buffer zone
	2.2	Areas that contain two or more contiguous ecosystems	Ecotone of bordering riparian ecosystem with peat forest, lowland forest with peat forest
	2.3	Areas that contain representative populations of most naturally occurring	Animal diversity, particularly mammals is found in every peat forest, lowland forest

		species	and shrubs, the animals are Sumatran Tiger, agile gibbon, 3 birds of Bucerotidae, 2 birds of Trogonidae
3		Areas with endangered or nearly extinct ecosystem.	Peat swamp ecosystem
4	4.1	Important areas or ecosystem that function as water supply and flood control for community that resides in downstream areas.	Riparian peat swamp forest
	4.3	Areas that function as natural barriers to prevent forest or field fire.	100m forest buffer, industrial forest plantation (HTI)
5		Areas with Important Functions to fulfill Local community's basic needs.	Source of protein (fish), construction material (wood), furniture, utensil, working tool (ship) (wood, rattan), source of clean water for sanitation (river water), source of income (fish, honey)
6		Areas with Important Functions as Traditional Cultural Identity of Local Communities.	Rumah Panjang (traditional house), Sacred old Mosque, Pancoran Site

4.1. Public Consultation Result

Implementation:

Date	27 -28 March 2014
Venue	Hotel Sandjaya, Palembang

Attendance List

1. Provincial level of Local Government Agencies (SKPD)

No	Name	Institution	Telp
1	Ir. Pandji T	Dinas Kehutanan Propinsi Sumatera Selatan	
2	Soni	Dinas Kehutanan Propinsi Sumatera Selatan	
3	Harri C	Dinas Perkebunan Propinsi Sumatera Selatan	0811710443
4	Choirul Huda	Dinas Perikanan dan Kelautan Propinsi Sumatera Selatan	082379704390
5	M. Ari Sidarta	Dinas Perikanan dan Kelautan Propinsi Sumatera Selatan	085279971983
6	Joko Purnomo	BAPPEDA Propinsi Sumatera Selatan	
7	Friana Huswani	Badan Lingkungan Hidup Propinsi Sumatera Selatan	

8	Febriana Damayanthi	Badan Lingkungan Hidup Propinsi Sumatera Selatan	
9	Purnawan	UPTD Pengendalian Kebakaran Hutan dan Lahan Propinsi Sumatera Selatan	
10	Adang	UPTD Pengendalian Kebakaran Hutan dan Lahan Propinsi Sumatera Selatan	
11	Tubagus Angga A. Syatana	Litbang Kehutanan Propinsi Sumatera Selatan	081321641370
12	Laila Fahri	BPDAS Musi	
13	Wahyu Sejati	BPDAS Musi	
14	Octavia S	BKSDA Propinsi Sumatera Selatan	085224202835
15	Budi Wiyana	Balai Arkeologi Palembang	08127870071
16	Siskha Herdianti	BPPHP Wil V Palembang	081367084438
17	Allan Rosehan Y	Balai Taman Nasional Sembilang	081540080756
18	Teguh Imansyah	Balai Taman Nasional Sembilang	081373867886
19	Piter Haryanto	Dinas Pertambangan & Energi Propinsi Sumatera Selatan	08127383654
20	Nurhatini, SE	Dinas Pertambangan & Energi Propinsi Sumatera Selatan	081367624245

2. Local Government Agencies (SKPD) of Musi Banyuasin Regency

No	Name	Institution	Telp
1	Hotma P. Siregar	Dinas Kehutanan Kab. Musi Banyuasin	081367167598
2	Yadhe S	Dinas Kehutanan Kab. Musi Banyuasin	
3	Firdaus	Dinas Perkebunan Kab. Musi Banyuasin	08218271240
4	Ir. Herry	Dinas Perikanan dan Kelautan Kabupaten Musi Banyuasin	085383836513
5	Jetri Alex Sinai	Badan Lingkungan Hidup Kabupaten Musi Banyuasin	081320028561
6	Hendra	Dinas Pertambangan dan Energi Kabupaten Musi Banyuasin	
7	Nazarudin	Badan Penyuluhan Pertanian, Perikanan dan Kehutanan	08127882483
8	Sofyan	Badan Penyuluhan Pertanian, Perikanan dan Kehutanan	082176565114

9	Dodi O	KPHP Lalan	0812782188
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3. Local Government Agencies (SKPD) of Banyuasin Regency

No	Name	Institution	Telp
1	Syahfudin	BAPPEDA Kabupaten Banyuasin	
2	M. Jupri	Badan Lingkungan Hidup Kabupaten Banyuasin	
3	Eko	Badan Lingkungan Hidup Kabupaten Banyuasin	
4	Irham, SH., MSI	DPRD 2 Kabupaten Banyuasin	
5	Tatang Kusnadi		
6	Ediso N	Dinas Pertambangan dan Energi Kabupaten Banyuasin	
7	Yoan Desnada	Dinas Pertambangan dan Energi Kabupaten Banyuasin	

4. Local Government Agencies (SKPD) of Musi Rawas Regency

No	Name	Institution	Telp
1	Ir. Tri Retiyanto, M.M	Dinas Kehutanan Kabupaten Musi Rawas	081367980083
2	Salman, SH	Dinas Kehutanan Kabupaten Musi Rawas	081996272559
3	Sri Lestari	Dinas Pertanian dan Peterakan Kabupaten Musi Rawas	081367082814
4	Albi P	BAPPEDA Kabupaten Musi Rawas	08132197007
5	Supriyanto	BLH Kabupaten Musi Rawas	085267136165
6	Rahman Thahir	BLH Kabupaten Musi Rawas	081271345000
7	Yanuar Slaeh	Dinas Sosial Kabupaten Musi Rawas	081368635611

5. Academician

No	Name	Institution	Telp
1	Endang Susilawati	Instiper Sriwigama	081279052651
2	Doni Setawan	Fak. Biologi UNSRI	08127864229
3	DR. Indra Yustian, S.Si., MSC	Fak. Biologi UNSRI	
4	Andi Agus Salim, S.Si., M.Si	FMIPA UNSRI	
5	Dr. rer.nat. Risfidion M, M.Sc	FMIPA UNSRI	

6	DR. Mulawarman	PPSL UNSRI	
7	DR. Subardin	UNSRI	081368075752
8	Dyafrul, S.ut., M.Si	STIPER	082133221147
9	Lulu, S.Hut., M.Si	Univ. Muhammadiyah Palembang	081377530575
10	Delfy Lensari	Prodi Kehutanan FP.UMP	
11	DR. Maryadi	Fak. Pertanian UNSRI	085289696765

6. Partner

No	Name	Company	Telp
1	Iskandar A	PT. Restorasi Ekosistem Indonesia	
2	Yudha Angga S	PT. Restorasi Ekosistem Indonesia	

7. Non-Governmental Organization

No	Name	Organization	Telp
1	Deddy Permana	WBH	
2	Fakhrizal FP	LSM Bakau	
3	Benny Hidayat	LSM Bakau	
4	Ismail	WALHI	
5	Yulian Junanto	WALHI	
6	Adryan	WALHI	
7	Jadid	Pilar Nusantara	
8	Nunik Handayani	FITRA	
9	Rina Bakrie	Yayasan Puspa	
10	Prasetyo	KPB-SOS	
11	Sigid W	KPB-SOS	
12	Fikri	PSDAB	
13	Tamsil	LBH	0823712054
14	Ali Goik	AMAN	

15		Khatulistiwa Hijau	
16	Evi Kartini	MAPALA SABAK	085768658176
17	Heni Martini	MAPALA SABAK	081367447021
18	T. Wijaya	Lembaga Analisis Informasi	
19	Arga Yudhita	GEMA PERSADA	081366627078
20	Debi Leo Candra	GEMA PERSADA	085377060580
21	Endo Fedriansyah	BINA DARMA	081929256181
22	Mira Safitri	INA DARMA	081929333889
23	KMS. Fathussalaami	MAPALA IAIN Raden Fatah	087822844410
24	Bintang Delana P	MAPALA IAIN Raden Fatah	085789087054
25	M. Widad	WIGWAM UNSRI	
26	Aditya	WIGWAM UNSRI	
27	M. Fathoni	KPPM Sekayu	081366521810
28	Rahmah Awaliah	SPI	085266813165
29	Anton Simamora, SE	LPLH-Sumsel	
30.	M. Syarifudin	Yayasan SPORA	
31	A.Muhaimin	Pemali Sumsel	
32	Maryani	Pemali Sumsel	

Public Consultation Result

HCV Potential	Status	Threats	Management Recommendations
HCV 1-6	Declining forest area	Land clearing by slash and burn	Engaging communities and private sectors in monitoring to prevent forest fire
		Illegal logging	Government officials should take actions upon illegal logging
HCV 1.2 & 1.3	Declining of species types and individual	Disconnected wildlife corridors caused by land and road clearing	Establishing wildlife corridor
		Poaching	Establishing team consist of community, private company and government.
HCV 1.2	Less population (Sumatran tiger)	Disconnected wildlife corridor HCV1.2	Making wildlife corridor HCV 1.2 (Sumatran Tiger) in one

			landscape (PT SHP – PT PTJ – PT RHM with Sembilang NP
		Illegal Hunting	Establishing patrols consist of community and law enforcement officers
HCV 1.3	Declining population	Habitat fragmentation	Conservation areas in UMH (PT SHP- PT PTJ – PT RHM) are in adjacent location; thus declining the ‘edge effect’ of the habitat. HCV 1.3 species sustainability can be secured from its wider habitat area.
		Animals killed by vehicles	Establishing wildlife corridors, by engaging private companies and community
HCV 2	Disrupted natural ecosystem	Encroachment	Clear boundary marking
			Controlling illegal logging
HCV 3	Drastic decline of endangered species	Forest fire	Engaging community and private companies in monitoring activities to prevent forest fire.
		Land clearing done by local community	Reforestation of forest area
			Limiting access to enter forest area
		Company activity	Socializing to employee and community about forest area through education and training.
HCV 3 and 4	Damaging in peatland area	Declining water level in peat area	Managing unstable water source to protect peat area.
			Making an arrangement with community concerning protecting peat area.
		Illegal logging	Signboards and warning
			Empowering community in managing forest
HCV 4	Declining water quality	Declining rate of river’s debit level	Managing riverbank area
		Illegal logging in catchment area	Planting trees that bind soil
			Conserving riverbanks
HCV 5	Declining rate of natural resources	Illegal logging and forest fire occurred by illegal logging	Using CSR as community source of income, ex: cultivating guava, mangrove nursery
HCV 6	Many old relics have not listed yet	Old relic loss and neglect	Socialization to private companies, and local community about environmental laws, cultural heritage laws and

			archaeological discoveries.
			Increasing public and government awareness on cultural preservation

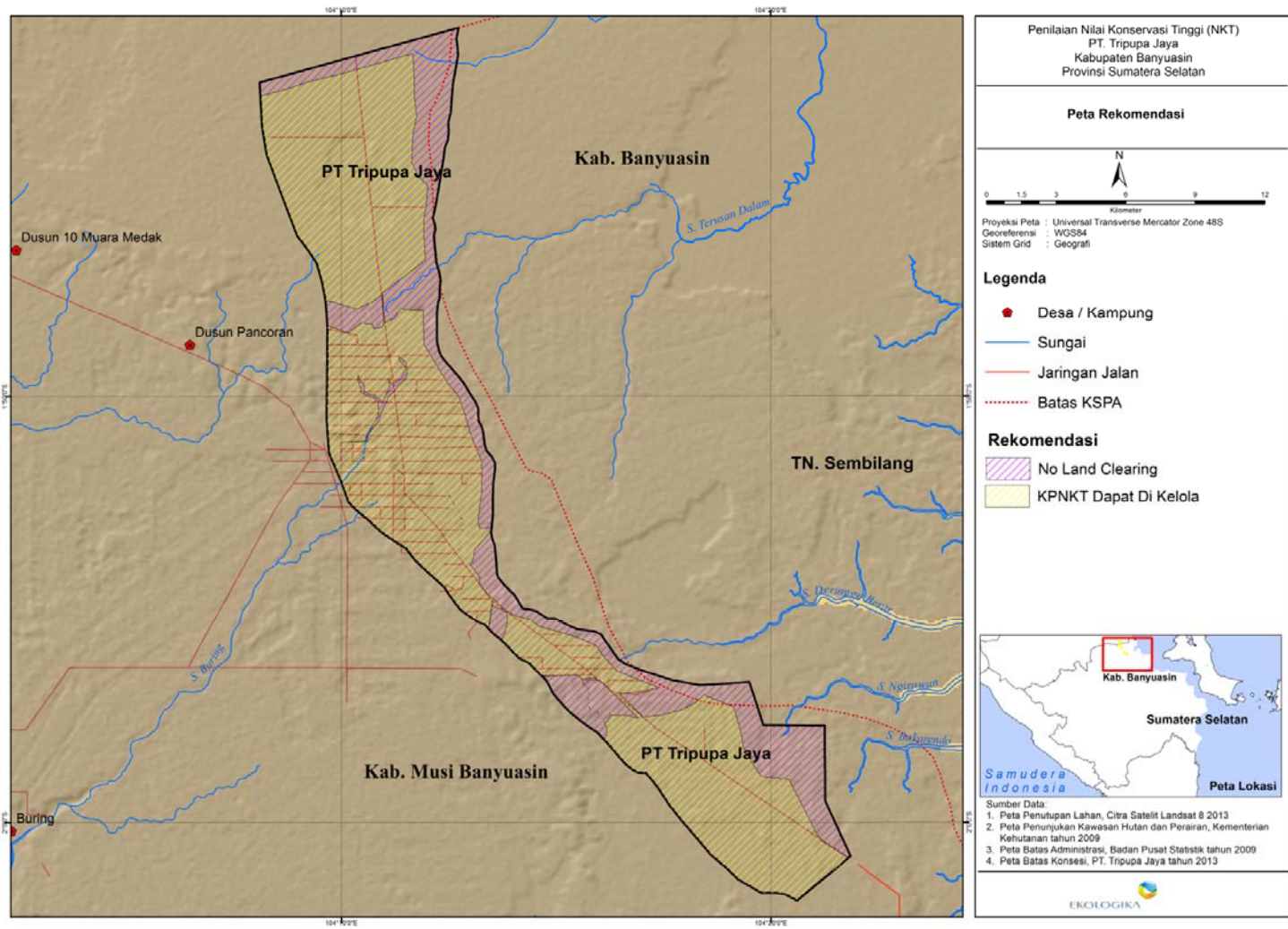
4. RECOMMENDATION

HCV	Sub HCV	Definition	Management	Monitoring
1.	1.1	Region which have or Provide Biodiversity Support Functions For Protected Areas and / or Conservation	HCVA Boundary	monitoring the condition of the protected area after HCVA boundaries
			Controlling illegal logging in forest areas	Joint patrols with forest ranger and community
			Increase understanding of employees, contractors and the public about wildlife	Seeing the amount of poaching that occurred
			Designating riverbank as conservation area	Takes measurements directly in the field
			Engaging community in monitoring land use agreement	Monitoring of land use by Using satellite imagery
	1.2	Endangered Species	Controlling illegal logging in forest areas	Joint patrols with forest ranger and community
			Mapping CR Species Individu	Recording and tagging of CR stands
			Rescues the seedlings of Dipterocarpus elongatus, Hopea mengarawan, Shorea platycarpa, Shorea cf balangeran.	Recording of seedling development with biodiversity surveys and vegetation research
			Hunting ban and Improved Understanding of employees and communities about wildlife	Patrol system and enforcement reporting system for monitoring, installation of camera traps in locations known for animal trails.
			Mapping out vulnerable areas / potentially cause a fire	Observing hotspots with community based fire management
	1.3	Areas/sites that have or give Biodiversity Supporting Function for Protected and/or	Hunting ban	Patrol system and enforcement reporting system for monitoring, installation of camera traps in locations known for animal trails.
			Increases employee and public understanding	UP RHM staff has conducted regular monitoring of fauna in

HCV	Sub HCV	Definition	Management	Monitoring
		Conservation Areas.	about wildlife	the area of the UP, including blocks of Plant Industry. Monthly Monitoring reports to the HCV species include there is or not the HCV species, as well as threats that might be exist
			Controlling illegal logging in forest areas	Monitoring and patrolling intensively (minimum once a month) to ensure that there is no illegal logging in the concession area, staff, forest ranger and community
			Allowing Natural Succession	Conducts a survey of biodiversity and the presence of invasive species in conservation area
			Mapping out vulnerable areas / potentially cause a fire	Observes hotspots with the care-fire community
			The establishment of Care-Fire Community	Patrolling especially during the dry season
2	2.1	Large natural landscapes with capacity to maintain natural ecological processes and dynamics	Landscape Management Cooperation	Report of each stakeholders's activities
			Controlling illegal logging in the forest, Law Enforcement and Determination of Forest Natural Protected Areas	Monitoring and patrolling intensively (minimum once a month) to ensure that there is no illegal logging in the concession area, staff, forest ranger and community
	2.2	Areas that contain two or more contiguous ecosystems	Not opening the region (land clearing) in the area of river borders and natural forests which are designated as HCVA 2.2	Direct field observation to visitable areas
			Controlling illegal logging in forest areas	Joint patrol with law enforcers
	2.3	Areas that contain representative populations of most naturally occurring species	Law Enforcement and Determination of Natural Forest Protected Areas	Patrols periodically
			Habitat enrichment	Checking the condition of each semester
			Development of Pre-Planting Monitoring Mechanism	Checking the land to monitor the activity status. Monitoring of the condition of endangered species
			RKT and RKU Emphasis Planning	Evaluation of forest management SOP
			Landscape Management Cooperation	Report of each stakeholders's activities

HCV	Sub HCV	Definition	Management	Monitoring
3		Rare or Endangered Ecosystem Area	Landscape Management Cooperation	Report of each stakeholders's activities
			Law Enforcement and Determination of Natural Forest Protected Areas	Patrols periodically
4	4.1	Important areas or ecosystem that function as water supply and flood control for community that resides in downstream areas.	Law Enforcement and Determination of Natural Forest Protected Areas	Patrols periodically
			Keeping the water level in the forest / peat swamp	Measuring ground water level in the peat area, installing subsidence indicator and measuring subsidence level.
			Keeping the ground water remains high	Periodic measurements of water flow rate
			Landscape Management Cooperation	Report of each stakeholders's activities, vegetation monitoring in border region
	4.3	Areas that function as natural barriers to prevent forest or field fire.	Law Enforcement and Determination of Forest Natural Protected Areas	Patrols, "Spot-check" survey, and forest buffer condition of the result of Production and logging team and forest fire unit
			Increased public awareness of the dangers of land clearing by burning	The reporting system about land clearing methods and activities
			Optimizing Care-Fire Community	"Spot-check" surveys of the result of Production and logging Team and forest fire unit
			Enrichment Local Type	Conducted a survey in the area of biodiversity conservation
5		Areas with Important Functions to fulfill Local community's basic needs.	Lalan sub watershed management collaboration among companies that are around the Lalan river together with the community	Regular meetings involve companies that operate in the region and involves government and society
			Awareness to the community about the importance of forest functions	Activity report and attendance for participants
			No land use in HCV-5 around the village by the company and by the community	Field verification by conducting interviews with local people and field visits

HCV	Sub HCV	Definition	Management	Monitoring
			Determination of honey bee habitat areas	Field verification by conducting interviews with local people and field visits
			Developing a sustainable community development program	Participatory evaluation of the community development program with the participants/beneficiaries
			Participatory mapping to finalize HCVA 5	Report of community mapping
6		Areas with Important Functions as Traditional Cultural Identity of Local Communities.	Identification and delineation of further HCV	Questionnaires and interview sampling community and document mapping
			Reactivate the local traditions	Field visit



Map Summarizes no Land Clearing and HCV management of TPJ

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