

Summary Report of Planning & Management of PT Persada Bangun Jaya Kalimantan Timur

1. Executive Summary.

PT. PBJ 2-Kaltim is plans to develop approximately 2,924 ha (originally $\pm 3,057$ ha) of oil palm plantings for REA's PLASMA scheme. The original extent was 3,057 ha but was revised on the 28 November 2013 according to Keputusan Bupati Kutai Kartanegara, *Nomor 590/525.29/30/A.Ptn*. In line with the requirements of RSPO's New Planting Procedures (NPP) an independent High Conservation Value assessment is required among other things. The project site is referred to as an estate called Persada Bangun Jaya (PBJ 2) Kaltim which will be used by REA to develop plasma oil palm plantings. The project site was also named as PT.Persada Bangun Jaya (Kembang Jangut) in the Izin Lokasi document dated 28 November 2013. This site is in the Kabupaten of Kutai Kartanegara, Kecamatan of Kembang Jangut, and officially¹ overlaps with the 5 desas namely Penoon, Long Beleh Modang, Long Beleh Haloq, Muai and Kelekat. In the HCV and SIA assessment, Penoon was omitted as the company stated that the village was not involved in the process. This site is intended to be developed as 'Plasma' on behalf of 4 different local communities and be managed as a single entity by a single management body. The four local communities are from Kembang Jangut, Long Beleh Haloq, Muai and Kelekat. The community from Long Beleh Modang will be allocated their plasma holdings in a different area in the near future. The allocation of Plasma to the different communities is yet to be finalised and legally approved by the government. The finalization of this exercise is expected to be completed over the next few months.

The estate is located on the northern boundaries of the REA Kaltim estates of Lestari, Cakra, Damai and Berkat. The land is generally undulating, and slightly hilly towards the south. The area is drained by three main rivers – the Loa Wen in the north, the Lurah in the middle and the Hapai in the south. The area has three soil types, two of which are considered suitable for agriculture and much of the area has generally been disturbed by logging, clearing for farming and burning as well as mining in the north. The vegetation is thus mainly secondary in nature except for small patches nearer the rivers which have recovered or has been left less disturbed.

The objective of the assessment is to determine the ecological condition, vegetation types and also identity of important species of plants and animals found in the area in order to identify High Conservation Values (HCV) within the proposed estate. This will assist in identifying areas which need to be set aside before any/ further clearing begins. Despite of that social impact assessment (SIA) was done to collect basic information related to various social issues related to the livelihoods of local community around the area of the plantation, and also to gather information on the social impact caused by the presence and activities of the company's operations, in particular the plasma towards community development plans. With all these information obtained from SIA the management recommended for the company can be establish to manage the social impacts that have occurred and to anticipate the social impacts that are likely to arise (advancing benefits and mitigating adverse effects).

¹ This is based on the Keputusan Bupati Kutai Kartanegara, Nomor: 590/525.29/30/A.Ptn tentang Revisi & Perpanjangan Izin Lokasi Untuk Keperluan Inti Plasma Perkebunan Kelapa Sawit Pt Persada Bangun Jaya, 28 November 2013.

As the area of the development has been reduced from ±3,050 ha to ±2,924 ha according to the 28 November 2013 document (Keputusan Bupati Kutai Kartanegara, *Nomor 590/525.29/30/A.Ptn*), there is no requirement for an Environmental Impact Analysis (AMDAL) under Indonesia law. There is however a requirement for an Environment Management Plan (*Upaya Pengelolaan Lingkungan Hidup* (UKL)) and an Environment Monitoring Plan (*Upaya Pemantauan Lingkungan Hidup* (UPL)).

The assessment of HCV involves a multistage procedure. It starts off with a preliminary desktop analysis using a Geographical Information System (GIS) analysis which requires the input of maps and information from various sources to be integrated. This is followed by field survey(s) to obtain ecological and biological data – vegetation types, flora and fauna as well as forest stand data (species and diameter measurements). The field data is analysed and the identification of conservation status of ecosystems and species of plants and animals recorded based on the IUCN Red List and other stakeholders such as NGOs like Birdlife International and WWF and also the protected species list of respective countries. The information is then incorporated into the GIS to generate maps and information on HCV found in the area of interest.

The Social Impact Assessment (SIA) for PT. PBJ 2-Kaltim was conducted on a number of occasions between November 2013 and January and March 2014. The assessment was conducted in a number of villages within the HGU and the Izin Lokasi of PBJ 2-Kaltim specifically for the establishment of PLASMA for the local communities. The villages with overlapping land in this area are Kelekat, Kembang Janggut, Long Beleh Halog, Long Beleh Modang, and Desa Muai.

Socio-economic and cultural assessment was made through interviews of local communities and stakeholders within and adjacent to area of interest (proposed company site); including their dependence on the forest and rivers for their livelihood. Basic socio-economic and cultural survey of local communities; ethnicity, cultural, religious background; economic info: sources of income and livelihood and dependence on forests and area of interest for livelihood and also cultural and traditional needs. Data collection to include village administration; land ownership; identifying sub-groups in each village based on their livelihood pattern; identifying how the community meets their basic needs; identifying sustainable uses of resources compatible with other HCVs and developing a Basic Needs matrix. From a review of the findings of the principal issues with attention to the social context surrounding communities, it can be concluded that the presence and operational management of oil palm plantation by PT. PBJ2-Kaltim has an impact on the environmental aspects of community life, namely, the social life and economic / financial .

For new planting areas, the RSPO requires the extent of areas cleared between the 1st January, 2006 and 31st December 2009 and after the 1st January 2010. From the desktop study and GIS analysis, successional models based on satellite images allow comparison to be made in the change of successional stages in the time intervals between 2004 and 2009, and from 2010 to 2013. No late succession or virgin areas were present in the project areas, and all areas cleared had previously been disturbed. Late succession areas were only cleared in the earlier time period. After 2009, the only available late successional areas would have been flood prone riverine areas. Most of the areas cleared were in an early successional stage. These would have been areas where most of the original woody vegetation would have been removed for timber.

The HCV sites identified in the PT. PBJ 2-Kaltim plasma area would require appropriate management to ensure that the value is either maintained or enhanced. Historical clearing in the area is rampant and the local community has seen the area as an opportunity to expand their holdings. Areas have been cleared and developed for oil palm smallholdings. There is also the pressure from coal mining activity. Any initiative made by the project proponents to invest in HCV management for these species in their current locations will need the endorsement and constructive support by these communities. Without such support, current available the habitat quality for these species will continue to decline below a level that could support a viable population. Some of the actions will involve active socializing with the local communities.

1. Reference Documents

The reference documents are as follows:

1.1 Assessment Reports

- 'High Conservation Value (HCV) Assessment-Volume I & II for Oil Palm Plantation Development PT. Persada Bangun Jaya, PT. PBJ2-Kaltim', (February 2014)
- '*Social Impact Assessment for Oil Palm Plantation Development of PT. Persada Bangun Jaya (PT. PBJ2-Kaltim)*', (March 2014)
- '*Upaya Pengelolaan Lingkungan Hidup dan Upaya Pemantauan Lingkungan Hidup, Usaha dan/ Kegiatan Budidaya Tanaman Perkebunan Tahunan (Kelapa Sawit), PT Persada Bangun Jaya*', (November 2013)

1.2 Related Legal and Regulatory Permits

The reference documents as table below:

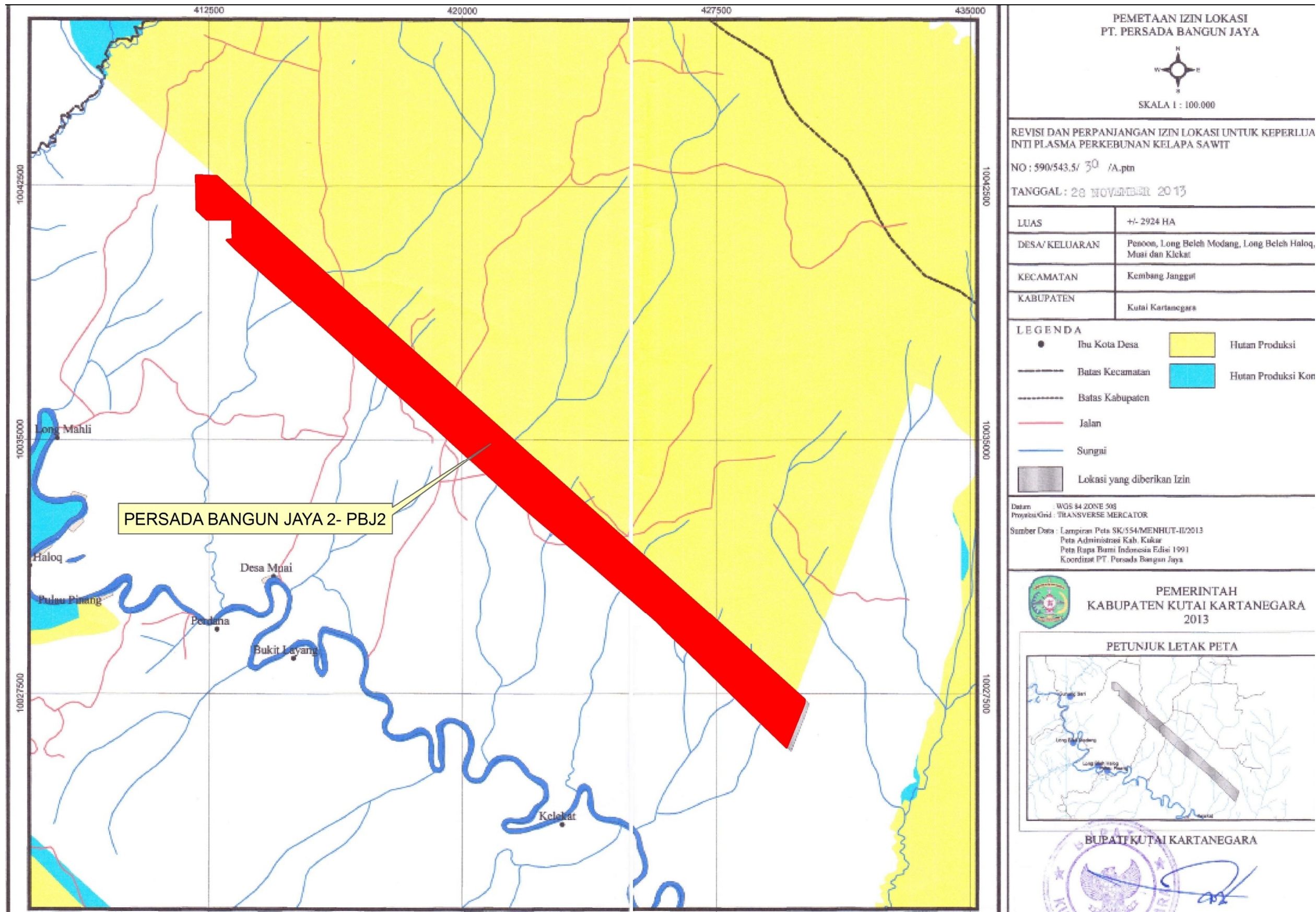
Table 1.1: List of related legals and Regulatory permits of PT. PBJ 2-Kaltim

No	Permit	Issued by	Date	Number	Location	Validity	Remark
Company Registration/ TandaDaftar Perusahaan (TDP)							
1	Company Registration	Department of Industry and Trade in Samarinda	30-Nov-11	17.01.1.01.01696 /BPPTSP-C/XI/2011	Jl. AnggrekMerah 3 Komp. BAP No. 28 RT. 025, Kel. Air Putih, Kec. SamarindaUlu, Samarinda	30-Nov-16	
2	Company Registration	Department of Industry and Trade in Samarinda	19-Jan-12	17.06.1.46.01338	Jl. AnggrekMerah 3 Komp. BAP No. 28 RT. 025, Kel. Air Putih, Kec. SamarindaUlu, Samarinda	19-Jan-17	
3	Company Registration	Licensing Service Agency One Stop Samarinda Government	21-Jan-13	17,01,1,01,02586	Jl. HasanBasri No. 21 A RT. 24, KelurahanTemindungPermaiKecamatan Sungai Pinang, Samarinda	21-Jan-18	
Business License							
1	Trading Business License (Small-Scale)	Department of Industry and Trade in Samarinda	29-Nov-11	503/00794/17-01/PM/BPPTSP-C/XI/2011	Jl. AnggrekMerah 3 Komp. BAP No. 28 RT. 025, Kel. Air Putih, Kec. SamarindaUlu, Samarinda	4-Dec-14	Required by the company to conduct trading activity.
2	Trading Business License (Medium-Scale)/ <i>SuratIzin Usaha Perdagangan (SIUP) Kecil</i>	Licensing Service Agency One Stop Samarinda Government/ <i>BadanPelayananPerizinan TerpaduSatuPintuPemerintah Kota Samarinda</i>	21-Jan-18	503/00084/17-01/PM/BPPTSP-C/I/2013	Jl. HasanBasri No. 21 A RT. 24, KelurahanTemindungPermaiKecamatan Sungai Pinang, Samarinda	21-Jan-18	
IzinTempat Usaha/ Domicile Permit							
1	Domicile Permit/ <i>SuratIzin Usaha Umum (SITU)</i>	Pemerintah Kota Samarinda Samarinda City Government	28-Nov-11	503/3429/1917.A /BPPTSP-C/XI/2011	Jl. AnggrekMerah 3 Komp. BAP No. 28 RT. 025, Kel. Air Putih, Kec. SamarindaUlu, Samarinda	28-Nov-14	
2	Business Domicile Permit/ <i>IzinUndang-</i>	PemerintahKabupatenKutaiKartanegara	12-Jan-12	300/020/SK/TRA MTIB-TGR/I/2012	Jl. AnggrekMerah 3 Komp. BAP No. 28 RT. 025, Kel. Air Putih, Kec.	12-Jan-15	

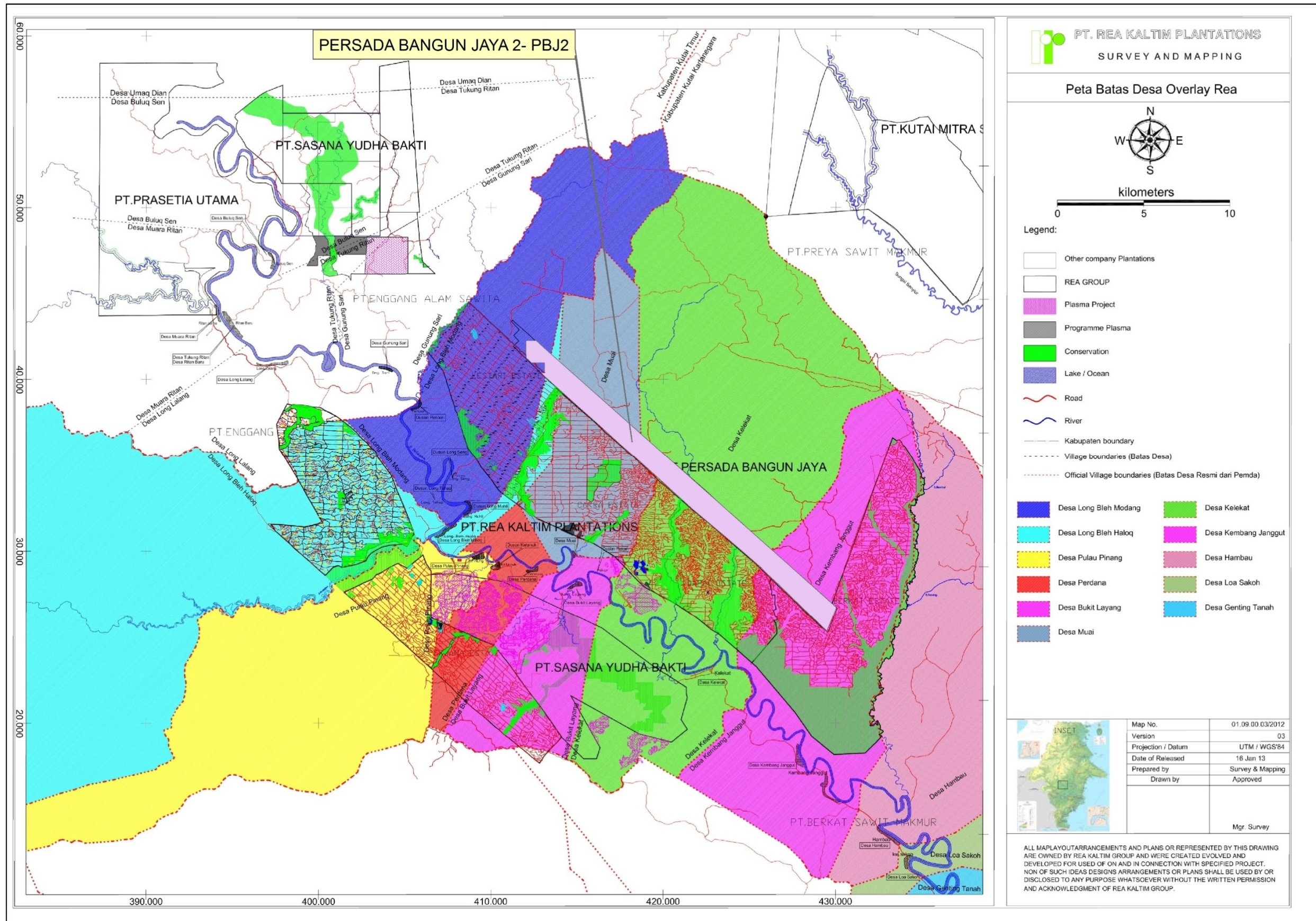
	UndangGangguan HO	KutaiKartanegara District Government			SamarindaUlu, Samarinda		
3	Domicile Permit/ <i>SuratIzinTempat Usaha Umum</i>	Licensing Service Agency One Stop Samarinda Government	16-Jan-13	503/190/118.A/B PPTSP-C/I/2013	Jl. HasanBasri No. 21 A RT. 24, Samarinda	16-Jan-16	
IZIN-IZIN BERKAITAN DENGAN LOKASI/TANAH / <i>Permits related to Location/Land</i>							
1	Location Permit for Cultivation of Palm Oil Plantation Business area ± 2.142 Ha	Regent Government Decree in KutaiKartanegara	4-Jun-12	525.29/K.537a/2012	KampungResak, Jambuk&MuaraGusik, Kec. Bongankab. Kutai Barat	4-Jun-15	
2	Location Permit for Cultivation of Palm Oil Plantation Business area ± 3.050 Ha	Regent Government Decree in KutaiKartanegara	20-Feb-12	590/525.29/002/A.Ptn	DesaPenoon, Long BelehModang, Long BelehHaliq, MuaidanKelekat, Kec. KembangJanggut, Kab. KutaiKartanegara	20-Feb-13	
3	Location Permit for Cultivation of Palm Oil Plantation Business area ± 2.345 Ha	Regent Government Decree in KutaiKartanegara	28-Dec-12	590/525.29/036/A.Ptn	DesaGunung Sari Kec. Tabang, Kab. KutaiKartanegara	28-Dec-15	
4	Extension to the Location Permit for Oil Palm Plantation area of ± 3.050 Ha	Regent Government Decree in KutaiKartanegara	28-Feb-13	590/525.29/02/A.Ptn	DesaPenoon, Long BelehModang, Long BelehHaliq, MuaidanKelekat, Kec. KembangJanggut, Kab. KutaiKartanegara	28-Feb-14	
5	Revision & Extension to the Location Permit for Oil Palm Plantation No.590/525.29/02/A.Ptn area of ± 2.924 Ha	Regent Government Decree in KutaiKartanegara	28-Nov-13	590/525.29/30/A.Ptn	DesaPenoon, Long BelehModang, Long BelehHaliq, MuaidanKelekat, Kec. KembangJanggut, Kab. KutaiKartanegara	28-Nov-14	
6	Location Permit For Oil Palm Plantation Plasma Core area of ± 2,345 Ha	Regent Government Decree in KutaiKartanegara	28-Dec-12	590/525.29/036/A.Ptn	DesaGunung Sari Kec. TabangKab. KutaiKartanegara	28-Dec-15	
CUSTOMS AND TAX / BEA CUKAI & PAJAK							

1	Tax-payer Registration Number	Directorate General of Taxation	24-Nov-11	03.194.826.8-722.000	Jl. AnggrekMerah 3 Kop. BAP No. 28 RT. 25 Air Putih, SamarindaUlu, Samarinda	N/A	
ENVIRONMENTAL DOCUMENTS/ DOKUMEN LINGKUNGAN HIDUP							
1	Regent Government in KutaiKartanegara	06-May-13	24/REK OM/UKL - UPL/V/2013	Desa Long BelehModang, Muai, KelekatKecamatanKembangJanggutKabupatenKutaiKartanegara	N/A		
2	Regent Government in KutaiKartanegara	08-May-13	42 Tahun 2013	Desa Long BelehModang, Muai, KelekatKecamatanKembangJanggutKabupatenKutaiKartanegara	<i>The Same Applies to The Validity Period of a Business License And/Or Activities</i>		
3	Regent Government in KutaiKartanegara	08-May-13	42 Tahun 2013	Desa Long BelehModang, Muai, KelekatKecamatanKembangJanggutKabupatenKutaiKartanegara	<i>The Same Applies to The Validity Period of a Business License And / Or Activities</i>	<i>based on the Decree of KutaiKartanegaraRegent No. 590/525.29 /002/A.Ptn</i>	
Miscellaneous							
1	KlarifikasiLokasi Usahadan/atauKegiatan PBJ-2	<i>Environment Agency Government of KutaiKartanegara Regency</i>	02-Feb-14	660.1/053/B.I.1/B LHD/II/2014	Desa Long BelehModang, Muai, KelekatKecamatanKembangJanggutKabupatenKutaiKartanegara	N/A	

1.3 Location Maps



Map 1.1: Location of PT. PBJ2 -Kaltim



Map 1.23: Map showing village boundaries

1.4 Area of new plantings and time-plan for new plantings

Table 1.2: Area of plantable and extent of HCV

Desa/ Villages overlaps with the planting area	No HCV 1-4, plantable		HCV 1 - 4, conserve		Total PT. PBJ2 - Kaltim
	ha	% of desa	ha.	% of desa	
Kelekat	918.73	77.0%	274.87	23.0%	1,193.60
KembangJangut	525.62	75.9%	166.84	24.1%	692.46
Long BlehHaloq	68.13	72.6%	25.66	27.4%	93.80
Long BlehModang	142.49	92.0%	12.38	8.0%	154.88
Muai	719.71	89.3%	86.66	10.7%	806.36
Grand Total	2,374.68	80.7%	566.41	19.3%	2,941.10

Note: The extent provided in above table is based on GIS analysis.

Table 1.3 : Land Clearing and Planting Schedule

Description	Year		Total (Ha)
	2014	2015	
1. Land Clearing Schedule			
PLASMA	1,200 Ha	905 Ha	2,105
Total			2,105
2. Planting Schedule			
PLASMA	1, 200 Ha	905 Ha	2,105
Total			2,105

2. Management and Planning Personnel

2.1 Organisational Information and contact persons

Company Name :PT.PersadaBangun Jaya 2-Kaltim (PT. PBJ 2-Kaltim)
Company Address :Jl. HasanBasri No. 21 A RT. 24,
KelurahanTemindungPermaiKecamatan Sungai Pinang, Samarinda,
Kalimantan Timur, Indonesia

Phone No/ Fax :0062541732898

Contact Person :

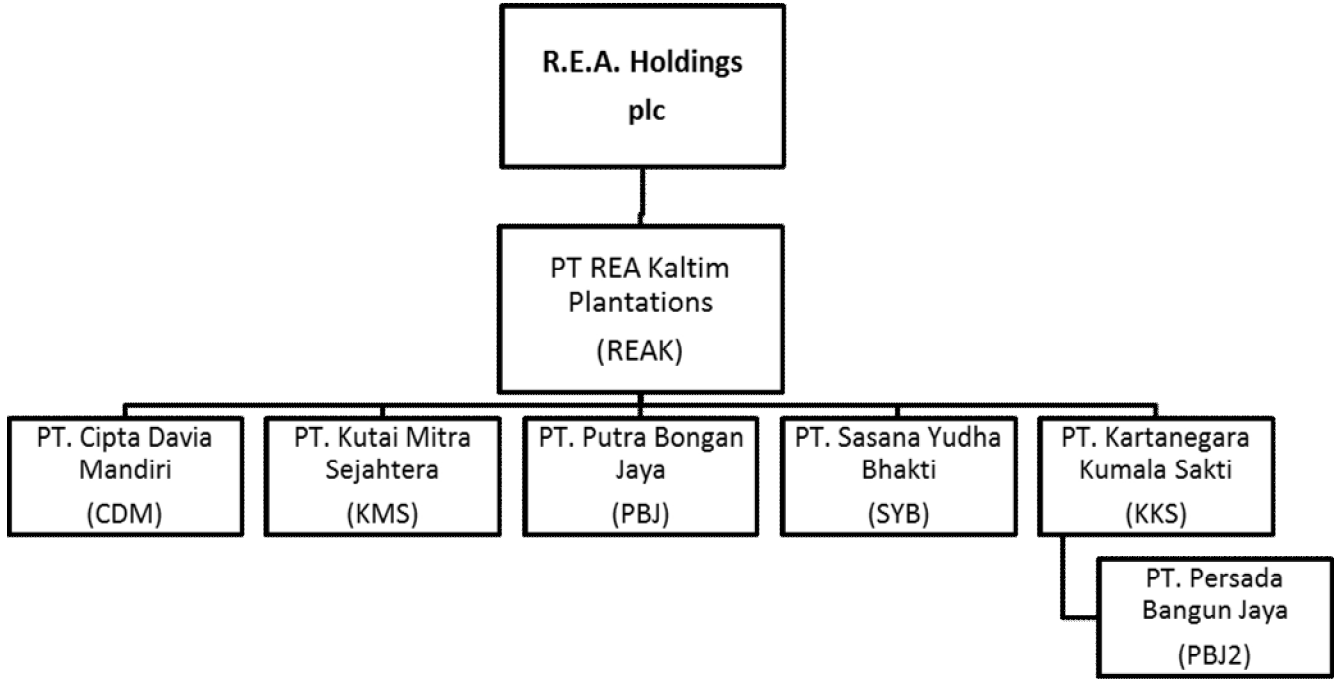
Contact Person	Position	Entity
Mr Murali Tharan	Head of Immature Estates	REA Kaltim Group
Miss Sophie Persey	Group Sustainability Manager	REA Holdings

2.2 Personnel involved in planning and implementation

Role	Responsibility	Entity
Head of Immature Estates (Mr Murali Tharan)	Planning and overseeing all land clearing & planting	REA Kaltim Group
Finance officer, Plasma team (Mr Deny Marihot)	Managing the finance for the development	REA Kaltim Group
Head of Plasma (Mr Selamat Natal Tarigan)	Establishing and managing the relationships	REA Kaltim Group

	with the plasma co-operatives	
Estate Manager (TBC)	Managing all plantation operations	REA Kaltim Group
Sustainability Manager (Mr Ery Priwan)	Ensuring that development is done in accordance with the RSPO Principles & Criteria	REA Kaltim Group

- **REA Holdings Group Organisational Structure**



2.3 Stakeholders to be involved

No	In Cass	Name of Institution	Desa	Department	Name	Occupation
1.	Said Rum Hakiki	Koperasi Perkebunan Etam Bersatu	Kelekat	Ketua Koperasi	Seradin	Perangkat Desa
				Wak. Ketua Koperasi	Haryanto	Swasta
				Sekretaris	Anton Siausin	Petani
				Wakil Sekretaris	Relidin	Petani
				Bendahara	Witim	Petani
				Kepala Desa Kelekat	Rudi	Swasta
				Kepala Adat Desa Kelekat	Liseh	Petani
				Ketua BPD Desa Kelekat	Alexander	Petani
				Ketua LPM Desa Kelekat	Usman A.	Petani
2.	Said Rum Hakiki	KSU Benua Etam Jaya	Kembang Janggung	Ketua Koperasi	Doliansyah	Perangkat Desa
				Wak. Ketua Koperasi I	Ismid	Guru
				Wak. Ketua Koperasi II	Jamran	Petani
				Sekretaris	Agus	Honoror
				Wakil Sekretaris	Arhanuddin	Guru
				Bendahara	Ahmad Sumber Rianto	Swasta
				Wak. Bendahara	Jailani	Swasta
				Kepala Desa Kb. Janggung	Aslan	Perangkat Desa
				Kepala Adat Desa Kb. Janggung	Asan S.	Petani
				Ketua BPD Desa Kb. Janggung	Safransyah	Perangkat Desa
				Ketua LPM Desa Kb. Janggung	Arwadi	Petani

No	In Cass	Name of Institution	Desa	Department	Name	Occupation
3.	Said Rum Hakiki	-	Muai	Ketua Koperasi	-	
				Wak. Ketua Koperasi I	-	
				Sekretaris	-	
				Wakil Sekretaris	-	
				Bendahara	-	
				Wak. Bendahara	-	
				Kepala Desa Muai	Bakhtiar	Perangkat Desa
				Kepala Adat Desa Muai	Yusni	Petani
				Ketua BPD Desa Muai	Simon	Petani
				Ketua LPM Desa Muai	-	
4.	Said Rum Hakiki	-	Penoon / Long Beleh Modang	Ketua Koperasi	-	
				Wak. Ketua Koperasi I	-	
				Wak. Ketua Koperasi II	-	
				Sekretaris	-	
				Wakil Sekretaris	-	
				Bendahara	-	
				Wak. Bendahara	-	
				Kepala Desa Penoon	Amsar	Perangkat Desa
				Kepala Adat Desa Penoon	Jai Asnudi	Petani
				Ketua BPD Desa Penoon	Ahmad Dani	Petani
Ketua LPM Desa Penoon	-					
5.	Said	-	Long Beleh	Ketua Koperasi	-	

No	In Cass	Name of Institution	Desa	Department	Name	Occupation
	Rum Hakiki		Haloq	Wak. Ketua Koperasi I	-	
				Sekretaris	-	
				Wakil Sekretaris	-	
				Bendahara	-	
				Wak. Bendahara	-	
				Kepala Desa LB. Haloq	Saiful Anwar (PJS)	Perangkat Desa
				Kepala Adat Desa LB. Haloq	-	
				Sek. Adat Desa LB. Haloq	Asmuransyah	Petani
				Ketua BPD Desa LB. Haloq	Suhaimi	Petani
				Ketua LPM Desa LB. Haloq	Hasni	Petani

3. SUMMARY OF FINDINGS

3.1 Summary of Management and Mitigation Plans-Environmental Assessment (4a)

Based on the following documents:

- Environmental Management Plan (UpayaPengelolaanLingkunganHidup- UKL)
- Environmental Monitoring Plan (UpayaPemantauanLingkunganHidup- UPL)

Mitigation & management plans for the impacts

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
A. Pre Development Phase						
1. Land Acquisition						
- Social Conflicts						
Arise of social conflicts among the local community and also potentially create a conflict between local community and the company	Land Acquisition process	Conflict occur between community and company	At the location of the land acquisition activities will be conducted	to avoid the conflict between the local community or between the community and the company	1. Socialization process regarding to the boundaries of land to be released in the plantations plan.	Prior to land acquisition process
					2. Make a deal on compensation value between company and the land owner (local community)	
					3. Avoid the land acquisition process in the conflicts area	
					4. Involves the district and land department in the implementation and process of land acquisition.	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
2. Labour Reception/ Intake of Labour						
- Field work						
Employment opportunities for local community created	increasing income of local communities with recruitment activities	the number and proportion of local labour employed	Desa Long BelehModang, Muai, Kelekat, KembangJanggut , KecamatanKembangJanggutand management office PT. PBJ	To provide opportunity and to empower the potential of the local community workforce	1. Prioritize the recruitment from local residents	During the recruitment activities
					2. Made the announcement and put a notice in the office of the village and district office about the recruitment for PT. PBJ	
					3. Providing education and training to the local workforce to increase skills and expertise accordance with the level of education	
					4. inform the amount, type, classification and labour skills required and report to the DISNAKERTRANS, District of Kutai	
					5. Initiator in cooperation with the Village Administration, District and Department of Labour on local recruitment	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					6. Announced the results of the recruitment in the village and sub-district offices	
					7. Do not employ workers under the age of 18	
- Local Community Perception						
An increase in the income of people employed in the oil palm plantation activities	is due to the continued impact of the creation of jobs for local people	income levels before and after the operation of the project	Plantation area of PT. PBJ	to maximize the positive impact on the improvement of local community income	1. set a minimum wage according to the UMK (Minimum Wage District) KutaiKartanegara	during the operation of PT. PBJ
					2. Provide education and training to the local workforce to improve the skills and expertise that is expected to increase the income of local employment	
					3. Implement all employment rules, set by the Government	
					4. Spurring the development of the surrounding community effort associated with the operation of the garden, so that can be expected of non-formal job creation	
- General Traffic (Land & water)						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
Traffic disturbances on roads that are used in equipment mobilization activities	crossings of the repetitive units of heavy equipment hauler (trailer)	the level of traffic congestion in the surrounding area of the project site	along the roads involves in the mobilization of equipment	to avoid interference with traffic-control equipment during the mobilization activities	1. Socialise the community about equipment mobilization plan	During to mobilisation activities
					2. Timing in the implementation of mobilization, especially at the time of frequency of vehicle on traffic decreased / low	
					3. Provide road signs around the access in and out of the vehicle to the location of the garden project that looks easy placement	
					4. The maximum vehicle speed is setting at 20km/hour especially when crossing settlements area	
					5. Priority to advance the use of public roads	
					6. Cooperate with related parties (Department of Transportation) to provide escort to the mobilisation process	
- Local community safety						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
The emergence of the risk of traffic accidents; terrestrial and aquatic	Result of the general disruption of traffic around the project area	traffic accidents that occurred	settlements area along the roads and the local water bodies	To avoid the occurrence of traffic accidents related to equipment mobilization activities	1. Did not perform simultaneous mobilization on path/way for the mobilization activities	During to mobilisation activities
					2. Coordination and escort by the Department of Transportation for the management of the trailer units during the mobilization activities	
					3. Slows the vehicle when passing through residential areas and obey traffic signs are there	
					4. Prepare units to move quickly in case of traffic accidents	
B. Development Phase						
1. Development of Plantation Roads						
- Vegetation						
The degradation of natural vegetation due to land opening (clearing) occurs	due to clearing of the plantation road site	Formation of barren land on the opening of plantation road	Along the road	To minimize the degradation of vegetation cover or restrict the opening land area	1. The construction of the road network should be done and planned systematically and to be adapted to the progress of the garden	During the operation of PT. PBJ
					2. Did not make its way in the conservation zone	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					3. Undertake riparian planting of a cover crop on the road	
- Erosion						
The rate of soil erosion increase on the land that are cleared and opened for the development of the plantation roads	The land clearing. Weathering solidity of soil particle surface due to the cut and fill	the increase in the rate of soil erosion that exceeds the erosion threshold predicted	around the plantation area		1. Implement land openings/ land clearing process for road construction in a planned and efficient ways	During the operation of PT. PBJ
					2. Makes peeling porch bench on the field of border road	
					3. Immediately planted land border road openings with cover crops	
					4. Coating maintenance of roads with coral and sand mixture (quarry)	
- Sedimentation						
The increase of sediment loads in the water bodies located around the project area	Is a derivative effect of increasing the rate of erosion on the opening of the roads activities	Sedimentation in water bodies in the project that led to silting	Along the plantation roads	To reduce the sedimentation loads on local water bodies	1. The implementation of development activities in a planned network of garden paths and stages in accordance with the requirement that the land openings that lead to erosion can be minimized	During the operation of PT. PBJ

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					2. Making a trench in the left and right of the road	
					3. Making pond sediment traps at each end of the trench that leads to surface water bodies	
					4. Perform maintenance ditches and sediment traps intensive	
					5. Implement land openings/ land clearing process for road construction in a planned and efficient ways	
					6. Makes peeling porch bench on the field of border road	
					7. Immediate openings planting land border road with a cover crop (cover crop)	
					8. Coating treatment with a mixture of coral roads and sand (quarry)	
- Surface Water Quality						
A decline in the quality of surface water in the water bodies around the project site	Is due to the continued impact of the increase in the rate of degradation of vegetation and soil erosion on	Regulation of East Kalimantan No 2 on 2011, The Managemen t of Water Quality & Water	Around the local's water bodies	to minimize the deterioration of water quality in water bodies around the project site	1. The implementation of development activities in a planned network of plantation road and stages in accordance with the requirement that the land openings that lead to erosion can be minimized	During the operation of PT. PBJ

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
	land openings for the road development	Pollution Control (Class 2)				
					2. Making a trench in the left and right side of the road	
					3. Make a pond sediment traps at the end of every trench that leads to surface water bodies	
					4. Perform maintenance ditches and sediment traps intensive	
					5. Implement land openings/ land clearing process for road construction in a planned and efficient ways	
					6. Makes peeling porch bench on the field of border road	
					7. Immediate plants the land border road with a cover crop (cover crop)	
					8. Coating treatment with a mixture of coral roads and sand (quarry)	
2. Preparation of the Plantation Area						
- Vegetation						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
The degradation of natural vegetation due to land opening (clearing) occurs	direct impact of the cleaning	formation of non-vegetated unfertile land	Around the planting site location	Accelerate the planting of crop plant	1. Conduct land clearing activities systematically and gradually done and the direction of opening the land from the nearest settlement leading to a wooded area	
					2. Planting in areas that have been open as soon as possible in planting staple crops (palm oil) and cover crop planting	
					3. Do not allow the land clearing activities accompanied by the burning of land (zero burning / PLTB)	
					4. Do not perform land clearing to the area that is designated as a conservation zone area	
					5. Maintain conservation area by declare or announce the area as well as disallow encroachment and hunting in the protected area ,enriching the types and locations that have economic value to the surrounding community	
- Erosion						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
The rate of soil erosion increase on the land that are cleared and opened for the development of the plantation roads	a derivative effect of the loss of ground cover vegetation (due to land clearing) on the prepared planting area	the increase in the rate of soil erosion that exceeds the erosion threshold predicted	around the plantation area	to control the rate of soil erosion on the plantation path openings	1. prepare the land for gradual and planned planting area preparation activities	during the preparation of the plantation area
					2. Making residual herbaceous land clearing which is cut lengthwise direction of the slope	
					3. Accelerate the process of planting the staple crops (palm oil) and cover crops in the area of planting plans	
					4. Do not perform the clearing activities of the land with open burning	
- Surface Water Quality						
A decline in the quality of surface water in the water bodies around the project site	Due to the continues impact of the increase in the rate of soil erosion	Regulation of East Kalimantan No 2 on 2011, The Managemen t of Water Quality and Water Pollution	In the project location	To minimize the rapid decline of the water quality in water bodies around the project site	1. Preparation gradual and planned land	During the preparation and activities of the planting and the operation of oil palm plantation

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
		Control(Class 2)				s PT. PBJ
					2. Making residual herbaceous land clearing which is cut lengthwise direction of the slope	
					3. Accelerate the planting of staple crops (palm oil) and cover crops in the area of planting plans	
					4. Do not perform the clearing activities of the land with open burning	
					5. Did not perform clearing on riparian zones and water source as well as maintain existing natural vegetation in the conservation zone	
3. Planting Process/Activities						
- Air Quality						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
Decline in the quality of the air around the road/transportation of oil palm seedlings	During the transportation process of the seedlings from the nursery to the plantation area	Standard Quality content of dust in the air of 0.23 mg/m ³ (ambient air quality standards) based on PP. 41 of 1999 on Air Pollution Control	conducted along the roads of the seeds transportation process	to reduce dust scattered in the air caused by vehicles transporting oil palm seedlings to prevent from exceed the environmental quality standards limit	1. Adjust the speed of the vehicle transportation to the maximum of 20 km/h, especially when passing through the settlement or community area	During the planting activities
					2. Perform a hard compaction and special road haul on the freight crossing paths seeds	
					3. Watering the road every 3 hours on transit lines that pass near the settlement especially in hot weather	
					4. Construct a fire watchtower at the site of the garden with a height of about 25-30m	
4. Conservation of Water and Soil						
- Erosion						
A decline in the rate of the erosion	Planting of the <i>Leguminosae</i>	Government Regulation No.150 of	In the location of soil and water conservation	To minimize and control the rate of erosion	1. Conduct land clearing activities in the hot weather condition (summer)	During the operation of PT PBJ

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
	Cover Crop (LCC) on oil palm plantation area which causes a strong bond of soil particles, thus decreasing the rate of soil erosion	2000 on Land Degradation Control for Biomass Production (critical erosion threshold of 9 tonnes / ha / year)				
					2. Immediately planting the cover crop on soil and water conservation	
					3. Fertilize trees and clearing the rest of the chopped herbs on erosion-prone areas	
					4. Making erosion control facilities prior to conducting land clearing	
					5. on slope area/ slope > 8%, made terracing and planting fast-growing vegetation types (fast growing species), fibrous and tight/assembly roots	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					6. Provide treatment fertilization and liming to increase the availability of plant nutrients for plant re-vegetation and to increase the carrying capacity of soil fertility and plant growth re-vegetation	
- Sedimentation						
The decrease in sediment load in the water bodies near to the project site	Is the continuous impact of the decline in the rate of erosion	The volume of sediment loads in waterways and local water bodies	On the location of soil and water conservation	prevent / minimize the loads of the increased sedimentation in water bodies	1. Conduct land clearing activities in the summer	During the operation of PT PBJ
					2. Immediately planting the cover crop on soil and water conservation	
					3. Fertilize trees and clearing the rest of the chopped herbs on erosion-prone areas	
					4. Making erosion control facilities prior to conducting land clearing	
					5. Perform road maintenance and erosion control facilities regularly and continuously, especially during the rainy season	
					6. On sloping land / slope > 8%, made terracing and planting fast-growing vegetation types (fast growing species),	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					fibrous and tight/assembly roots	
					7. Provide treatment fertilization and liming to increase the availability of plant nutrients for plant re-vegetation and to increase the carrying capacity of soil fertility and plant growth re-vegetation	
C. OPERATIONAL PHASE						
1. Plant Maintenance						
- Surface Water Quality						
The residue of fertilizers and pesticides applied	The residue of fertilizers and pesticides carried away the flow of water runoff from the plantation area	The content of residue of fertilizers and pesticides in the water bodies along the plantation site	In all the clearing plantation area	To reduce the supply of pollution materials from the residues of fertilizers and pesticides flowing to the water bodies	1. Apply and provide the fertiliser to the crops efficiently and according to schedule planned	During the operation of PT PBJ
					2. Applications of pesticides in pest control and plant diseases should refer to the recommended amount and use materials that are allowed	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					3. For weed control , herbicide application should be a last priority , weed control is preferred in non-chemical treatment	
					4. strict supervision of the field application officers (application of fertilizers and pesticides) must conduct to avoid the deviations application in accordance with the established work procedures	
					5. Apply strict rules banning all farm workers either intentionally or accidentally spilled the fertilizers and pesticides to local water bodies	
					6. Prepare the proper place for the fertilizers and pesticides to shelters from scour flow run up and protected from the rain on the location of the distribution of planting areas	
					7. Establish SOP on preparation and distribution of fertilizer and pesticide applications in the field	
					8. Suspend fertilization and pesticide application during raining time	
					9. Entire trench gardens leading down to the local water bodies should be made settling ponds that serve as the test pond fertilizer and pesticide	

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
					residues are carried by water runoff	
					10. Collect all of the former packing fertilizers and pesticides applied and collected in the shelters prepared	
					11. Provide training to all the workers that involve in fertilizer and pesticide applications with emphasis on the security aspects of the environment	
					12. To reduce the use of chemical fertilizers by replace with organic fertilizers that are derived from plant waste oil and waste plant	
					13. Construct water storage ponds / reservoir to meet the water needs	
2. Harvesting of Fresh Fruit Bunches (FFB)						
- Field						
Creating a business opportunities to the surrounding community	Presence of activities through partnership with community	The proportion of local workers who are employed	Project location	To optimize the positive impact of a component activities through partnership with local entrepreneurs	Provides the opportunity for the local community or individual business units that are located in and around the location of the plantation to participate, especially in FFB harvesting	During the operation of PT PBJ
3. Transportation of Fresh Fruit Bunches (FFB)						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
- Water Quality						
A decline in the quality of ambient air along the roads/ transportation way of FFB	Scattered dust generated by the friction of the wheel truck body surface with plantation roads	Standard quality content of dust in the air of 0.23 mg/m ³ (ambient air quality standards) based on PP. 41 of 1999 on Air Pollution Control	Along the transportation area of fresh fruit bunches (FFB) to the location of demolition	To prevent the degradation of air quality due to the activities	1. The setting speed of the vehicle is limit to a maximum of 20 km / hour, as it passes the settlement area, agricultural activity site and plantation area(where the workers exist)	During the operation of PT PBJ
					2. Perform a hardening compaction and special haul to the road with aggregates, especially the road at plantation area	
					3. Watering the road minimum at least 2 times a day on transit road that pass near the settlement and plantation area especially in hot weather	
- Traffic (Land)						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
Traffic disruption on public roads within the area of the plantation	Repeated crossing of the FFB carrier vehicles	level of the traffic disruption on roads that traversed the transportation	At the location of the plantation way/ path that is used as the public road use/accessibility	To avoid the traffic disruptions during the transportation activities of FFB	1. Socialisation to affected communities about the details planning on the plantation roads network	During the operation of PT PBJ
					2. Implement the traffic rules to all the road users	
					3. Provide the traffic signs along the public roads that are used for the company transportation and vehicles in accordance with applicable regulations of the Department of Transportation	
					4. Give the priority for the public road users	
4. CORPORATE SOCIAL RESPONSIBILITY (CSR)						
- Views and Perception of Local Community						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
Creation of the positive views and perceptions of the community to the oil palm plantation operations of PT. PBJ	Caring attitude and responsibility of company to the corporate social conditions in the existing villages	The percentage of people who support the existence of PT. PBJ	The villages included in the study area	To develop the positive attitudes and perceptions of the communities that will effect for the business continuity of the PT. PBJ	1. The PT. PBJ should design Corporate Social Responsibility program that fits the needs and desires of the community around the estate and align CSR programs with government programs that can actually have positive implications	During the operation of PT PBJ
					2. Immediately carry out consultation with community leaders from the villages in the project area related to the preparation of a Corporate Social Programme (CSR) involving Local Government, represented by the BAPPEDA	
					3. Implement any agreement resulting from the consultation in accordance with the company's ability	
- Human Resources						
An increase in local community education and skills,	development of education and training of the local workforce in the implementati	General education and skill levels	In every unit implementation of CSR programs	To increase the level of public education and specialized skills	1. Immediately implement all the program from the public consultation outcomes	During the operation of PT PBJ

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
	on of CSR activities					
					2. Conduct technical coordination with agencies associated for the program units that will be implemented	
D. POST OPERATION PHASE						
1. Termination of The Employment/PemutusanHubunganKerja (PHK)						
- Field work						
Garden/ plantation workers will loss the jobs	As a result of PHK in the activity rationalization of manpower	Local community lose their jobs as the source of livelihood	At the workplace of PT PBJ/ Plantation area	Field work and effort for the former plantation workers of PT. PBJ	1. The implementation of PHK should be done gradually	At least 2 years prior to the implementation of the rationalization of labour
					2. Provide the early preparation for the worker before implement the PHK such as providing the education and training efforts to manage the garden so that they can survive and obtain the employments	
					3. Provide the compensation amount in accordance with the applicable Labour Regulations	
2. Equipment Demobilisation						
- Traffic (Land)						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
Traffic congestions on roads that are used in equipment mobilization activities	Repetitive crossing of heavy vehicles (trailers)	The level of traffic congestion in the surrounding area	Along the road passes by the equipment demobilization activities	To avoid interference with traffic-control equipment when demobilization activities	1. The timing of the demobilization activities, especially at the time of vehicle traffic decreased frequency / low	During demobilisation process
					2. Provide accessible road signs around the access in and out of the vehicle to the location of the project site	
					3. Priority to advance of roads to public users	
					4. Cooperate with related parties (Department of Transportation) to provide escort to the demobilization process	
- Traffic (Water)						
disruption in the smooth flow of the local sail/journey on the local waters area	Transportation activities of vehicles and carrier to transfer the tools and equipment.	the frequency and intensity of the water traffic movement	In the local water bodies	To avoid interference of traffic on local water bodies when the equipment demobilization activities	1. The demobilization activities should be done gradually	During demobilisation process
					2. Provide enough information when doing demobilization activities during the night time	
3. Land Returns						

Impacts	Source of Impacts	Level of Impacts	Environment Management Plan (UPAYA PENGELOLAAN LINGKUNGAN HIDUP)			
			Location	Objective	Methods	Time
- Behaviour and Perception						
The indicators of the support and rejection level of local community to the plans of returning the public in the oil palm plantation activities of PT. PBJ	Due to informal and formal socialization process	The percentage of people who support the existence of oil palm plantations PT. PBJ	At the location of the land return and PT PBJ management office.	To develop the positive attitudes and perceptions of the communities that will effect for the business continuity of the PT. PBJ	1. Conduct formal and informal socialization for the activities related to the returning of the land	During the operational process
					2. Provide an explanation to the public about the positive and negative impacts that have been felt by the public during the development and activities of oil palm plantation of PT. PBJ	
					3. Cooperation with village officials and relevant technical agencies in conducting land returns	
					4. Accommodate suggestions and aspirations of the local community	

3.2 Summary of Management and Mitigation Plans (SIA)(4b)

Mitigation & management plans to minimise negative for socio economic impacts.

Potential Impacts	Management Objective	Management approaches / Action plan	Timing
Social conflict within local communities and PT. PBJ 2-Kaltim due to different viewpoints towards plantation development, land release and land acquisition.	<ul style="list-style-type: none"> To avoid any conflicts from arise and smooth the process of development project To ensure the process of land acquisition follow the rules of free, prior and consent as well as SOP planned by the company. To strengthening communication and social relationship with local communities 	<ul style="list-style-type: none"> Socialisation process in order to provide the information about the process of land clearing that involved local communities lands Make a deal for the compensation value with local communities and company and avoiding the areas that have potential conflicts Involves all the stakeholders and parties including Administrative institution in land acquisition process 	Prior to land acquisition activities
Jealousy and social conflicts will arise involving land rights and ownership	<ul style="list-style-type: none"> To avoid social conflicts between local communities that can reduce the well-being of the community. To create harmonious communication within local communities continuously 	<ul style="list-style-type: none"> Location maps for plasma planning should be cleared immediately by the company to the community through socialisation process. Company create a transparent MoU with cooperative/ local communities Increase the capacity of the local labour and company policy not to hire or employed underage workforce (SOP) 	Prior to land acquisition and clearing
Local community experience shortage of clean water especially during the dry season; <ul style="list-style-type: none"> Supply of clean water for local communities is reduced, contaminated, due to the limited reservoir/ tanks provide by the company. the water supply provided by the company always delayed 	To improve the water quality supply for the local communities.	<ul style="list-style-type: none"> Personnel training for clean water management was done by PT. PBJ2-Kaltim in handling clean water supply to local community PT. PBJ 2-Kaltim should increase the water tanks up to at least three tanks so that enough water can be supply to local communities. 	Continuous

Potential Impacts	Management Objective	Management approaches / Action plan	Timing
The source of livelihood derived from the forest reduces and limited. (vegetables, protein, medicine, and woods)	To fulfill the basic requirement of local communities and ensure that the source of the needs will be available continuously.	<ul style="list-style-type: none"> Establish the management and monitoring of HCV 5 by encouraging the PKK group on their production. 	Continuous
Traffic congestion and disruption of road (presence of big trucks and trailer)	To avoid the traffic congestion especially during the mobilization of equipment	<ul style="list-style-type: none"> Socialisation to local communities regarding to the transportation and mobilization process of the equipment during the development process, The schedule and frequency of the company mobilization and transportation should be done during the normal hours and avoid the process during peak hours Provide the road sign around the entrance and exit of the project site to accommodate people. The maximum speed limit for the vehicles is only 20km/h especially in the residential area. Give the priority to the public transportation and other road users Cooperation with the related parties especially Department of Transportation to monitor and control the mobilisation process Prepare the rescue teams to anticipate if any road accidents happens (emergency rescue teams) 	During the mobilization process and activities to PT. PBJ2-Kaltim
The water quality especially river around the project site is reduced.	To minimise the reduction of water quality and pollution of water body within the area to ensure that the supply of clean potable water is maintained.	<ul style="list-style-type: none"> Development of road network in the plantation should be gradually planned according to the needs of opening to minimise the erosion Make a trench on both side of the road Make a sediment trap at each moats leading to the surface of the water bodies. Regular maintenance and intensive treatment for the sediments traps and moats Replanting all the open lands with cover crops. Maintenance of coating and resurfacing the road layer with a 	Early development phase and continuous

Potential Impacts	Management Objective	Management approaches / Action plan	Timing
		mixture of coral and sand (quarry)	
<ul style="list-style-type: none"> - CSR create a positive perceptions among the local communities towards the company - Changes in daily lifestyle and basic requirements of local communities 	To develop and expand the positive perceptions and attitudes of local communities which indicates the continuous support to the company	<ul style="list-style-type: none"> • PT. PBJ 2-Kaltim should design and establish the community empowerment programs to fulfill the basic needs of the local communities around the estate as well as aligning with government programs so that CSR can really have positive and effective implication implications for the local community development. • Provide the education opportunities and improve the facilities by assisting local communities to continue their education. • Increasing the quality of public health and environment by collaboration with Department of Health especially to develop MCK/village water system for local communities. • Increased the religious value in community by providing the support and funds for the religious ceremony and house of worship support. 	Continuously
Changes in local communities economic that result in alternative incomes and livelihood alternatives.	To provide the better income through oil palm production that involves local communities participation	<ul style="list-style-type: none"> • Provide and assist in the planning of income through regular management of Plasma income/ accounts. • Reduce the land clearing in the area that is still used by the local communities to fulfill their basic needs. • Increase the capacity building by improving the quality and quantity of production in the company • Increase the capacity of the financial management of family through social investment for local communities. • Opening new business opportunities and open up the employment opportunities for local communities according to the needs; employment recruitment socialise; conduct recruitment of local worker as needed. 	Prior to the production phase and continuously

To manage the impacts and social issues mentioned above, the recommendation steps or activities that need to be done are:

1. Company should establish and clarify the plasma management model immediately and the socialisation process needs to be done for all the villages involved in the management of plasma (DesaKembangJanggut, Kelekat, Long BelehHaloqdanMuai).
2. PT. PBJ 2-Kaltim needs to develop policies and strategies for Social Management , which is the foundation and basic framework in developing programs of social management and smallholdings management or issues related to the social aspects (clear system of land release/land compensation, etc..).
3. Establish the Social Management Framework plan forthe company, which involves social mapping of local communities and village around the PT. PBJ 2-Kaltim. This process should be conducted comprehensively.
4. Conduct the Assessment of Needs for local communities and facilitate the planning process for every village. This entire process should be conducted in a participatory way (especially for the Plasma management planning).
5. Completing the basic social infrastructures for the community (education, health, clean water, electricity and etc.) in order to improve the quality of life
6. Initiated the development of local institutions (for villages that have not formed cooperatives) and improve the management capacity of local institutions/cooperatives.
7. Need to be more proactive and intensive in open communication, information, and visit the surrounding villages and be transparent with local people and community leaders. This effort does not have to be formal, and often more effective when done informally. This step is essential to build trust with the local community.

3.3 Summary of Management and Mitigation Plans (HCV) (4c)

Table 3.1: Survey findings of HCV Present and Plan for Monitoring and Data Review

HCV	Survey findings	Management recommendations
HCV 1.1	There is no Protected Area in or adjacent to the area of interest	Not applicable (NA)
HCV 1.2	At least four CR species of trees <i>Dipterocarpus cornutus</i> , <i>D. hasseltii</i> , <i>D. tempehes</i> and <i>Shorea smithiana</i> are found in the	Initiate studies to assess presence, location and population of selected

	estate. These require specific species/ individual management conservation management action.	ERT species and start conservation efforts
HCV 1.3	Several species of plants and animals that are protected under Indonesian laws are also found in the site and these include a number of Dipterocarps and ulin (<i>Eusideroxylonzwageri</i>) as well as the Orangutan, Mueller's gibbon, white-fronted leaf monkey, Bearded Pig, and Sun bear and probably the Marble cat and/or the Borneo Bay Cat and the lesser adjutant stork and the Short-toed coucal. These also require appropriate management action for the conservation of their habitats.	Establish pockets of appropriate habitats and corridors to link them up; especially river buffers which may need to be widened
HCV 1.4	While not directly surveyed, it is likely that the natural areas with forests and water bodies could be used for nesting and breeding by fishes, amphibians, reptiles and birds. This conservation value can be incorporated into 1.3 above	See 1.3 above
HCV 2.1	There is a Production Forest to the north of the plasma site but it is highly degraded and identified for coal mining. Its latest status need to be confirmed and appropriate action may be necessary. If still confirmed as a legally enacted Production Forests, the area is HCV 2.1 (<i>The area is however outside the boundary but is still contiguous with the HCV areas identified</i>)	Although a buffer would be appropriate, the status of the land and condition of the forest does not warrant establishing the buffer.
HCV 2.2	Much of the area of interest is disturbed; the riverine forests can technically be an interphase of the river ecosystem and the relatively dry lowland alluvial dipterocarp forest.	The riverine areas should be protected by establishment of the river buffer which function as a corridor and should not be planted but be conserved and restored/ rehabilitated.
HCV 2.3	Although much of the area is disturbed there may be representative populations still existing in adjacent production forests and less disturbed areas of forests; this may require further studies - see HCV 2.1 above;	Initiate studies/ census on selected species
HCV 3	There is Production Forests to the north of the plasma site but it is highly degraded and presumed to have lost its conservation value. The riverine buffers which are intact are thus considered to be a rare and endangered ecosystem. Conservation value can be incorporated with 2.2 above	as 2.2 above
HCV 4.1	Not directly assessed as source of water for consumption; but rivers and vegetated riverine areas probably may attenuate water flow during floods and reduce erosion	Ensure river buffers are established and maintained and restored where necessary
HCV 4.2	Vegetated riverine buffers to reduce soil erosion into	as 4.1 above

	streams and rivers.	
HCV 4.3	Although not assessed in the survey, vegetated riverine buffers may function as natural barriers to fire	as 4.1 above
HCV 5	No sites identified within proposed plasma area. Some HCV 5 areas are known outside the site.	NA
HCV 6	No sites identified within proposed plasma area. Some HCV 5 areas are known outside the site.	NA

Management and monitoring plans to enhance or maintain conservation values of identified HCV Area

HCV present	Management objective	Enabling actions	Monitoring activities
HCV 1.3	Minimise the site threats to threatened species - orangutan and marbled cat.	<ol style="list-style-type: none"> 1) Socialisation with local community to minimise impacts from their activities. 2) Secure assistance of acknowledged wildlife experts for management recommendations and monitoring. 3) Establish communications channels with wildlife management agencies & authorities and include in co-management body with local experts and local community. 	<ol style="list-style-type: none"> 1) Routine patrols note presence/ absence of target species; incidences; and threats to habitat. 2) Periodic survey by local stakeholder experts. 3) Periodic review by co-management committee on state of habitat and status of target species to validate HCV status. Report published for general stakeholders.
HCV 2.2	Maintain connection between dry forest to the north, and remaining patches and conservation area to the south.	<ol style="list-style-type: none"> 1) Secure assistance of acknowledged wildlife/ forestry experts for management recommendations and monitoring. 2) establish communications with upstream and downstream stakeholders 	<ol style="list-style-type: none"> 1) Routine patrols note local incidences and threatening activities to ecosystem. 2) Periodic survey by local stakeholder experts. 3) Periodic review by co-management committee on state of habitat and status of target species to validate HCV status. Report published for general stakeholders.
HCV 2.2	Minimise threats and activities that degrade connectivity between conservation areas to the south and landscape to the north.	<ol style="list-style-type: none"> 1) Secure assistance of acknowledged wildlife/ forestry experts for management recommendations and monitoring. 2) establish communications with upstream and downstream stakeholders 3) Keep regional wildlife authorities informed. 	<ol style="list-style-type: none"> 1) Routine patrols to note local incidences and activities that threaten the ecosystem. 2) Periodic survey by local stakeholder experts on status as biological corridor. 3) Periodic review by co-management committee on state of habitat and status of target species to validate HCV status. Report published for general stakeholders.
HCV2.3	Maintain habitat and connectivity for naturally occurring species	as for HCV 2.2 above	<ol style="list-style-type: none"> 1) as part of periodic review examine trends for species presence, and validate HCV status for the site. Report published for general stakeholders.
HCV 2.3	Minimise threats to local populations of	1) as for HCV 2.2 above to secure local expert opinion and local community support	<ol style="list-style-type: none"> 1) as part of periodic review examine trends for species presence, and validate HCV status for the

HCV present	Management objective	Enabling actions	Monitoring activities
	naturally occurring species.		site. Report published for general stakeholders.
HCV3	Minimise threats to quality of local ecosystem - wetland forest and river.	<ol style="list-style-type: none"> 1) Socialisation with local community to minimise impacts from their activities. 2) Secure assistance of acknowledged wildlife/ forestry experts for management recommendations and monitoring. 	<ol style="list-style-type: none"> 1) Routine patrols note local incidences and threatening activities to ecosystem. 2) Periodic survey by local stakeholder experts. 3) Periodic review by co-management committee on state of local ecosystem to validate HCV status. Report published for general stakeholders.
HCV4.2	Attenuate surface water flow and quality, minimise soil erosion.	<ol style="list-style-type: none"> 1) Ensure contractors and their staff are informed of HCV proscriptions, and penalties for infringement put in all contract documents. 	<ol style="list-style-type: none"> 1) General monitoring and recording of incidences of misapplication 2) Undertake scheduled water quality monitoring on in-coming and out-flowing boundary. 3) Assess trends in water quality reports for annual review. Revise SOP and/or estate practices as needed to meet objectives.
HCV4.2	Attenuate surface water flow, minimise soil erosion.	<ol style="list-style-type: none"> 1) Socialisation with local community to minimise impacts from their activities. 2) Establishment of co-management body with estate and desa representatives to empower responsibility. 3) Develop strategies with local community to minimise site disturbing activities. 4) With stakeholders, ensure mining activity is adequately regulated in region. 	<ol style="list-style-type: none"> 1) Record of meetings and/or discussions with local community on site issues. 2) Scheduled patrols and inspection observations recorded. 3) Review SOP and management activity at annual co-management meetings for areas of improvement and omissions, revise and retrain as needed
HCV4.2	Maintain capacity to store ground water in catchment and minimise soil erosion.	<ol style="list-style-type: none"> 1) Ensure contractors and their staff are informed of HCV proscriptions, and penalties for infringement put in all contract documents. 	<ol style="list-style-type: none"> 1) general monitoring and recording of incidences of misapplication 2) Undertake scheduled water quality monitoring on in-coming and out-flowing boundary. 3) Assess trends in water quality reports for annual review. Revise SOP and/or estate practices as needed to meet objectives.

HCV present	Management objective	Enabling actions	Monitoring activities
HCV4.3	Protect function as a fire barrier	1) develop collective strategies with stakeholders to minimise fire risk	1) Monitor and record fire threat and incidences. 2) Annual review of SOP for omissions and areas of improvement, revise and retrain as needed. 3) Reports from scheduled patrols on incidences and post incidence recovery.

Management and mitigation plans for threats to HCV areas

The HCV sites identified in the PT. PBJ2-Kaltim plasma area would require appropriate management to ensure that the value is either maintained or enhanced. Historical clearing in the area is rampant and the local community has seen the area as an opportunity to expand their holdings. In view of the pressures on the site, a matrix has been developed providing guidance to management on site characteristics, management objective, enabling action and monitoring to ensure HCV intactness.

The area assessed did not have any HCV 5 or 6 areas within it. The findings were put through a public consultation for final confirmation. Public consultation was conducted to provide input as well as management actions and monitoring programs. Stakeholder mapping and analysis for measuring the level of interest and capacity of each different groups that aim to formulate a plan of action with appropriate interventions and program management monitoring HCV 5 and 6 for handling existing pressures and threats, overcome institutional gaps and identify potential conflicts and other social problems. The exercise however identified HCV5 and 6 sites outside the area which does not fall with the purview of this exercise.

In general there is no HCV 5-6 identified on areas planned for developing plasma where the area is shifting cultivation and community's palm oil plantation of KembangJanggut and Kelekat village. In the Muai and Long BelehHaloq village and Long BelehHaloqModang village most of the communities already planted oil palm and they are ready to harvest. Location that is plan for the plasma also has the potential of coal with mining permit and some of them already operate such as, PT. RMB, PT. Serangkai Jaya and PT. Indo. In Muai, from the scheme of 20% plasma mostly owned by outside people of the Muai village and the local communities just manage it. In addition, the area that should be conserved such as river buffer has been cleared by the communities for palm oil plantation.

Communities around PT.PBJ 2 are no more related with HCV 6 values, majority communities had embraced Islam. Some traditional ritual still performed by the communities on important event such as related with religious feast day or traditional customary ceremony. *Hudog* (mask) ceremony performed during important time such as; *BukaLahan-Ladang* initiation/forest clearing (*La Nos*), *Nugal*/planting paddy seed (*NatokAdeat*), *Panen*/Harvesting (MekinNuan) and *Syukuran/hajatan* (thanksgiving celebration). Nowadays, communities start leave the others traditional ceremony with reason most of the communities already embrace Islam and no more traditional leader that can lead process of traditional ritual.

Follow-up of these efforts should include the monitoring of the vegetation and site recovery and the monitoring of the wildlife utilising the areas as well as the prevention of encroachment for land clearing or hunting. Any initiative made by the project proponents to invest in HCV management for these species in their current locations will need the endorsement and constructive support by these communities. Without such support, current available the habitat quality for these species will continue to decline below a level that could support a viable population. Some of the actions will involve active socializing with the local communities.

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To support the objectives and to maintain conservation values of identified HCV areas, the following are recommended.

- A commitment by the project proponents to maintain forest areas over which they have legal and management control,
- A commitment should be made by the local community to endorse, respect and support the land use planning and management activities of the project proponents
- An extension in to the project area of the 'green' spaces around the riverine areas be made to connect with those found in the adjacent estates of Lestari, Cakra and Damai,
- Secure the technical assistance and support of a knowledgeable local Indonesian entity to provide management planning and monitoring of the resident orangutan population,
- To establish within the company permanent staff positions to execute these expert plans and management recommendations, and
- To mark the locations of HCV sites and appropriate buffers for their effective protection/ conservation.
- To monitor the HCV areas periodically to ensure the identified values are maintained and the integrity of the areas sustained.

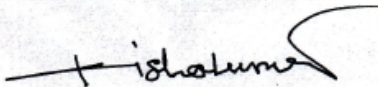
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5. Internal Responsibility

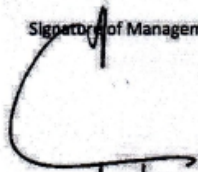
5. Internal responsibility

We hereby sign off on the above Summary Report. The above may be amended and clarified for improvement during the development of the plantation but it will remain in accordance with RSPO Standards and Principles.

Signature of Assessor:



Signature of Management Representative:



Date: 6/06/14.

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