



Report number: 813182RSPONPPCUCRPT -2011-01-AS

RSPO New Planting Procedures Assessment Report

PUBLIC SUMMARY

PT Agrowiratama

Sambas District, West Kalimantan Province

This public summary has been prepared in accordance with RSPO requirements and the information included is the result of a full RSPO assessment of the Mills and supply base as included in the scope of the certificate.

Report prepared by: Senniah Appalasamy (Lead assessor).

Control Union (Indonesia)

Jl Kramat 3A,
Cilandak Timur
Jakarta Selatan 12560
Phone: 062-21-7884 2016

winaryo@controlunion.com

Control Union (Malaysia) S/B

Persiaran Raja Muda Musa,
Off Jalan Sg Berith,
Teluk Gadong, 41100, Klang,
Selangor. Malaysia.
Phone 03-3377 1600 / 1700

mduraisamy@controlunion.com

Control Union Certifications. (Head office)

Meeuwenlaan 4-6,
P.O. Box 161.
8000 AD Zwolle.
The Netherlands.

certification@controlunion.com

Phone: 0031 38436 0100

Control Union Certifications is a member of the Control Union World Group - an international inspection and certification body. CU performs assessments and certification in many agricultural based fields such as FSC, RSPO, and Organic production, Sustainable Textile Production, Organic Exchange, Eurepgap, HACCP, BRC, GMP and GTP.

CU is accredited by the Dutch Council of Accreditation (RVA) on the European quality standard EN 45011 for the inspection and certification of CU Organic program (according to the EU regulation 2092/91) and EUREPGAP program. When requested a copy of the accreditation certificate can be obtained from CU.

www.controlunion.com



Report number: 813182RSPONPPCUCRPT -2011-01-AS

<u>Contents</u>	Page No
1. <u>Scope of the Assessment</u>	3
1.1 Guidance Document used.....	3
1.2 Assessment type.....	3
1.3 Location maps.....	3
1.3.1 Map showing the location of the proposed new planting and neighbouring entity.....	3
1.3.2 Location Map of proposed new planting of PT Agrowiratama with GPS Coordinate.....	4
1.4 Location address of the proposed new planting.....	4
1.5 Description of the proposed new planting area.....	5
1.6 PT Agrowiratama Contact person.....	5
1.7 Certification body contact details.....	5
2. <u>Assessment Process</u>	5
2.1 Certification body.....	5
2.2 Qualifications of the assessment team.....	6
2.2.1 Qualifications of the lead assessor.....	6
2.2.2 Qualifications of the assessment team.....	7
2.3 Assessment methodology.....	7
2.3.1 General overview.....	7
2.3.2 Assessment agenda.....	7
3. <u>Assessment Findings</u>	8
3.1 Lead assessor's verification statement.....	8
3.2 Summary of the findings by criteria.....	8
4. <u>Formal signing off of the Internal Responsibility</u>	20
4.1 Signing off by the assessor of the certification body.....	20
4.2 Acknowledgement of the internal responsibility by PT Agrowiratama.....	20
Abbreviation.....	21



Report number: 813182RSPONPPCUCRPT -2011-01-AS

1. SCOPE OF THE ASSESSMENT.

1.1 Guidance Document used.

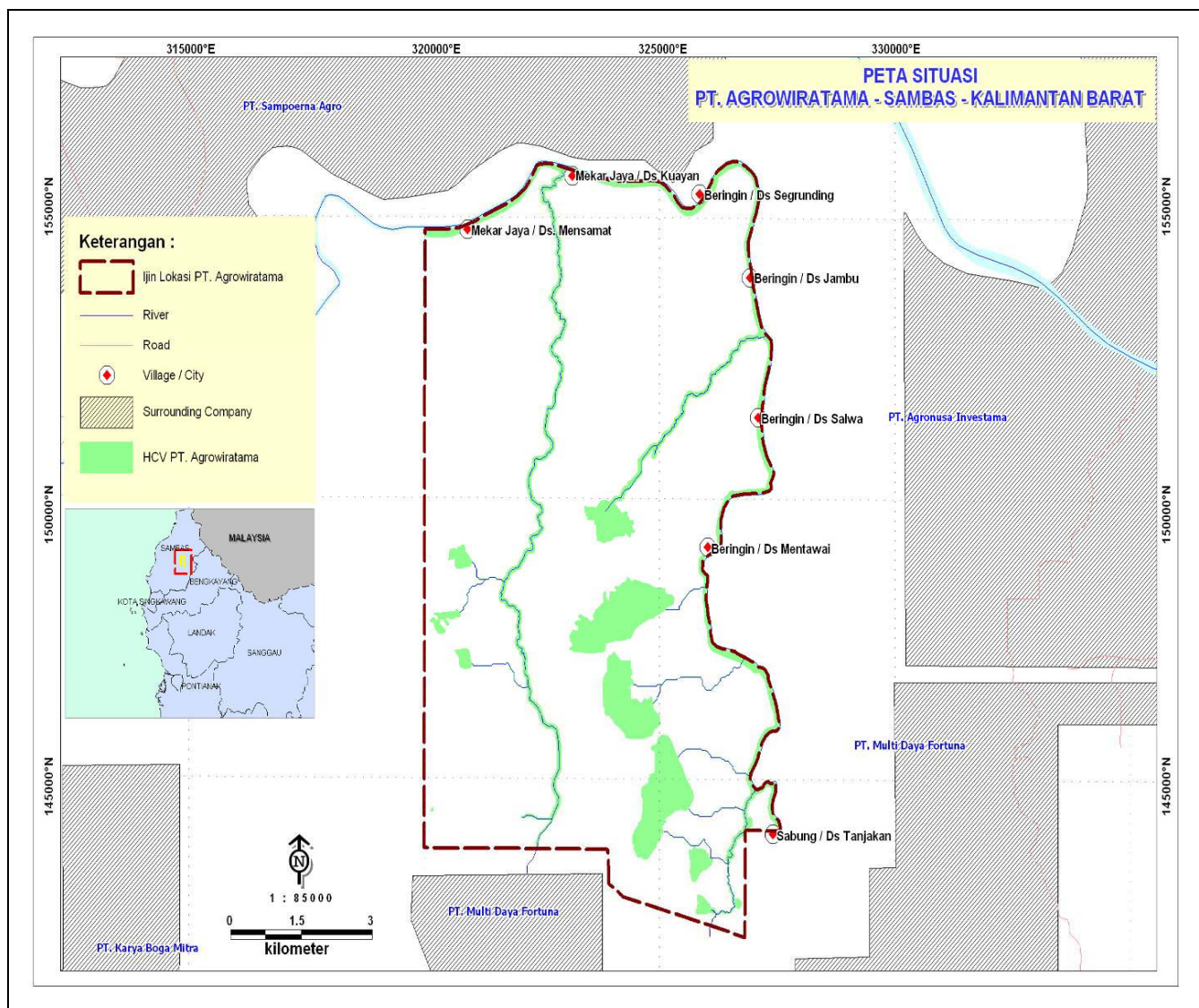
The proposed new planting of PT Agrowiratama was assessed for compliance against the RSPO Procedures for New Oil Palm Planting (RSPO NPP) using the Guidance Document approved in September 2009 by the RSPO Executive Board for implementation from 1st January 2010.

1.2 Assessment type.

Assessment of legal documents, independent Social Environmental Impact Assessment Reports (SIA and AMDAL), High Conservation Value Assessment Report (HCV) and management and implementation plans of the proposed new planting.

1.3 Location maps.

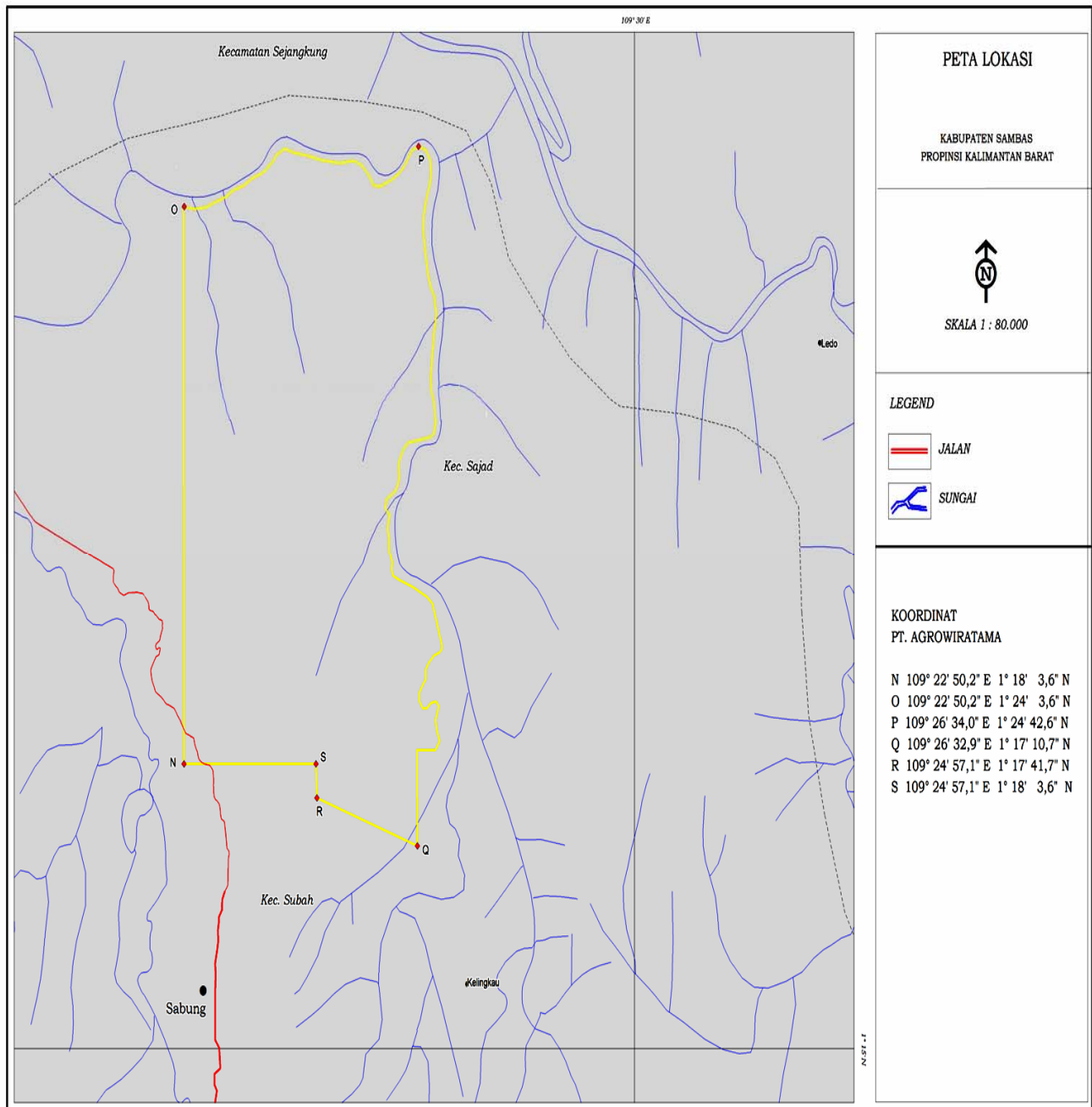
1.3.1 Map showing the location of the proposed new planting and neighbouring entity.





Report number: 813182RSPONPPCUCRPT -2011-01-AS

1.3.2 Location Map of proposed new planting of PT Agrowiratama with GPS Coordinates



1.4 Location address of the proposed new planting.

Name of the company	Location address	GPS reference	
		Longitude	Latitude
PT Agrowiratama	Sajad and Subah Sub District, Sambas District, West Kalimantan Province, Indonesia.	As per in 1.3.2 above	



Report number: 813182RSPONPPCUCRPT -2011-01-AS

1.5 Description of the proposed new planting area.

The proposed New Planting area is located at Sub District of Subah and Sajad, Sambas District, West Kalimantan, Indonesia. Total area of 9,000 hectare was allocated with location permit (Izin Lokasi No. 425 Year 2009 dated 31 December 2009) to PT Agrowiratama. The new planting area of PT Agrowiratama is located in area of Other Usage Area (Areal Penggunaan Lain – APL) as per decision letter of Agriculture and Forestry Ministry No. 259/KPTS-II/2000. The boundaries and GPS reference are as per 1.3.2 above.

1.6 PT Agrowiratama Contact person.

Principle Contact person:	Dr. Gan Lian Tiong
Business address:	Spring Tower, 06-61 Jl. K.L. Yos Sudarso, Tanjung Mulia, Medan Deli, Medan, Sumatera Utara - 20241
Group name if applicable:	PT Agrowiratama
Office telephone:	+62 61 661 9235
Mobile telephone:	62 61 811 632 831
Fax:	+62 61 661 9502
e-mail:	dr_ganlt@yahoo.com , liantiong.gan@musimmas.com
Web site:	-

1.7 Certification body contact details.

Name of Client:	PT Agrowiratama
Client number:	CU 813182
Final Report Date:	6 th January 2011
Issued by	Control Union Certifications
Address	Meeuwenlaan 4-6 8025 BS Zwolle
Telephone	0031 (0) 38 426 0100
Fax	0031 (0) 38 423 7040
Email	certification@controlunion.com
Website	www.controlunion.com/certification
Lead Auditor	Senniah Appalasy
Signature	

2. ASSESSMENT PROCESS.

2.1 Certification Body.

Control Union Certifications is a member of the Control Union World Group - an international inspection and certification body. CU performs assessments and certification in many agricultural based fields such as FSC, RSPO, and Organic production, Sustainable Textile Production, Organic Exchange, Eurepgap, HACCP, BRC, GMP and GTP.

CU is accredited by the Dutch Council of Accreditation (RVA) on the European quality standard EN 45011 for the inspection and certification of CU Organic program (according to the EU regulation 2092/91) and EUREPGAP program. When requested a copy of the accreditation certificate can be obtained from CU. CUC is also accredited by the RSPO.

2.2 Qualifications of the assessment team.

2.2.1 Qualifications of the lead assessor. Senniah Appalasy

REQUIREMENT	QUALIFICATIONS	Compliance
A minimum of post high school (post secondary school) training in either agriculture/forestry, environmental	Post graduate qualification in human resource management with more than 10 years working experience in plantation.	Yes



Report number: 813182RSPONPPCUCRPT -2011-01-AS

science or social sciences;		
At least 5 years professional experience in area of work relevant to the assessment (e.g., palm oil management; agriculture/forestry; ecology; social science);	More than 10 years working experience in plantation. Involved in RSPO auditing since April 2009. Fully trained in similar agriculture certification programmes such as RSPO SCCS, Global Gap, ISCC and GMP.	Yes
Training in the practical application of the RSPO criteria, and RSPO certification systems;	Involved in RSPO assessment since April 2009. Member of CUC RSPO audit team. Involved in audits conducted in Malaysia and Indonesia.	Yes
Successfully completion of an ISO 9000:19011 lead assessors course;	Completed ISO 9001:2008 lead auditor course in September 2009.	Yes
A supervised period of training in practical assessment against the RSPO criteria or similar sustainability standards, with a minimum of 15 days assessment experience and at least 3 assessments at different organisations.	Member of CUC RSPO audit team since April 2009. Involved in audits conducted in Malaysia and Indonesia since April 2009 in 8 different companies in Malaysia and Indonesia	Yes

2.2.2 Qualifications of assessment team.			
RSPO REQUIREMENT	ASSESSOR	QUALIFICATIONS	Compliance
Fluent in main local languages and English.	Senniah Appalasamy	Able to understand local language and English.	Yes
	Haeruddin	Able to understand local language and English.	Yes
Field working experience in the palm oil sector, or a demonstrable equivalent.	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes
	Haerudin	FSC, Global Gap and Organic farming auditing experience. Involve in RSPO auditing since November 2010.	Yes
	Simon Selvaraj	Working experience in palm oil plantation. Involve in RSPO auditing since November 2010.	Yes
Good agricultural practices (GAP), integrated pest management (IPM), pesticide and fertilizer use.	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes
	Haerudin	FSC, Global Gap and Organic farming auditing experience.	Yes
	Simon Selvaraj	Working experience in palm oil plantation. Involve in RSPO auditing since November 2010.	Yes
Health and Safety assessment on the farm and in processing facilities. (For example OHSAS 18001 or occupational. Health and safety assurance system).	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes
	Haerudin	FSC, Global Gap and Organic farming auditing experience. Involve in RSPO auditing since November 2010	Yes
Workers welfare issues and social assessment experience. (For example with SA8000 or related social or ethical accountability codes).	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes
	Haerudin	FSC, Global Gap and Organic farming auditing experience. Involve in RSPO auditing since November 2010	Yes
Environmental and ecological assessment. (For example experience with organic	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes

Report number: 813182RSPONPPCUCRPT -2011-01-AS

agriculture, ISO 14001 or environmental management systems).	Haerudin	FSC, Global Gap and Organic farming auditing experience. Involve in RSPO auditing since November 2010	Yes
Economic issues.	Senniah Appalasamy	Working experience in palm oil plantation. Involved in RSPO audits since April 2009.	Yes
	Haerudin	FSC, Global Gap and Organic farming auditing experience. Involve in RSPO auditing since November 2010	Yes

2.3 Assessment methodology.

2.3.1 General overview.

The assessment was carried out in conformity with the procedures as laid down in the RSPO Procedures for New Oil Palm Planting (RSPO NPP) using the Guidance Document approved in September 2009 by the RSPO Executive Board. During the assessment the qualified CUC assessors used the RSPO NPP and recorded their findings.

It was possible to carry out both pre verification review and head office document assessments of all relevant data and documents within the time frame without compromising the integrity of the assessments in anyway.

The company opted for a document audit. Control Union Certifications auditors conducted pre verification review of the relevant RSPO NPP documents and verified all the related documents since 29th November 2010 – 4th January 2011. Three Control Union auditors were with the management team of PT Agrowiratama at their head office in Medan on 5th – 6th January to verify further and finalise the findings and present the final report.

2.4 Assessment agenda.

Date	Location	Agenda
29 th November 2010 – 4 th January 2011	CUC office	Pre verification review of the Social Impact Assessment (SIA) Report, High Conservation Value (HCV) Report, AMDAL and Management plans.
17 th – 18 th December 2010	Jakarta	Discussion with Management Contact person : Dr. Gan Lian Tiong
5 th – 6 th January 2011	Medan	Opening meeting. Presentation by Dr. Gan Lian Tiong Assessment agenda discussion.
		Inspect document and finalise the findings of the pre verification review and further discussion and verification conducted at the PT Agrowiratama head office, Medan.
		<ul style="list-style-type: none"> Closing meeting. Chaired by the assessment team leader. Welcome and introduction by the team leader. Presentation of findings by the assessment team. Questions and answers. Final summary by team leader.
Number of assessors participating: 3 Number of days spent for the assessment : Pre verification review 29 th November – 4 th January 2011 Discussion with contact person: 2 days Final Document audit and closing meeting: 2 days Total number of person days used for the assessment: 4 days plus pre verification review.		



Report number: 813182RSPONPPCUCRPT -2011-01-AS

3. ASSESSMENT FINDINGS.

3.1 Lead assessor's verification statement:

The social and environmental assessments were detail, comprehensive and professionally carried out. The management plan has included the findings of the SEIA (AMDAL), HCV and SIA assessments by consultants accredited and approved by the RSPO (and for AMDAL, approved by the government). PT Agrowiratama has adhered to the RSPO New Planting Procedures and has documented the assessments and plans according to the RSPO templates issued in May, 2010.

Control Union Certifications auditors conducted desk study and verified all the related documents since 29th November 2010. The company opted for a document audit. Three Control Union auditors were with the management team of PT Agrowiratama at their head office in Medan on 5th – 6th January to finalise the findings of the pre-verification review and have further discussion and verification conducted. It is the opinion of the Control Union Certifications auditors that PT Agrowiratama has complied with the RSPO New Planting Procedures enforced on 1st January, 2010. Control Union Certifications confirmed that the assessment and plan are comprehensive, professional and compliant of RSPO principles, criteria and indicators.

Signed on behalf of Control Union Certifications

.....
Mr Senniah Appalasamy
Lead Auditor
Date: 6th January, 2011

3.2 Summary of the findings:

3.2.1 Executive Summary

PT Agrowiratama is situated in Sub district of Subah and Sajad, Sambas District, West Kalimantan Province. PT Agrowiratama is adhering to adopt sustainable palm oil practices based on the RSPO New Planting Procedures which was approved in September 2009 by the RSPO Executive Board for implementation from 1st January 2010. PT Agrowiratama is ready to implement environmental and social management through the adoption of High Conservation Value (HCV) and Social Impact Assessment (SIA) based on the findings and recommendations of the Social Environment Impact Assessment (SEIA / AMDAL) and High Conservation Value Assessment by RSPO accredited assessors. The required legal documents, Consent License (Izin Prinsip), Location Permits (Izin Lokasi), Social Environment Impact Assessment (AMDAL), SIA and HCV are available and checked during this document assessment. The HCV and SIA analysis were conducted in June 2010 by RSPO Accredited Assessors from Aksenta and the Social Environment Impact Assessment (AMDAL) was approved by the Regent of Sambas (Bupati Sambas) on 12 October 2010 (the Act of the Regent of Sambas No. 269/2010).

No primary forest was found within the legal boundary of PT Agrowiratama in Aksenta's HCV assessment. The soil type based on the Report of Semi Detail Soil Survey and Palm Oil Suitability Assessment of PT Agrowiratama Sambas 2010 by the consultant (JH – Agriculture Service) concluded that the dominant soil types are mineral soil (88 %), sandy soil (9 %), and peat soil (3 %).

Three types of HCVs were identified by Aksenta, i.e. HCV 1, HCV 4, and HCV 6 within the legal boundary of PT Agrowiratama, with the total area of 982.4 Ha (10.9% of the total permitted areas). The important elements for HCV 1 are the existence of population and tracks of endangered species such as Müller's Bornean Gibbon (*Hylobates muelleri*), Giant River Turtle (*Batagur baska*), Sarawak



Report number: 813182RSPONPPCUCRPT -2011-01-AS

Surili (*Presbytis chrysomelas*), Sunburst Turtle (*Heosemys spinosa*), and Sunda Pangolin (*Manis javanica*). The important elements for HCV 4 are related to the potential damage from erosion, the springs, and river riparian and the important elements for HCV 6 are related to the traditional and sacred graveyards.

The SIA assessment by Aksenta highlighted that, in general, the existence of PT Agrowiratama has a significant social impact to the basic requirement to the social sustainability of local community. The impact of the company presence with its plantation development plan towards social sustainability is discussed in the Summary of Assessment Findings for SEI Assessment. Those findings have defined how the company's business management influences the key issues in every component of the social sustainability of local community.

3.2.2 Scope of SEIA and HCV Assessment

a) General Data of the Company

Company Name	:	PT Agrowiratama
Deed of Incorporation	:	Notary Mimimn Rusli, S.H. No. 30 dated on 10 July 2008
Capital Status	:	PMDN (Penanaman Modal Dalam Negeri) – Domestic Investment
Taxpayer Notification Number	:	01.327.729.8-123.000
Company Address	:	Spring Tower, 06-61 Jl. K.L. Yos Sudarso, Tanjung Mulia, Medan Deli, Medan Sumatera Utara - 20241
Type of business	:	Oil Palm Plantation and Processing
Status of business land	:	Location Permit (Izin Lokasi) (No. 425 Tahun 2009 dated 31 December 2009) AMDAL (SEIA) (No. 269 Tahun 2010 dated 12 October 2010) Izin Usaha Perkebunan (Plantation Development Permit (No. 304 Tahun 2010 Dated 20 December 2010)
Location Size	:	± 9000 Ha
Contact person	:	Dr. Gan Lian Tiong
Geographical Location	:	See 1.3.1 and 1.3.2 above.
Region boundaries	:	North : PT Sampurna Bio Energi South : PT Multi Daya Fortuna, West : Kecamatan Sambas (Sub-District) Kecamatan Sejangkung East : (Sub-District)

The scope of Social and Environment Impact Assessment of PT Agrowiratama covers the local social entities within the Permitted Location (Izin Lokasi) area. Thus, the High Conservation Value assessment covers the permitted plantation area. It is also expanded into villages and other areas which considerably important to the proposed surrounding plantation area.

b) Legal Documents

The permits that have been obtained by the company at the time of the HCV assessments and SIA carried out in June 2010 are Consent License (Izin Prinsip), Location Permits (Izin Lokasi), Social Environment Impact Assessment (AMDAL) base line certificate, and the Plantation Operational License (Izin Usaha Perusahaan). The followings are the list of the licenses and recommendations at the time of the assessment.



Report number: 813182RSPONPPCUCRPT -2011-01-AS

Table 1. Types of permits and recommendations of PT Agrowiratama.

No.	Licenses and recommendations	Issued by	Number and date	Note
1.	Consent License/ recommendation on the location for PT Agrowiratama	The Act of the Regent of Sambas Sub-District (Bupati Kabupaten Sambas) in Kalimantan Barat	No. 582/76/BPMPPT-3 Date: 9 June 2009	± 9000 Ha
2.	Location Permit for PT Agrowiratama	The Act of the Regent of Sambas Sub-District (Bupati Kabupaten Sambas) in West Kalimantan.	No. 425/2009 Date: 31 December 2009	± 9000 Ha
3.	AMDAL (The decree of Komisi Penilai AMDAL Kabupaten Sambas) – Official Evaluation Committee	Approved by the Head of Badan Lingkungan Hidup Kabupaten Sambas (the local office for environment assessment and surveillance)	No. 269 Year 2010 dated 12 October 2010	Approved
4.	Plantation Operational License (Izin Usaha Perkebunan)	Approved by the Head of Sambas District (Bupati).	No. 304 Year 2010 Dated 20 December 2010	± 6,880 Ha and for Palm Oil Mill with capacity of 45mt/hr.

c) Area and time-plan for new plantings

The proposed new planting area by PT Agrowiratama is within the location permit (Izin Lokasi) which have been agreed by the owners of the land (Report on Process of FPIC – Free Prior Informed Consent of PT Agrowiratama) and the area does not contain forests nor any high conservation values. In accordance with the operational management data of PT Agrowiratama, the operation will commence in year 2011 with total estimated planting area of about 5,400 ha, which consists of about 4,320 ha of nucleus (*inti*) planting and about 1,080 ha of smallholder (*kemitraan*) scheme.

3.2.3 Assessment Process and Procedures

SEIA and HCV Assessment

Assessors and their credentials:

1. The social impact assessment of PT. Agrowiratama was carried out by an independent consultant from Aksenta which is located at Jl. Gandaria VIII/10, Kebayoran Baru, Jakarta 12130; Telephone/fax: +62 21 739-6518, E-mail: aksenta@aksenta.com. The team members consist of consultants accredited and approved by the RSPO includes:

a) Sigit Budhi Setyanto(sigit@aksenta.com): He graduated from the Faculty of Agriculture of Universitas Negeri Jember and has been involved in research and has experiences in areas involved with growers and communities development since 1990. Since 2004 he has been active as the auditor for *CAFÉ Practice Program* in Indonesia and Papua New Guinea as well as an *Agriculture Marketing Specialist* for an international NGO for *Rural Agro-enterprise Development (RAeD)* program. He is experienced in national and international training on *Sustainable Organic*, *"SCS-Starbucks" CAFÉ Practice*, *"Rainforest Alliance" – Sustainable Agriculture*, *Forest Management and Chain of Custody*, as well as *"DOEN- Roundtable Sustainable Palm Oil*. In Aksenta, he has carried out assessments on *"Socio – Economic study on palm trees in West Pasaman and Sanggau"*, *"Social Impact Assessment"* and *"High Conservation Value Assessment"* for Indonesian Palm Oil Companies. In March, 2010, he obtained the accreditation from RSPO as the *Discipline Specialist* for Social Assessment on palm oil companies. His role in this Social

Impact Assessment was as one of the team members focusing on the field of socio-economic and social development.

b) Miranti Magetsari (aget@aksenta.com): She graduated from the Physics Department, Faculty of Matematika dan Ilmu Pengetahuan Alam (Math and Natural Science), Institute of Technology Bandung. She has the relevant training on ISO 14001 (Environmental Management System) and OHSAS 18000 (Management of Health and Working Safety). She is experienced in developing management system for human resources and quality, and conduct assessment for management system certification. The assessments that she has been assigned by Aksenta were Social Impact Assessment and High Conservation Value Assessments for several palm oil companies in Indonesia. Her role in this Social Impact Assessment was as one of the team members focusing on the aspect of socio-economic and social development.

c) Sofyan Cholid (sofyan.cholid@aksenta.com): He obtained his Bachelor Degree from the Department of Social Welfare of Fakultas Ilmu Sosial dan Politik (the Faculty of Socio-Politic) and Master Degree of Geography from Fakultas Matematika dan Ilmu Pengetahuan Alam (the Faculty of Math and Natural Science), Universitas Indonesia (UI). He has been involved in the activities of NGOs focusing on social problems such as the abandoned children living on the streets, HIV/AIDS, and local prostitutes. With Badan Pertanahan Nasional (the Indonesia National Bureau of Land), he was involved in the survey of the land statistics in corporation with Badan Perencanaan Pengembangan Nasional (the National Planning and Development Department) and Indonesia Social Department. As a researcher from Pusat Kajian Perlindungan Anak UI (Children Protection Assessment Center of UI), he has carried out assessments on the system of protecting street children in Indonesia in collaboration with Columbia University funded by the UNICEF. His role in this Social Impact Assessment was as a team member focusing on socio-economic and social development.

2. The HCV assessment in the consent area of PT Agrowiratama was carried by an independent consultant from Aksenta which is located at Jl. Gandaria VIII/10, Kebayoran Baru, Jakarta 12130; Telephone/fax: +62 21 739-6518, E-mail: aksenta@aksenta.com. The team members consist of consultants accredited and approved by the RSPO includes:

a) Wibowo A Djatmiko (bowie@aksenta.com): He has the capacity and experience in conservation research, wild life management, habitat and population study, wild life ecology (especially on birds and herpetofauna), and forest ecology (including forests resident) researches. He graduated from Bogor Agriculture University in Forestry majoring in the field of biodiversity conservation. He is also involved and attended courses such as Second Asian School for Conservation Biology (SEAMEO BIOTROP – Bogor) and International Training Course on Practical approach to Management of Biodiversity Conservation (Malayan Nature Society, in Kuala Lumpur). He completed his Master Degree in Biology Conservation at Universitas Indonesia. He is well experienced as an independent consultant with wild life ecology specialty, AMDAL-forestry analysis (the analysis of environment impact), mining and transmigration, and assessment of eco-global certification for both commercial and traditional forests. He has conducted many HCV assessments for palm oil plantations since 2006. In this HCV assessment for PT. Agrowiratama, his role is to focus and identify the existence of HCV 1, 2, and 3. On 26th April 2010, he achieved the RSPO accreditation as the Discipline Specialist Biodiversity (for plants, mammals, avifauna, herpetofauna) and Social (participatory rural assessment; socioeconomic or cultural studies).

b) Idung Risdiyanto (idungris@aksnta.com): He obtained his Master Degree of Science in the field of Natural Resources Development Technology from Bogor Agriculture University after graduating from the same institute majoring in Agro Meteorology. His working experience includes administering assessments and researches on Green House Gas (GHG) and water resource assessment in collaboration with United Nation for Environment Program (UNEP) and PPLH IPB (Institut Pertanian Bogor or Bogor Agriculture University) in 1997. Since then, he has conducted many research activities with many leading institutes in Indonesia such as LIPI (Indonesian Institute of Science), LAPAN (Indonesian Institute of Aeronautics and Space), BPPT (Agency for the Assessment and Application of Technology) and BMKG (Bureau of Meteorology, Climatology,

and Geophysics). Almost all of his researches are related to assessments of natural resource analysis and most of them were about water, soil, and climate using Geographic Information System (GIS), Remote Sensing, Spatial Analysis and Modeling approaches. At present, he is one of the team members of Aksenta who is responsible to assess the existence of HCV 4. He is also team member in Departemen Kehutanan (Forestry Department of Indonesia) to assess issues related to watershed in Indonesia since 2007. He is also lecturing in meteorology-satellite at Bogor Agriculture University. In March 2010 he achieved his accreditation from RSPO as Discipline Specialist Hydrology/Soil (Watershed management; hydrology conservation projects soil).

c) Nandang Mulyana (nandang@aksenta.com): He is the member of Aksenta team who is responsible for analyzing the Socioeconomic and CD/CSR aspects. Graduated from UMJ – Jakarta majoring in Economics and a Master Degree holder from Bogor Agriculture University, focuses on Ilmu Perencanaan Pembangunan Wilayah (development and planning studies). He is experienced in the field of socio-environment. In this HCV identification, his role was to identify HCV 5 and 6. In March 2010 he achieved the RSPO accreditation as Discipline Specialist Social (Participatory rural assessment; socioeconomic or cultural studies; participatory mapping; conflict resolution).

d) F. Getsamany (getsamany@aksenta.com): He is experienced in GIS and remote sensing techniques for biology conservation and issues related to land management by the local communities. He has also carried out research on radiation quantity in forest and energy management by the forest using GIS and Remote Sensing techniques. He is also experienced in the soil potential resource analysis, the analysis on water and conservation area.

Assessment Methods (Data sources, data collection, dates, program, and places visited)

Social Impact Assessment on the ground was carried out as follow:-

1. **Participative:** Issues identification and information searching were done in a participative way. This participative approach enabled the participants as the relevant subjects in mapping the social issues they are facing, expressing their opinions and ideas, as well as being involved in designing the management and mitigation of issues. (The list of stakeholders in participative process is presented in the SIA Report).
2. **Multiparty:** Issues identification and information searching were done in multiparty way by involving related parties directly or indirectly impacted by the development of oil palm plantation in the area.
3. **Rapid and Extant:** Issues identification and information searching were done in rapid way and based on the forecast of the impacts from changes that will take place from the feedback – as the approach to the Social Impact Assessment within the time allocation.
4. **Appreciative:** Issues identification and information searching were guided positively, not only to find out the gap at the location but also to collect the data on expectations, potentials problems, and ideas for identification of solutions and social issues that may arise.
5. **Social Learning Cycles:** The Social Impact Assessment is not a linear process which is instantly created but a cycled process which functions as the social learning processes to respond the changes in the environment.

The methods and techniques applied in the Social Impact Assessment were:

1. **Literature Study:** This method was used for the purpose of gathering information on the socio-context and environmental aspect of the location which was evaluated. It was carried out in the early phase-before going to the field and at the result analysis phase. (This was described in the SIA report of PT Agrowiratama - Sambas July 2010 by Aksenta);



Report number: 813182RSPONPPCUCRPT -2011-01-AS

2. **Dialogue:** This method was used to identify the nature of the parties, identify the potential issues and impacts, gathering information about expectations, ideas, and opinions to enable identification of potential solutions to address these potential issues and impacts. The process was carried out through meetings both in formal and in non-formal sequence focusing on specific topics (Focus Group Discussion or FGD);
3. **On-the-Spot Observation:** This method was used to understand directly the actual facts on the ground which serve as indicators of the issues and social impacts ;
4. **In-depth Interview:** This technique was used to get a deeper understanding about the issues. It was done in-depth by interviewing the key people who will be affected by the development of plantation. The criteria of choosing the respondents were based on the knowledge possessed or their direct experience over the impact or impacts.
5. **Tri Angulations:** This method was carried out in integrated way to reciprocally verify the actual issues, opinions and ideas.
6. **Social Learning Cycle:** The Social Impact Assessment is not a linear process which is instantly created but a cycled process which functions as the social learning processes to respond the changes in the environment.

Assessment Methods (Data sources, data collection, dates, program, and places visited)

HCV Identifying Methods

The assessment covers the permitted area which is included into the company's project area. The assessment was also expanded into villages and other areas which are of considerably importance to the surrounding proposed plantation area. The field survey was conducted in June 2009. The survey area covers 183 observation spots (location map of observation spots is presented in HCV report of PT Agrowiratama Sambas August 2010 by Aksenta). In the process, each observation team was accompanied by the field staff from the company and local representatives who are familiar with the site. Besides field survey, the team also collected information from the local community through individualistic interviews, Focus Group Discussion (FGD), as well as public consultations (the list of stakeholders in the participative process is presented in HCV report of PT. Agrowiratama Sambas August 2010 by Aksenta). At the same time, confirmation and cross checking of the findings were carried out with the local community using the technique of purposive sampling – which includes the communities, the enclaves' owners (where existed), and the related interested/affected parties.

The understanding and scope of HCV for the oil palm plantation is confined to the HCVF definitions which applicable to the forestry sector as adopted by the RSPO. The Identification of High Conservation Value in Indonesia was developed by the Konsorsium Revisi HCV Toolkit Indonesia (2008) (the toolkit for the revision HCV consortium). Other references used include IUCN, CITES, and other guidelines as well as the relevant Laws of Indonesia were also taken into consideration. (The summary is presented in HCV report of PT Agrowiratama Sambas August 2010 by Aksenta).

Identifying Methods for HVC 1, 2, and 3

The target for HCV 1, 2, and 3 identifying was to find out the areas which have important values in the biological context. Such areas are characterized by the location status, the origin of the communities, or the existence of the ecosystem of flora and fauna with high values. The significant values of flora and fauna refer to the status defined by the law, endemics (endemic, limited spread), and scarcity (scarce, facing extinction or almost extinct) was in accordance to the national and international law (IUCN and CITES) which protect such flora and fauna. The significance of the value of the wildlife as well as the habitat was also based on the ecology roles from the species and from the cultural and



Report number: 813182RSPONPPCUCRPT -2011-01-AS

traditional point of view.

The method of inventories was carried out using reconnaissance survey to analyze the existence of the important flora and fauna. The existence of fauna was recorded through:

- Direct observation, either through the identification of visual appearance or sound (for both diurnal and nocturnal animals),
- The existence of the marks or residual from the animals' activities in their former habitat (such as tracks, scars on trees, nest, scales, snake skin, bird feathers, or mammal hair, etc.).
- The finding of the residual of animals' body parts (skull, horn, skin, hair, tusk, scales, and other recognized part of the animals' body) which were possibly hunted or caught by the local people in the observed locations. Interviews were carried out to complement the information about the time and location of the hunting activities.
- The secondary information was the existence of the animals which were documented based on external information, such as local people information or the local authorities. The consistency of such information was monitored through cross checking (check and recheck) with other relevant parties as well as checking the validity of the description on every species of animals from the feedback from interviews with the local people. All information was then matched with the natural distribution and the history of the existence of such species in the locations. The data was then compared to the type and condition of the habitat at the time when the survey was done. Any mismatching between the description and their natural distribution zone and habitat, will result the existence of such species in doubt.

Identification Methods for HVC 4

In order to identify the existence of HVC 4 in area, two approaches were applied in the assessment. The first approach was through analysis to find out the interactions and correlations between the water system and the proposed plantation land in a wide context. The approach also covered the area outside the proposed plantation area. The second approach was an analysis to find out the significant values of such locations and their impacts to the proposed plantation's location. Based on both approaches, the phases of identifying HCV 4 were analysis of the secondary data, field survey, and the integrated data analysis of secondary data and the field survey. Identification of the HCV 4 areas was based on analyzing the area from the metrology point of view, the soil analysis, topography, watershed, and the field survey and interviews. The field observation was carried out in specific locations; i.e. springs, river, river condition, land clearing by existing area, land use in the area, and other locations representing the condition of the water management in the area.

Identification Methods for HVC 5 and HCV 6

The focus of the HCV 5 assessment was the area inside the proposed plantation which has significant values to fulfill the basic needs of the local community. The focus of the HCV 6 assessment was the area inside the proposed plantation which has the significant values for identification and sustainability of the tradition or cultural living of local community. The methods adopted in the assessment of HCV 5 and 6 are:

- Mapping participation of locations containing elements of HCV 5 and 6.
- Interview the local community, either with individual or Focus Group Discussions.
- Ground assesment and analysis.

The HCV Assessment Phases



Report number: 813182RSPONPPCUCRPT -2011-01-AS

The HCV assessment was carried out through a series of phases i.e. Desk Study, Field Survey, Data Analysis, Spatial Analysis of HCV area, and indicative HCV mapping as shown in HCV report of PT Agrowiratama Sambas August 2010 by Aksenta.

3.2.4 Summary of SEI Assessment Findings

The finding from the AMDAL (SEIA) and SIA assessment identifies both positive and negative impacts from the proposed operational activities of PT Agrowiratama. The positive impacts of the activities identified are uplift of the local people's financial income, opening of more job opportunities and several others whilst the negative impacts that are possible to occur are the threats to the existence of the ecology as well as the potential conflict of workforce, socio-cultural disturbance, and others. The SIA study result by RSPO Accredited Assessors (Aksenta) stated that, in general, the existence of PT Agrowiratama has a significant social impact to the basic requirement to the social sustainability of local community. Those findings have defined how the company's business management influences the key issues in the respective components of the social sustainability of local community (details in the SIA report of PT Agrowiratama Sambas July 2010 by Aksenta, page 6-1).

The stakeholders mentioned in the context of Social Impact Assessment are those who may affect or being affected by the operation of the oil palm plantations and mills. The identification of those parties was carried out through a series of Focus Group Discussion (FGD) meetings within the management and local community as well as on site interviews. There is a detail stakeholders consulted during the assessments and this is presented in the SIA report of PT Agrowiratama Sambas July 2010 by Aksenta.

3.2.5 Summary of HCV Assessment Findings

The assessments have revealed that no primary forest was identified and recognized all local community land. Areas that are required to maintain or enhance one or more High Conservation Values (HCVs) have been identified and the soil types are dominantly mineral soils (88 %), sandy soil (9 %), and peat soil (3 %).

Three types of HCVs were identified by RSPO Accredited Assessors from Aksenta, HCV 1, HCV 4, and HCV 6 within the legal boundary of proposed new planting of PT Agrowiratama, with the total area of 982.4 Ha (10.9% of the total permitted area). The important elements for HCV 1 are the existence of population and tracks of endangered species such as Müller's Bornean Gibbon (*Hylobates muelleri*), Giant River Turtle (*Batagur baska*), Sarawak Surili (*Presbytis chrysomelas*), Sunburst Turtle (*Heosemys spinosa*), and Sunda Pangolin (*Manis javanica*). The important elements for HCV 4 are related to the potential damage from erosion, the springs, and river riparian. The important elements for HCV 6 are related to the traditional and sacred graveyard. (full details are available in summary report of SEIA and HCV assessment of PT Agrowiratama). The management is committed to leave the peat area unplanted. This was confirmed during the interview with the management team of PT Agrowiratama and letter from Director of Strategic and Planning No. Dir. of S&P/001/XII/2010 dated 16th December 2010 further confirms the management's commitment to leave a side the peat area.

3.2.6 SUMMARY OF PLANS:

Development of SEIA and HCV Management Plans

The findings by Aksenta on High Conservation Values (HCV) and Social Impacts Assessment (SIA), and the recommendations in SEIA (AMDAL) are incorporated in the HCV and SIA management plan. Development of the HCV and SIA management plans for PT Agrowiratama was facilitated by Aksenta team through a workshop for the PT Agrowiratama management and sustainability team conducted



Report number: 813182RSPONPPCUCRPT -2011-01-AS

from 8 – 11 December 2010 in the company's head office in Medan, North Sumatra. The purpose of the workshop was to enable the management team to have a better understanding of the HCV and SIA findings and their related implications so as to provide reference points in developing the operational activities of the company related to the high conservation values, social management's synergy with the company's development of oil palm plantation.

Stakeholders' Consultation

The process of the HCV and SIA development and preparation of management plans and monitoring PT Agrowiratama involved consultation with the relevant stakeholders such as governmental offices (BKSDA, BP-DAS (Plantation and Forestry Office), the Office for Environment (BLH), the local community, the government official of local village and sub-district, the local NGOs, independent consultant (Aksenta) and the local existing plantation companies.

A stakeholders' consultation of the HCV and SIA management plan involving the stakeholders from local communities, village heads, government agencies, NGOs, Other surrounding plantation companies, PT Agrowiratama Management team and RSPO accreditation assessors from Aksenta was held on 21st October, 2010. Communication with the stakeholders concerned was in the forms of information, interaction, and inputs exchanges between the company and the stakeholders in order to achieve understanding of the management plans for the stakeholders. The inputs from the presentation by various stakeholders (see below) during the stakeholders' consultation workshop in Sambas on 21 December 2010 related to the HCV, SIA, and AMDAL were incorporated.

The summary of the stakeholders' consultation workshop is as follow:

1. Total of 69 participants has attended the stakeholder consultation workshop organized by PT. Agrowiratama on 21st December, 2010 in Sambas Sub-District, West Kalimantan as follow:

No. of participants	Organization
17	Government Agency / Department, Natural Resources and Conservation Department (KSDA), Department of Agriculture and Forestry (DISBUN), Environment Department (BLH), River Area Monitoring (BP-DAS) Agency, Police Department, Army Department, Investment Department (BPMPPT).
26	Representatives from village community (heads of village, district officers, villagers)
5	NGO – WWF (Environmental NGO West Kalimantan), GEMAWAN (Social NGO West Kalimantan), WAHANA VISI (Social NGO Sambas), Mangrove Center Foundation (Environmental NGO Sambas)
8	Surrounding plantation companies [PT Wilmar Sambas Plantation, PT Agro Nusa Investama, PT Buluh Cawang Planttion, PT Rana Wastu Kencana, PT Karya Boga Kusuma and PT Mitra Inti Sejati Plantation]
9	PT. Agrowiratama employees
4	Assessors from Aksenta

2. Presentation by various stakeholders and PT Agrowiratama during the workshop were:-
 - Policy of Conservation Legislation by Bapak. Taufik (Natural Resources and Conservation Department (BKSDA)).
 - Policy of Integrated River Area Management by Ir.Toni Kartiman, M.p (Head of River Area Monitoring Agency Kapuas).
 - Implementation of Social Environment Impact Assessment (AMDAL) by Ir. Herman Hasyim,



Report number: 813182RSPONPPCUCRPT -2011-01-AS

M.T (Head of Environment Department).

- HCV Management and Monitoring Plan of PT. Agrowiratama by Bapak. Wibowo A. Djatmiko (Aksenta).
- Sustainable Management in Environment, Social and Oil Palm Development by Bapak. Haryono (WWF FCP officer).
- SIA Management and Monitoring Plan of PT. Agrowiratama by Bapak. Sigit B Setyanto (Aksenta).
- Materials from Manggala Agni/ BKSDA by Bpk. Taufik (BKSDA).
- Process and Implementation of AMDAL of PT Agrowiratama by Bapak. Sony Kurniawan (PT Agrowiratama).

3. The issues raised during the workshop were:

Communication issues between the stakeholder and information sharing (socialization), local community right, river riparian, illegal logging, AMDAL implementation and small holder (mitra) scheme cooperation. (The question and answer records are summarised in the report on stakeholders' consultation workshop).

SIA Management Plan

The SIA development and preparation of management & monitoring plans for PT Agrowiratama was based on the SIA Assessment findings conducted in July 2010 the RSPO Accredited Assessors from Aksenta and the AMDAL Assessment for PT Agrowiratama which were approved on 12 October 2010 (by the decision letter [decree] of the regent of Sambas sub-district – Surat Keputusan Bupati Sambas No. 269 Tahun 2010) and, in principle, referred to the related Laws in Indonesia. The steps taken in the HCV and SIA development and preparation of management & monitoring plans were:

1. Determining the strategic issues i.e. land acquisition for plantation, public facilities, environment condition, Health condition, welfare, and company's communications with the local people.
2. Determining the purposes and desired final condition of the project (vision, practical vision, end-state).
3. Determining targets and objectives to achieve, creating the strategy map to achieve the desired outcome.
4. Identifying the must-do initiatives to achieve the determined targets.
5. Identifying the competency reinforcement of human resources and the supply of the infrastructures so that the implementation of the process can be achieved effectively.
6. Determining effective monitoring activities to analyze the dynamic state of every indicator in order to assess the progress of target and achievement.

The scope of the development and preparation of management & monitoring plans includes the potential impacts by the proposed plantation activities. The development and preparation of management & monitoring plans guidelines include:

1. The Management Plans of PT Agrowiratama Sambas, Strategic Issues on Land Acquisition

The scope for this management and monitoring plan includes the process of land acquisition which adhered to the principles of Free Prior Informed Consent (FPIC) such as:

- a) The policy and procedure for paying the compensation for the land acquisition through information sharing (socialization) and implementation,
- b) Administering the field survey with the participation of the local community,
- c) The policy of the company to respect and accommodate the local community's main



Report number: 813182RSPONPPCUCRPT -2011-01-AS

professions which were based on the land management, and the settlement of legal documents which was under the actual related laws of the country.

There is a list of stakeholders who have been consulted by the Public Relation (HUMAS) Manager who the management representative is appointed to address the FPIC and land compensation matters. He is assisted by four field staff on site.

2. The Management Plans of PT. Agrowiratama Sambas, Strategic Issues on Infrastructures

The scope for this management and monitoring plan includes the participation of the company in building and developing the public facilities (infrastructures) such as health centers, schools, religious facilities, etc. as well as coordinating with local institutions and offices which are related to the proposed project to support the project itself.

3. The Management Plans of PT. Agrowiratama Sambas, Strategic Issues on Health Condition

The scope for this management and monitoring plan includes the uplifting of the level of the health quality of the local community and the distribution and maintenance of the assistance for health based on the outcome of the local community's participations and ideas.

4. The Management Plans of PT. Agrowiratama Sambas, Strategic Issues on People Welfare

The scope for this management and monitoring plan includes the opening of better job opportunities for the local community by information sharing (socializing) and informing the job vacancies available for them. The company is also actively involved in gaining the community's life skills in workforce by frequently conducting training programs based on the training need assessment.

5. The Management Plans of PT. Agrowiratama Sambas, Strategic Issues on Communication

The scope for this management and monitoring plan includes the storage of actual information and data for related parties concerning both policies and programs of the company in order to achieve positive acceptance and understanding of all stakeholders. These activities will be implemented by having regular meetings with the stakeholders and information sharing (socializing) of the policies of the company related to the stakeholders such as actual policies and land acquisition compensation procedures, and complaints procedure and management.

6. The Management Plans of PT. Agrowiratama Sambas, Strategic Issues on Environment

The scope for this management and monitoring plan includes the management and monitoring of both social and environment aspects which to be covered in the RKL (Rencana Pengelolaan Lingkungan – Environmental Management Plan) and RPL (Rencana Pemantauan Lingkungan – Environmental Monitoring Plan) documents of PT. Agrowiratama. The main purpose of the activities was to achieve conservation of the environment as well management and mitigation of the negative impacts through the following activities:

- a) The Management and Monitoring of the Air Quality,
- b) The Management and Monitoring of the Water Quality,
- c) The Management and Monitoring of the Soil Quality,
- d) Administering regular surveys on local community's perceptions concerning the environment actual condition,
- e) The monitoring of the company's performance in administering the environment management.

HCV Management Plan

The HCV development and preparation of management and monitoring plans was based on the result of the HCV assessment which was completed in August 2010 by the RSPO Accredited Assessors from Aksenta. This process developed data and information related to the existence of the HCV area in the proposed area of PT Agrowiratama in the Sambas Sub-District in West Kalimantan. The key elements of HCV and the actual condition include the potential threats, and the recommendation for



Report number: 813182RSPONPPCUCRPT -2011-01-AS

the management.

The HCV development and preparation of management and monitoring plans was developed to provide guidelines for the company in planning and management of the HCV areas identified in its proposed developing area. The purpose was to identify available resources and be focused so as to be integrated in an effective manner in HCV management. The purposes of this management and monitoring document were:

1. To ensure that the identified and determined HCV areas are managed so that their HCV functions are preserved,
2. To effectively administer the management and monitoring plan to ensure that the process is coordinated systematically according to the legal procedures.

The process of the HCV preparation of management and monitoring plans for PT Agrowiratama, Sambas was based on the structure of strategy mapping which focused on three fields under the management and responsibility of the plantation management;

- 1) Stakeholders,
- 2) Operation, and
- 3) People & Resources.

Plan for HCV Monitoring and Regular Review of Data

The HCV monitoring and review plan is aimed to evaluate whether the activities implementation are as expected and whether the outputs of the process are as per targets; and whether the resources investments (human, fund, time) are as per plan.

Management and mitigation plans for threats to HCV areas.

The identified basic activities which are planned in order to achieve the basic targets for the enhancement and maintenance of the HCV areas are:

1. Enhancing and rehabilitating the clinching areas with natural vegetations,
2. Soil and water conservation,
3. Protecting the sacred and cultural local sites,
4. Mitigating negative impact in the proposed new land openings,
5. Minimizing possible accidental fires,
6. Mitigating illegal hunting of protected animals,
7. Develop policies and procedures to minimize impacts on protected animals.

Management plans to enhance or maintain conservation values of identified HCV areas



The process of Strategy Mapping, the Practical Vision was adopted in defining the Basic Targets. Those Basic Targets included seven items to be achieved through the efforts of HCV management as follow:

1. The existing areas with key animals in the proposed area are conserved,
2. The sustainability of the local habitats is reserved,
3. The river banks function as the hydrological buffer (the protection for water cycle), ecology (the protection for wildlife species) is maintained,
4. The erosion risk is managed and controlled,
5. Conserve water catchments areas,
6. Minimize damage of peat moss areas,
7. Preserve the local graveyards and cultural sites.



Report number: 813182RSPONPPCUCRPT -2011-01-AS

4. Formal signing off of the Internal Responsibility

4.1 Signing off by the assessor of the certification body.	
Name	Senniah Appalasamy
Position	Lead Auditor
Signature	
Date	6 th January 2011
4.2 Acknowledgement of internal responsibility by PT Agrowiratama.	
I the undersigned, being the legal representative of the inspected company, agree with the contents of this report.	
Comments: The CUC assessment findings and conclusion are acknowledged and accepted.	
Name:	Dr Gan Lian Tiong
Position:	Head, Sustainability Department
Signature:	
Date:	6 th January, 2011



Report number: 813182RSPONPPCUCRPT -2011-01-AS

AMDAL	Analisis Mengenai Dampak Lingkungan (Analysis on Environmental Impact)
BOD	Biological Oxygen Demand
BPN	Badan Pertanahan Nasional (National Land Body)
BRC	British Retail Consortium
BSS	PT. Berkas Sawit Sejati
CHRA	Chemical Health Risk Assessment
CoC	Chain of Custody
CPO	Crude Palm Oil
CSR	Corporate Social Responsibility
CU	Control Union
DPPL	Dokumen Pengelolaan dan Pemantauan Lingkungan (Environmental Management and Observation Document)
EFB	Empty Fruit Bunch
EUREPGAP	Euro-Retailer Produce Good Agricultural Practices
FFB	Fresh Fruit Bunch
FSC	Forest Stewardship Council
FSC FM	Forest Stewardship Council Forest Management
GGL	Green Gold Label
GMP	Good Manufacturing Practice
GTP	Good Trading Practice
GOTS	Global Organic Textile Standard
GPS	Global Positioning System
HACCP	Hazard Analysis and Critical Control Point
HCV	High Conservation Value
HCVF	High Conservation Value Forest
HGU	Hak Guna Usaha (Land Right)
IPM	Integrated Pest Management
Jamsostek	Jaminan Sosial Tenaga Kerja (Social Insurance for Employees)
MSDS	Material Safety Data Sheet
NC	Non Conformity
OE	Organic Exchange
OSH	Occupational Safety and Health
OSHAS	Occupational Safety and Health Assessment Scheme
P&C	Principle and Criteria
PEFC	Programme for the Endorsement of Forest Certification
PK	Palm Kernel
PKB	Perjanjian Kerja Bersama (Collective Agreement)
PKS	Pabrik Kelapa Sawit (Palm Oil Mill)
POD	Policy Document
POM	Palm Oil Mill
POME	Palm Oil Mill Effluent
PPE	Personal Protective Equipment
PT	Perseroan Terbatas (Limited Company)
R&D	Research and Development
RKL	Rencana Pengelolaan Lingkungan Hidup (Environmental Management Plan)
RPL	Rencana Pemantauan Lingkungan Hidup (Environmental Monitoring Plan)
RSPO	Roundtable on Sustainable Palm Oil
RSPO NI	Roundtable on Sustainable Palm Oil National Interpretation
SA8000	Social Accountability 8000
SIA	Social Impact Assessment
SOP	Standard Operating Procedure
UKL	Upaya Pengelolaan Lingkungan Hidup (Environmental Management Effort)
UPL	Upaya Pemantauan Lingkungan Hidup (Environmental Monitoring Effort)
WHO	World Health Organizations