BSI-CUC

Verifying Greenpeace Claims Case: PT SMART Tbk

August 2010

Executive Summary

1. Introduction

1.1. In December 2009, Unilever announced its decision to suspend their future business with PT SMART Tbk (SMART) based on an audit conducted by Aidenvironment that was commissioned by Unilever on its major palm oil suppliers (published in June and November 2009). The Aidenvironment audit verified the Greenpeace report "Burning Up Borneo" (published in April 2008). Unilever's suspension coincided with another Greenpeace report "Illegal Forest Clearance and RSPO Greenwash: Case Studies of Sinar Mas" (published in December 2009). Meanwhile, SMART refuted the allegations raised in the Greenpeace publications and questioned the findings and methodology used by Aidenvironment.

1.2. SMART in consultation with Unilever appointed two Certification Bodies: Control Union Certifications (CUC) and BSI Group (BSI), and two experts from Faculty of Forestry, Bogor Agriculture Institute (IPB) to review and verify in particular the claims raised in the REPORTS "Burning Up Borneo" and "RSPO Greenwash" together with claims in three additional reports "Caught Red Handed", "New Evidence: Sinar Mas – Rainforest and Peatland Destruction", and Powerpoint Presentation: "Sinar Mas Continues Rainforest Destruction" (the REPORTS). The composition of the Independent Verification Exercise (IVEX) Team was decided on the basis of its ability to provide an independent assessment of the claims raised in the REPORTS, based on transparent and objective verifications; and using scientific methodology.

1.3. For all Greenpeace claims on environmental issues, The IVEX Team extended its verification to all the eleven concessions covered in the field visit. The field visits were conducted from 17 to 22 May 2010 and 31 May to 8 June 2010 in Central and West Kalimantan respectively.

1.4. The REPORTS referenced Sinar Mas and alluded that Sinar Mas is an operating business entity and owns the companies such as Golden Agri-Resources Ltd (GAR) and SMART. SMART has clarified that Sinar Mas is a brand name and not an operating business entity. SMART does not have legal control over all operating companies controlled by GAR but it manages all GAR's palm oil operating units.

2. Greenpeace Claims

In summary, the REPORTS contain allegations that the "Sinar Mas Group":

2.1. Had cleared and planted on peatland with a depth of more than three meters and are therefore deemed to have violated Indonesian Law (for five concessions in Central Kalimantan Province and two concessions in West Kalimantan Province).

2.2. Had destroyed primary forests and Orang-utan habitat (for six concessions in Central Kalimantan Province and two concessions in West Kalimantan Province).

2.3. Had performed forest land clearance/logging without obtaining Timber Utilization Permit-IPK (for three concessions in West Kalimantan Province) or prior to obtaining approval of Environmental Impact Assesment (EIA) (for two concessions in West Kalimantan Province).

2.4. Had conducted land clearance/preparation by means of burning (five concessions in Central Kalimantan Province and one concession in West Kalimantan Province).

2.5. Had caused social conflicts including land rights and resource conflicts through plantation expansion.

2.6. Had used the Roundtable on Sustainable Palm Oil (RSPO) membership rules by making two companies under GAR –SMART and PT Ivo Mas Tunggal – members of RSPO to "greenwash" and create an impression that GAR is committed to sustainability through RSPO membership.

3. The IVEX Team Conclusions

In summary, the conclusions from the verification exercise with respect to the main points made in the REPORTS are as follows:

3.1. Planting on peat lands and deep peat were found but not as extensively as claimed in the REPORTS. The planting on deep peat in concessions examined was mainly incidental due to the difficulty in identifying sporadic and small plots of deep peat. There is planting on deep peat (> 3 m) in two estates from 2005 – 2008 which is in breach of the Presidential Decree with regards to deep peat issued in 1990. This also contravened SMART's own operating instructions.

3.2. All the land in the eleven concessions examined comprised of secondary forests, degraded and shrub land and were no longer primary forests before SMART started land clearing and planting. This was verified by analysing historical land use, sighting of minutes of the process of compensation and also sampling of timber potential of existing trees. It was confirmed by analysis of satellite photographs covering the areas before and after the land was acquired by SMART for oil palm cultivation. This suggests that the degradation process of forest areas that were habitats for Bornean Orang-utan happened before SMART took over the lands.

While the above findings indicate that it is highly unlikely that there are High Conservation Value (HCV) forests left in the concession areas in Central and West Kalimantan, 21% (37,698 Ha) of the total 182,528 Ha was opened before independent HCV assessment. This potentially contravenes RSPO Principles and Criteria (P&Cs) and SMART would need to propose a compensation or exclusion process when these plantations enter into the certification process.

3.3. A thorough analysis of the three concessions in Kapuas Hulu, West Kalimantan, showed that there was no potential of economically valuable timber. Consequently, SMART did not continue to process its IPK application.

In West Kalimantan, all except two concessions examined had the necessary EIA (AMDAL) prior to land clearance activities. In these two cases, the local government, District Head of Ketapang (Bupati) allowed land clearing before EIA approval for all oil palm plantation concessions in its district.

In Central Kalimantan, all concessions examined were found to have carried out land clearance before the EIA was approved. SMART explained that they had interpreted the Ministry of Agriculture Regulation No. 229/Kpts/KB.550/4/91 date 25 April 1991 and 753/Kpts/KB.550/12/93 date 6 December 1993 that a plantation company can develop the plantation before EIA. SMART also interpreted Ministry of Agriculture Regulation No. 786/Kpts/KB.120/10/96 date 22 October 1996 that a plantation company can develop the plantation simultaneously while EIA and HGU (Land Use Title) being processed before the company obtains a permanent plantation permit.

3.4. Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Observations and analysis of hotspot data support the view that systematic land clearance by burning had not taken place. Most hotspots and burning in or near SMART's concession occurred before land compensation and preparation and were likely to have been caused by traditional slash-and-burn practices of the local community.

3.5. While the team found no evidence of negative social impact from the planting of oil palm in the concessions, it has noted weaknesses in SMART's documentation of its engagement process with land owners during the land compensation dialogue. Interviews conducted in the field with members of the community indicate they perceive the plantations had a positive impact. However, The IVEX Team feels that for its observations to be conclusive, separate research needs to be done and recommends that SMART embarks on this.

3.6. A literal reading of the RSPO Certification Systems document Para 4.2.4, would indicate that RSPO rules allow SMART and PT Ivo Mas Tunggal and all operating units held by the two companies to embark on the RSPO certification process. However, it would appear that the literal reading may not sufficiently address organisations with complex legal and management structures who may use this loophole to "greenwash". In GAR's case, it is clear that GAR is not a RSPO member and therefore it cannot claim or give the impression that GAR and all its subsidiaries are in the process of obtaining RSPO certification.

4. Methodology

The methods used to verify the claims were:

4.1. Chronological tracing of the application and approval of the relevant licences;

4.2. Analysis of land-use history and development of land cover of the prospective concession areas, including the use of satellite images;

4.3. Reviewing the chronology of field activities from land survey and assessment, socializations, land acquisition, land preparation to planting;

4.4. Analysis of peat depth distribution map and re-measurement of peat depth through sampling by using a special drill for identification of peat depth and soil analysis;

4.5. Analysis of the overlap between the 2006-2007 hotspots distribution map (2008-2009 for Kapuas Hulu) with maps of land acquisition development process;

4.6. Estimation of the timber potential of forested area through vegetation analysis with plots established through sampling;

4.7. Observations of wildlife populations in forested areas using tract and point combination method;

4.8. Interviews or consultation with the Heads of relevant Provincial Services (Forestry, Plantations and the Environment Agency), Head of Sentarum National Park and local government leaders (Regency Head and Related Regional Services) and other relevant people;

4.9. Literature analysis on relevant and existing regulations and legislations, reference books, reports and research results and EIA were conducted;

4.10. Field audits against RSPO Principles and Criteria which relate to the claims being verified;

4.11. Review of RSPO Rules particularly in relation to organisations with multiple companies and how this affects the RSPO certification process.

5. Findings

5.1. Peat

5.1.1. Central Kalimantan

- Peat depth distribution maps compiled by SMART in six concessions areas located in Central Kalimantan Province was cross-checked/re-measured with 1% intensity sampling and indicated that of the total 90,278 Ha concession area (where the planted area was 57,746 Ha) there were peat lands with various depths totalling to 6,594 Ha (7.30%). Out of this 1,880 Ha (2.08 % of the total concession area) was deep peat of more than 3 meters, which were cleared and planted with oil palm trees.
- The total peat land was therefore below the 8,067 (6,594) Ha as claimed in the REPORTS. The deep peat area of is also below the 6,597 (1,880) Ha as claimed in the REPORTS.
- Incidental planting was observed in all areas where deep peat occurs. The main reason for clearing and planting on deep peat was that they were not concentrated within one area but spread sporadically in various places and in small plots which are not easy to identify during the field survey.

5.1.2. West Kalimantan

- In Ketapang, out of 2 concessions 33,300 Ha, the peat of varying depths is 1,531 Ha. Of these, the entire 836 Ha (2.51%) of peat more t n 3 meters deep had been cultivated by the people involved in a transmigration program (568 Ha), and by SMART total 268 Ha (0.80%), 114 Ha for plasma and 154 Ha for nucleus scheme. As there are multiple stakeholders in this area, SMART has indicated it will consult them on practical remedial actions.
  - In PT Agro Lestari Mandiri (ALM), Ketapang, The IVEX Team field findings concurred with the REPORTS that SMART "continued to clear peatlands" on deep peat. SMART has indicated that this went against its Operating Instructions. The plantation manager has been suspended pending outcome of the verification report and stopped any planting on peat.
- In Kapuas Hulu, out of the total concession 58,950 Ha, the peat of varying depths is 1,399 Ha. Of these, all the 494 Ha (0.8%) of peat more than 3 meters deep had been cultivated by SMART.
  - The preliminary High Conservation Value Forest (HCVF) assessment report for PT Kartika Prima Cipta (KPC) done by Fauna and Flora International (FFI) at Kapuas Hulu in March 2009 states that within KPC (19,200 Ha) there was a total of 7,225 Ha of peat lands (37% of the total concession area). However, in FFI's subsequent analysis with additional data from field activities conducted from 11 to 14 August 2009, this was changed to 4,241 Ha where peat area more than 3 meters deep was 1,868 Ha (9.7% of the total concession area).
  - SMART's own survey identified a total peat area of approximately 1,500 Ha, out of this 48 Ha (0,25% of the total concession area) of deep peat more than 3 meters, were cleared and planted with oil palm trees. Furthermore, The IVEX Team discovered that some locations identified as deep peat by FFI were actually mineral soil.
  - SMART agreed that for deep peat cultivated in KPC, it will conduct restoration and rehabilitation works as well as closing the drainage channel network on the converted peat area with depth of more than 3 meters.
  - In PT Paramitra Internusa Pratama (PIP), The IVEX Team found oil palm trees were cultivated in 13.8 Ha of deep peat. This was against SMART's Operating Instructions. SMART explained that an estate manager responsible has now been suspended.

5.2. Orang-utan and Forest Clearance

- Analysis of historical land use, records of the minutes of the process for compensation and also sampling results of timber potential in forested areas, showed that the conditions of land cover throughout all eleven concession areas during the time when it was first managed by SMART in Central and West Kalimantan Province were no longer Primary Forest (Virgin Forest) as envisioned in the REPORTS. EIA study and HCVF assessment conducted in various concessions stated explicitly that the majority of the concession areas were degraded land or shrub areas. This is confirmed by satellite image analysis.

- This suggests that the degradation process of forest areas that were habitats for Bornean Orang-utan happened before SMART took over the lands. In addition, the status of the entire concession areas according to the Central Kalimantan Provincial Spatial Planning (RTRWP) was designated for APL (non forestry cultivation land including settlement, industrial and urban areas). Thus, from the review status of the area, development of oil palm plantation by SMART was not a process of forest area reduction (which according to FAO is known as Deforestation).

- RSPO Principles and Criteria require that areas with protected, rare, threatened or endangered species and HCV habitat are identified and recorded prior to planting and measures taken to preserve them. The typical interpretation is that these HCV assessments be done by external and independent experts. In the concessions examined, 21% (37,698 Ha) of the total 182,528 Ha was opened before HCV assessment.

- Based on the above interpretation and applying guidelines on when these criteria come into effect, 7 out of the 11 concessions (4 out of 5 in West Kalimantan and 3 out of 6 in Central Kalimantan) contravene RSPO P & C regarding HCV as planting was done prior to independent HCV assessment after November 2007. In 3 out of the 11 concessions, planting was done between November 2005 and November 2007 which means that these could still enter the RSPO certification process provided an HCV compensation mechanism be proposed and accepted by RSPO.

- The view of SMART is that since there were very few HCV assessors in Indonesia earlier, it used the information gathered from the independent EIA or AMDAL as guidance to identify HCV and hence minimizing the risk of developing on HCV. The RSPO National Interpretation directly links identification of HCV(F) to the EIA. However, the ambiguity over the similarities and differences between EIA and HCV(F) are not addressed by the RSPO. Therefore The IVEX Team recommends that the RSPO clarifies whether an independent (external) HCV assesstment is the only accepted means or whether other means of identify and recording HCV - using the EIA for example - is acceptable under the RSPO Principles and Criteria and the Indonesian National Interpretation.

- Specifically in PT Buana Adhitama (BAT) there were no tree cover since 1999. SMART developed BAT from end 2006. Furthermore an independent HCV assessor by RSPO confirmed in June 2010, that there is no Orang-utan and the only HCV is the river riparian and hilly area which are being conserved by SMART.

5.3. Plantation and Timber Permits

5.3.1. Timber Permits (IPK)

Analysis was done involving:

(a) chronological analysis of acquiring the location permit;

(b) analysis of the historical use of the concession area prior to allocation to all eleven concessions;

(c) chronological analysis of the socialization activities, land acquisition/compensation, land preparation/land clearing; and

(d) using Landsat imagery interpretation to analyze the land cover data in the year preceding the compensation process.

With reference to KPC, PIP and PT Persada Graha Mandiri (PGM), The IVEX Team findings showed that there was no potential of economically valuable timber with diameters more than 30 cm. This was supported by field measurement and estimation of the potential economically valuable timber in areas where there is still some timber in the above three concessions. The IVEX Team found that timber with diameter more than 30 cm was only about 12.6 m^3/Ha to 26.5 m^3/Ha (derived from 9 - 21 logs/Ha). This supports the reason that SMART did not continue to process IPK from the Kapuas Hulu Head of District when the Approval from Governor of West Kalimantan Province was obtained as the timber was not economically valuable.

5.3.2. Plantation Permits

- Chronology of permit acquisition and scheduling of the implementation of field activities were reviewed.
- The IVEX Team found that all concessions in West Kalimantan had obtained the relevant permits before proceeding with field activities except for ALM and PT Kencana Graha Permai (KGP) in Ketapang which had commenced clearing and planting activities before the EIA (AMDAL) was approved.
- ALM and KGP, however, complied with the Decree No. 247 dated 12 September 2001 issued by the Ketapang District Head. This decree stipulates the licensing procedure for large scale plantation business and states that the plantation business licence (IUP) can be obtained prior to the EIA approval. ALM and KGP commenced land-clearing prior to the completion of the EIA based on the Land-clearing Dispensation Permit issued by the Ketapang District Head.
- However, in Central Kalimantan The IVEX Team found that in all the six concessions examined, land clearing took place before the relevant permits (AMDAL) were obtained. This is in breach of Government Regulation 27/1999.
- SMART explained that they had interpreted the Ministry of Agriculture Regulation No. 229/Kpts/KB.550/4/91 date 25 April 1991 and 753/Kpts/KB.550/12/93 date 6 December 1993 that a plantation company can develop the plantation before EIA. SMART also interpreted Ministry of Agriculture Regulation No. 786/Kpts/KB.120/10/96 date 22 October 1996 that a plantation company can develop the plantation simultaneously while EIA and HGU (Land Use Title) are being processed before the company obtains a permanent plantation permit.

5.4. Burning

5.4.1. Central Kalimantan

Table 5.1 Hotspot Verification

Location	Hotspots	Percentage (%)
Outside SMART's Control		
Outside Concessions	69	42%
Within Concessions Before Transfer Ownership	38	23%
Third Party Enclaves Within Concessions	16	10%
Sub Total	**123**	**75%**
Within SMART's Control		
Border with Local Farmers	3	2%
Within Concessions After Transfer Ownership	25	15%
Within Concessions After Planting	13	8%
Sub Total	**41**	**25%**
Total	**164**	**100%**

- From the data provided and the verification carried out during the visit, 164 hot spots were identified and of these, 75% (123) occurred outside SMART's control and ownership, 25% (41) hotspots occurred within SMART's concessions. Of these, the cause of the 25 spots is unknown. SMART claims they often originate from slash and burn practices from neighbouring local farmers.
- Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Observations and analysis of hotspot data support the view that systematic land clearance by burning had not taken place. Most hotspots and burning in or near SMART concession occurred before land compensation and preparation.
- Interviews and police reports indicated that all concessions have monitored fires and hotspots but non-compliance of procedures in documenting fires and hotspots was a weakness in most concessions.

5.4.2. West Kalimantan

Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Most burning in or near SMART concession occurred before land compensation and preparation and were likely to have been caused by slash-and-burn practices of the local community.

5.5. Social Conflict

- There was no evidence of conflict over land acquisition process. However, there was also no records of participatory discussions with previous land owners during the compensation process. There was no evidence that independent third parties were represented during discussions with land owners. Where there was evidence of meetings, it appeared that the attendees were SMART employees, land owners and sub district heads (Camat) who witnessed compensation payment rather than being involved in negotiations. There was no clear evidence that land owners were provided with a cost–benefit analysis to compare the merits of owning the land or relinquishing it. Some land owners who did not relinquish their land rights were interviewed and they indicated that there was no undue pressure from SMART to relinquish their land.
- Interviews with the local community support the view that the plantations had a positive impact on the community. There were references of improvements in infrastructure and livelihood. However, the number of interviews conducted could not adequately conclude that there was no negative social impact to the communities. The IVEX Team feels that for its observations to be conclusive, separate research needs to be done and recommends that SMART embarks on this.

5.6. RSPO "Greenwash"

- GAR has a total of 53 operating companies under its holdings which are involved in the ownership and cultivation of oil palm. Out of this, as of the date of this report, two are registered as members of RSPO. These are PT Ivo Mas Tunggal and SMART. From a review of the organisational structure of GAR, this means that a total of 51 companies involved in the ownership and cultivation of oil palm are not members of RSPO.
- A literal reading of the RSPO Certification Systems document Para 4.2.4 would indicate that RSPO rules allow SMART and PT Ivo Mas Tunggal and companies held by these two companies to embark the RSPO certification process and be awarded certification if they meet the stated criteria and having passed the audit process. However, it would appear that the literal reading may not sufficiently address organisations with complex legal and management structures who may use this loop hole to "greenwash" its operations. For example, in the case of GAR, SMART does not have legal control over all operating companies controlled by GAR but it manages all GAR's palm oil operating units.
- Our recommendation is that RSPO reviews this ruling and provides further clarity in cases where legal and management structures are complex. In the present case, what is clear is that GAR is not a member of the RSPO and therefore GAR cannot claim or give the impression that GAR (and therefore all the companies held by it) are in the process of obtaining RSPO certification.

Table of Contents

1. Background

1.1. Objectives of Verification

To review and verify the following Greenpeace reports (the REPORTS)

1. Burning Up Borneo, April 2008 ("BUB")
2. Illegal Forest Clearance and RSPO Greenwash: Case Studies of Sinar Mas, December 2009 ("RSPO Greenwash")
3. Caught Red Handed, March 2010
4. New Evidence Sinar Mas Rainforest and Peatland Destruction, April 2010
5. Powerpoint Presentation: Sinar Mas Continues Rainforest Destruction, April 2010

The verification exercise will aim to provide accurate, complete and contextual information to assess the issues identified in the above reports and identify gaps, if any.

The issues raised in the above reports would be verified against the relevant parts of:

- The prevailing laws and regulation in Republic of Indonesia.
- The Indonesian National Interpretation of RSPO Principles and Criteria.
- The Standard Operating Procedures of SMART.

1.2. Contextualizing the key issues

Since most of the issues raised in the REPORTS are complex, an important part of the verification exercise was to assess these issues in context. Contextualizing includes

1.2.1. Assessing relative as well as absolute occurrence of issues raised, for example the surface in absolute (ha) and relative (% of area/concession) of the area of development of peat, if found.

1.2.2. Patterns of occurrence of issues raised, for example the pattern of peat area (sporadic, compact, zonal etc), comparing the average size of each peat area compared to the size of the concession.

1.2.3. Recognizing the complexities of the Indonesian legal system, including the chronology of decrees, possible difference of interpretation between national laws and regional decrees and between decrees of different ministries.

1.2.4. Assessing findings in the perspective of the capacity of prevailing tools commonly used and accepted in the industry, for example, soil studies conducted earlier using acceptable measurement tools under limited ground accessibility should be interpreted under those constraints and not discounted.

1.3. Team Members and Qualifications

To achieve the above objectives, the exercise assembled a multinational team of certifiers, auditors and researchers. By doing this, The IVEX Team has attempted to combine domain expertise, understanding of local laws and context, academic and scientific rigour and structured audit discipline. These have been applied to perform the verification exercise and produce the verification report.

For all Greenpeace claims on environmental issues, The IVEX Team extended its verification to ALL the eleven concessions covered in the field visit. The field visits were conducted from 17 to 22 May 2010 and 31 May to 8 June 2010 in Central and West Kalimantan respectively.

All persons mentioned below have declared that they have no conflict of interest, i.e. any consulting or purchasing, with the company or companies under assessment, their major shareholders, or Greenpeace.

1.3.1. BSI Group

Founded in 1901 as the Engineering Standards Committee, BSI Group is now a leading global independent business services organization providing standards-based solutions in more than 140 countries. BSI

- develops private, national and international standards
- certifies management systems and products
- provides testing and certification of products and services
- provides training and information on standards and international trade and
- provides performance management and supply chain management software solutions

BSI was one of the first Certification Bodies approved by RSPO to do RSPO certification audits.

Allan Thomas holds a tertiary qualification in commerce and accounting from Wollongong University in 1973 and has more than 18 years experience in systems management and auditing of large organisations in construction, forestry, agriculture, manufacturing and in private and Government sectors both in Australia, South East Asia and the South Pacific. He has performed over 100 comprehensive audits of management systems throughout the Palm Oil industry including Occupational Health and Safety, Environmental and Quality Management Systems. He has also advised companies on the implementation of OHS in the Oil Palm Industry. He has worked in Indonesia, Malaysia and Solomon Island (SI) in the Oil Palm industry. He has worked closely with RSPO in developing an audit checklist for the Principles and Criteria and developed an audit methodology. He also performed the first base line assessment of the applications of the P&C. He is a strong advocate of environmental, safety and social accountability

Allan is also Lead Environmental Auditor (ISO 14001) with IRCA, A Lead OHS Auditor (OHSAS 18001 & AS 4801) with IRCA, a Lead Quality Auditor (ISO 9001:2008) with RABQSA and also an accredited Heavy Vehicle Auditor. He has also implemented strategies for implementing and maintaining SA 8000. Allan has also been appointed a Federal Safety Officer by the Australian Commonwealth Government.

Dwi Rachmat Muhtaman holds a Masters Degree in Public Administration as well as a Degree in Animal Husbandry, specialising in Social Economics. For the last more than 15 years, he has been included as the social expert on several certification forest audits/assessments for both plantation and natural forest concessions in Kalimantan, Sumatera, Sulawesi and Java. He has been involved in more than 30 forest and product certification assessments since 1996-2007 in more than 25 forest management concessions. For the last five years, Dwi has been participating in variety of oil palm plantation assessment for IFC (International Finance Corporation) Performance Standards, RSPO standards and HCV identification and Social

Impact Assessment (SIA), and Café Practices verification program (Indonesia and Papua New Guinea). He has been working with more than 25 companies of the major oil palm companies including Lonsum Group, Wilmar Plantation International Group, Musim Mas Group, IOI Group. He has been involved in RSPO audit in Johor, Sabah, Sarawak (Malaysia) and Indonesia. He has a good network among NGO communities and forest private sectors. He is auditor for chain of custody assessment of forest product industries in more than 20 wood industries. He is also an independent consultant for WWF Indonesia PFTN/Nusa Hijau for wood industries and forest management units.

Iman Nawireja has combination of a BSc in Agriculture and Resource Economics from one of the most reputable universities in Indonesia, further Master in Communication, and now pursuing Doctoral degree in Rural Sociology provides extensive and multi-disciplinary capabilities. He is also member of RSPO Indonesian Smallholders Working Group (INA SWG). He has assisted with field studies on socio-economic aspect of agriculture, effect of resources development projects on farmer and community welfare, health status, and social change, environmental and social assessments of 8 oil palm projects (total of 102 consulting days) during the past 6 years. He has assisted with conducting audits of oil palm plantation companies against the RSPO P&C in Indonesia and Malaysia.

Tom Diwai Vigus holds a BSc Forestry (Hons) in Forestry, graduating from the University of Wales (Bangor) in 1970. He has 40 years practical and teaching experience in the areas of tropical forestry, environment, conservation and socio-economics of logging and agricultural development in the Pacific Islands, particularly Papua New Guinea (PNG) and the Solomon Islands. His key research field is the effects of industrial logging on the ecology of tropical rainforests and during his research from 1981, whilst a Senior Lecturer at the University of Technology in Lae, PNG, to 1995, whilst working on an AusAID project he developed a technique he coined "Reforestation Naturally" to enhance the speed of regeneration of heavily logged forests collaborating with local villagers; this has been endorsed by the PNG Forest Authority as one of their major thrusts to establish sustainable logging. In April 2003, he was engaged by the PNG government as Field Team leader/Professional Forester in the most extensive field and desktop audit ever undertaken of existing large scale logging operations in PNG, the Independent Review of Existing Logging Projects, completing 14 in depth reports and contributing to the final report which contained recommendations for all stakeholders to move towards sustainability in the PNG Forestry Sector.

1.3.2. Control Union Certifications

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

David Ogg has prepared and implemented the systems for Control Union Certifications for the auditing, evaluation and awarding of RSPO certificates to palm oil mills and their supply base and for the RSPO Supply Chain Certification Systems. He has developed training manuals and presentations for palm oil growers and processors and has trained the auditing teams. David has carried out audits covering in excess of one million ha of oil palm, including group schemes. Audits of at least 100 palm oil mills and downstream processes such as refineries, bio-facilities, diesel plants and storage. Coordinator and principle technical expert for the development of components of the RTRS Principles and Criteria Certification system and RTRS field test support program. Prior to joining CUC in August 2006, David set up and managed the largest group schemes in the world for forest management and chain of custody in accordance with the Forest Stewardship Council rules and became a fully accredited certification body in his own right. He is a Fellow of the Institute of Chartered Foresters.

Senniah Appalasamy holds MBA in Human Resource Management and BSc in Resource Economics majoring in Agriculture Resource Management from Agriculture University of Malaysia. He has extensive experience in the palm oil industry and has been involved in plantation management for more than 10 years. He was a Quality Assurance Manager in food and beverage industry for 10 years. During these 20 years, he has been vastly involved in the implementation of Environment and Quality Management System, Food Safety and Occupational Safety & Health. He has been trained and qualified as ISO 9001:2008 Lead Auditor. For the past two years, he has been involved in certification assessments and verifications with various standards, which includes RSPO P&C, RSPO SCCS, GMP B2 and GLOBALGAP (Fruit, Vegetable and Aquaculture). Senniah Appalasamy has conducted over 50 system audits and verification assessments for the past two years.

1.3.3. Expert from Faculty of Forestry, Bogor Agricultural Institute (IPB)

Bambang H. Saharjo is a leading expert in the field of forest protection and fire ecology. He has worked with various organizations as a forest fire expert. He was the WWF-Indonesia Forest Fire Expert in 1999 and was also a team member for the Indonesian Government Regulation in 2001. Prof. Saharjo is a prolific researcher and has written numerous publications focusing on fire ecology, forest fire prevention, fire impact and environmental destruction due to illegal logging. Prof. Saharjo holds a PhD in Forestry from Kyoto University in Japan.

Yanto Santosa has over 25 years of experience in the area of agricultural and forestry. He currently holds several top teaching positions at IPB (Bogor Agriculture Institute), the internationally recognized state university focused on tropical agriculture and life science. He was the Director of Tropical Biodiversity Research Centre of IPB and also the Head of the Indonesian Wildlife Preservation Communities. Dr. Santosa has written several publications on biodiversity and forest conservation. He also held position as the Education and Cultural Attaché of the Indonesian Embassy in France between 1999 and 2004, led the steering committee for the Biodiversity Conservation Program between Indonesia and Malaysia during 1997 to 1999 and was a guest lecturer at two French universities, Universite de Bordeaux III and Universite d'Aix-Marseille III until 2004. Dr. Santosa holds a PhD from Universite Paul Sabatier (Toulouse III) in France.

1.4. Methodology

The methodology used in assessing the issues identified in the REPORTS, is outlined below.

1.4.1. Chronological tracing of the application and approval of the relevant licences;

1.4.2. Historical analysis of land use and land cover in all of concession areas. The analysis was targeted to identify previous activities carried out in areas covered in SMART estates. Information on history of land cover is very important to understand land cover conditions before it was acquired and compensated by SMART which further converted into oil palm plantation;

1.4.3. Chronological assessment of field activities since land release compensation, land preparation and planting. Assessment was aimed to get clarity upon the time frame and work volume that has been conducted and will be completed especially work related to land release compensation, land preparation and planting;

1.4.4. Analysis of peat depth distribution map and re-measurement of peat depth through sampling by using a special drill for identification of peat depth; and soil analysis;

1.4.5. Analysis of the overlap between the 2006-2007 hotspots distribution map (2008-2009 for Kapuas Hulu) with maps of land acquisition development process;

1.4.6. Estimation of the timber potential of forested area through vegetation analysis with plots established through sampling;

1.4.7. Observation of wild-life in forested area or conservation area by combination of tract and point method (along 1-2 km of observation path) in conservation area of PT Binasawit Abadipratama (BAP), KPC, and PIP to understand the presence of Orang-utan and other biodiversity;

1.4.8. Interviews or consultation with related the head of provincial services, e.g. Forestry Department, Agriculture Department and Environment Agency, head of National Park and related local government leaders (Bupati and other department at district level) and local community representatives;

1.4.9. Literature review to relevant and applicable laws/regulations, text books, research reports and/or SEIA documents in order to have rigorous theoretical foundations and regulations related to claims to be verified;

1.4.10. Field audits against RSPO Principles and Criteria which relate to the claims being verified;

1.4.11. Review of RSPO Rules particularly in relation to organisations with multiple companies and how this affects the RSPO certification process.

1.5. Abbreviations

AMDAL	Analisis Mengenai Dampak Lingkungan – see EIA
ANDAL	Analisis Dampak Lingkungan – Environmental Impact Asessment
BRC	British Retail Consortium
BSI	British Standards Institution
COC	Chain of Custody
CU	Control Union
CUC	Control Union Certification
DPPL	Dokumen Pengelolaan dan Pemantauan Lingkungan Hidup – Environment Management and Monitoring Document
EIA	Enviromental Impact Assesment
EU	European Union
EUREPGAP	Euro-Retailer Produce Good Agricultural Practices
FAO	Food & Agriculture Organization
FSC	Forest Stewardship Council
FSC FM	Forest Stewardship Council Forest Management
GlobalGAP	Global Good Agricultural Practices
GMP	Good Manufacturing Practice
GTP	Good Trading Practice
GOTS	Global Organic Textile Standard
HACCP	Hazard Analysis and Critical Control Point
HGB	Hak Guna Bangunan (Building Use Title)
HGU	Hak Guna Usaha (Land Use Title)
IPB	Institut Pertanian Bogor – Bogor Agricultural Institute
IPK	Ijin Pemanfaatan Kayu (Timber Utilization Permit)
ISO	International Organisation for Standardization
IUP	Ijin Usaha Perkebunan (Plantation Business Permit)
IUPHHK	Ijin Usaha Pengusahaan Hasil Hutan Kayu
IUCN	International Union for Conservation of Nature
OE	Organic Exchange
OSH	Occupational Safety and Health
OSHAS	Occupational Safety and Health Assessment Scheme
P&C	Principles and Criteria
PEFC	Programme for the Endorsement of Forest Certification
RPL	Rencana Pemantauan Lingkungan Hidup – Environmental Monitoring Plan
RKL	Rencana Pengelolaan Lingkungan Hidup – Environmental Management Plan
RSPO	Roundtable on Sustainable Palm Oil
RSPO NI	Roundtable on Sustainable Palm Oil National Interpretation
RSPO P&C	Roundtable on Sustainable Palm Oil Principle & Criteria
SA8000	Social Accountability 8000
SEMDAL	Studi Mengenai Dampak Lingkungan Hidup
SCCS	Supply Chain Certification System
SEL	Studi Evaluasi Lingkungan (Environmental Evaluation Study)
SIA	Social Impact Assessment
SOP	Standard Operating Procedures
UKL	Upaya Pengelolaan Lingkungan – Environmental Management Effort
UNFCC	United Nations For Climate Change
UNEP	United Nations Environmental Program
UPL	Upaya Pemantauan Lingkungan – Environmental Monitoring Effort
USDA	United States Department of Agriculture
WHO	World Health Organization
WWF	Worldwide Fund for Nature

2. Literature Review

The REPORTS raise concerns related to six issues:
1. Planting in peat and deep peat
2. Deforestation, destruction of Orang-utan habitat and High Conservation Value areas
3. Clearing forest land and/or logging without permits
4. Clearing land by burning
5. Causing social conflicts
6. Greenwashing using RSPO membership

For relevant issues, this chapter sketches the context, background and legal requirements, based on independent, scientific literature and observations from experts. In addition, the literature review identifies relevant RSPO requirements as a reference for best management practices. In particular, it included the RSPO National Interpretation, which is drafted by a multi-stakeholder working group, field-tested, consulted publicly, and endorsed by the RSPO[1]. Where the current legal requirements are more precise, the RSPO requirements are adapted to include the legal requirements.

Based on the literature review, it then identifies key verifiers that balance legal requirements and best management practices to facilitate field verification and reporting.

2.1. Deep Peat

Of the tropical peat land forests, the majority are situated in Indonesia. By and large, peat lands are found in Sumatra, Kalimantan and West Papua. Undisturbed, primary peat swamp forests sequester carbon through accumulation in peat and biomass. Drainage and degradation of peat forests result in carbon emissions, mainly through increased decomposition of the peat. In general, deeper drainage depth causes higher CO_2 emissions. However, the exact impacts of drainage on decomposition – and hence CO_2 emissions – are under dispute[2].

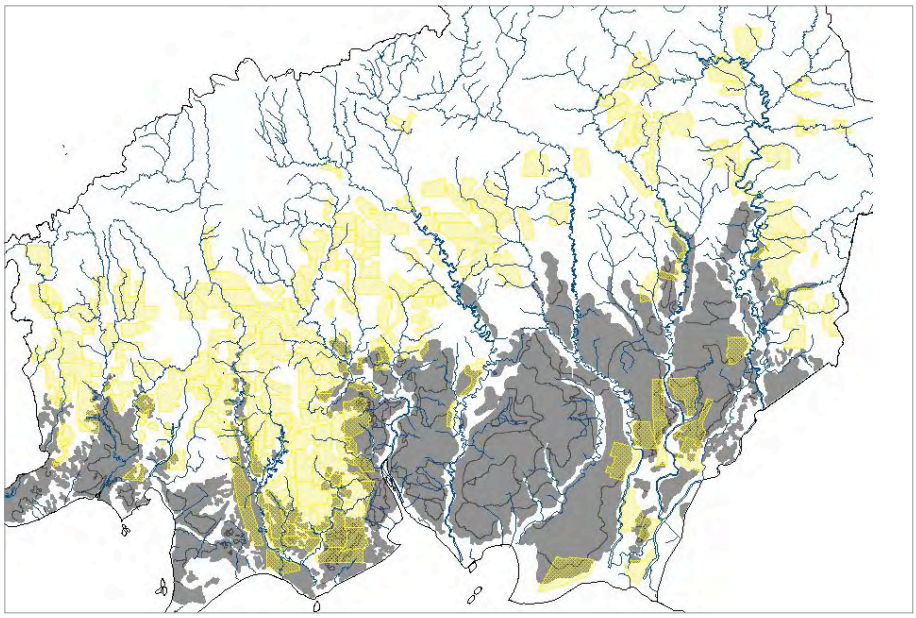


Image 2.1 Peat distribution in Central Kalimantan: relative few oil palm plantations (yellow) are situated on peat lands (black); data on plantations and peat courtesy of Greenpeace.

With regards to legislation on (deep) peat, the REPORTS refer to Presidential Decree 32/1990, Minister of Forestry and Plantation Decree 376/1998, and Minister of Agriculture Decree 14/2009. Other relevant legislation include:

- Presidential Decree 32/1990[3] regulates the identification of 'protection areas'. It requires that these areas – with the purpose to protect the environment – are identified/gazetted (Article 1, Point 1) by the provincial government. These areas are to be gazetted through a provincial decree (Peraturan Daerah Tingkat I), including a map (minimum scale 1:250.000) and an exposition (Article 34, Point 1), within two years after this decree (Article 40, Point 1). Article 10 defines the criteria to gazette upland 'peat area' as 'Protection Areas', with the purpose to support downstream areas (Article 4).
- Minister of Forestry and Plantation Decree 376/1998[4] .This ministerial decree states that "…. State Forest Land with deep peat (2 m or more) is considered not suitable for oil palm."
- Government Decree 26/2008 "…. identifies 'Protection Areas' (Article 52), including 'peat area' defined as "peat with 3 meters depth or more, located upstream (of river) and swamp area" (Article 55), Guidance (Article 97)."
- Minister of Agriculture Decree 14/2009[5] reconfirms Presidential Degree 32/1990, and sets strict regulations for the use of peat lands in plantations.

An additional piece of legislation for Central Kalimantan:

Presidential Decree 80/1999, (article 1) on peat in Central Kalimantan (unofficial translation as follow):

> *(3) Land on the shallow peat area with the depth less than 3 meters on the peat development working area can be used for forestry, agriculture, fishery and plantation cultivation, the development and management of those mentioned will be functionally operated under Central Kalimantan Provincial Governor.*
>
> *(4) The area with peat wet land with the depth more than 3 (three) meters and the area for conservation at the peat development working area will be used for conservation that the management will be conducted by Forestry and Plantation Department.*

The RSPO National Interpretation is less rigorous than the legislation, and only requires that peat lands are identified, mapped and managed with care[6]. The RSPO Certification Systems contains no specific requirements for peat.

Verifiers related to this issue:

Verifier	Description
PEAT1	Peat lands are identified, inventoried and mapped
PEAT2	Land preparation only occurs on mineral soil or shallow peat with a substrata of clay without pyrite/quartz sand
PEAT3	A documented water management programme for peat lands is in place

2.2. Forests, Orang-utan Habitats and High Conservation Value (HCV) Areas

2.2.1. High Conservation Value Forests (HCVF)

HCVF is a concept that aims to maintain and enhance extraordinary and exceptional forests for reasons of biodiversity and livelihoods. HCVF emerged around 1992 and was formally introduced by the Forest Stewardship Council in 1999. The RSPO included HCVF in 2005. Albeit rather abstract, there's international agreement over six attributes of HCVF (see text box 2.1 & 2.2).

Both FSC and RSPO initially provided little guidance on the concept. Independent initiatives on HCV(F) emerged and proliferated, with guidelines and toolkits by ProForest, the HCV Resource Network, the Rainforest Alliance, The Nature Conservancy and the

Box 2.1. HCV Definitions (FSC, HCV Network & RSPO)

HCV1: Forest areas containing globally, regionally or nationally significant concentrations of biodiversity value (e.g. endemism, endangered species).
HCV2: Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.
HCV3: Forest areas that are in or contain rare, threatened or endangered ecosystems.
HCV4: Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).
HCV5: Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).
HCV6: Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Box 2.2. HCV Definitions (National Toolkit)

HCV1: Areas with Important Levels of Biodiversity
HCV2: Natural Landscapes & Dynamics
HCV3: Rare or Endangered Ecosystems
HCV4: Environmental Services
HCV5: Natural Areas Important for Meeting the Basic Needs of Local People
HCV6: Areas Important for Maintaining the Cultural Identity of Local Communities

World Wide Fund for Nature.

In Indonesia, HCVF is dynamic and ambiguous, with varying results. HCV(F) assessments have been performed on many management units, but few results are publicly available. A brief history illustrates this dynamic and ambiguity:

- In January 1999, FSC formally adopts HCVF as Principle nine[7], with the purpose to maintain and enhance extraordinary and exceptional (natural) forests for reasons of biodiversity and livelihoods. It defines six different social and environmental attributes of high conservation values (see text box 2.1. and 2.2.).
- In August 2003, The first HCVF Toolkit for Indonesia[8] is released. This toolkit is limited to 'forests' and uses attributes similar to those identified by the FSC.

- In November 2004, the RSPO formally adopts HCV (Habitats) as Criterion 5.2 and Criterion 7.3[9], to protect remaining natural vegetation (including riparian areas, steep slopes, forest fragments, conservation set-aside/reserve areas). The HCV attributes defined are similar to those of the FSC.
- In September and November 2007, The final draft RSPO National Interpretation[10] and the RSPO National Interpretation[11] directly link identification of HCV(F) to the EIA[12]. The ambiguity over the similarities and differences between EIA and HCV(F) are not publicly addressed by the RSPO.
- In May 2008, The final RSPO National Interpretation[13] states:
  - The HCV requires appropriate training and expertise, and must include consultation with local communities, particularly for identifying social HCVs.

    HCV conducted according to the National Interpretation of the HCV or according to the Global HCV Toolkit if a National Interpretation is not available[14].
  - HCV is identified as a forest area that contains critical or outstanding environmental and social values.
- In June 2008, a revised HCV Toolkit for Indonesia[15] is released. This toolkit was approved through extensive stakeholder consultation, and endorsed by the HCV Resources Network[16] (but not yet by the RSPO). It revised (instead of interpreted, see bullet point May 2008) the HCV attributes (see box 2.1 and box 2.2). This toolkit refers to HCV Areas, but is ambiguous over the nature of these areas and defines HCV as something that has high conservation value[17]. It furthermore went beyond forests and tried to include non-forest areas containing high conservation values. The toolkit furthermore introduces (new) models and GIS datasets to identify HCVF.
- In September 2009, the RSPO Indonesian Working Group presented the first draft version of guideline on Management and Monitoring of High Conservation Value for Sustainable Palm Oil Production in Indonesia.
- In March 2010, the RSPO approves the first dozen HCV Assessors. Effective now, HCVF can now be assessed by personnel with 'appropriate training and expertise' (see bullet point May 2008), but human resources remain very limited.

The RSPO National Interpretation and the RSPO Certification Systems prohibit conversion of HCVF after November 2005[18]. The first further requires that oil palm managers identify, conserve, monitor and evaluate HCVF. The HCVF Toolkit covers general methods to identify HCVF (such as peat[19], forest and Orang-utan), but contains no specific requirements regarding conservation of thereof. Thus, it is the daunting task of the HCVF Assessments at the various sites to identify HCVF and activities to conserve them.

The REPORTS are particularly concerned with Peat Forests[20] and Orang-utan Habitat[21]. These topics are further discussed below.

Verifiers related to this issue:

Verifier	Description
HCVF1	HCVF are identified, inventoried and mapped
HCVF2	HCVF Assessments assure that no replacement of HCVF occurred after November 2005
HCVF3	HCVF management programme is in place
HCVF4	Key species (Orang-utan) and habitats (peat forests) are monitored and conserved

2.2.2. Orang-utan Habitat

Orang-utan occur in a broad range of habitat, from swamp forests and lowland dipterocarp forests to upland forests up to some 1800 m above sea level[22]. It appears to easily adapt to disturbances and can well survive in degraded forests[23]. It is an omnivore that lives on leaves, buds, insects, flowers, eggs, small vertebrates (gecko, squirrel, small sloth), epyphytes, and lianas. Most time they spent feeding in fruit trees of 20 – 30 meters high[24]. However, they prefer forests with big trees (35–50 meters high) to build nests, and little ground cover[25].

Two main populations Orang-utan remain, in Borneo and Northern Sumatera. Population estimates of the Borneo Orang-utan varied strongly, between 1,000[26] and 160,000[27] individuals. The most recent estimates lie around 60,000[28] individuals. The majority of these Orang-utan are found spread throughout areas north of the Kapuas River (West Kalimantan and Sarawak).

Population estimates of Orang-utan in Central Kalimantan are not available. However, a population and habitat viability model suggest the Orang-utan may have widely ranged in 2002. (The data behind the Kalimantan Orang-utan distribution map comes from: Meijaard, E. & Dennis, R.A. (2003) Assessment of the extent of the remaining habitat for Borneon Orang-utan, based on 2002 forest cover data. Internal Report, February 2003. (2002 forest/ non-forest classification kindly provided by Doug Fuller of George Washington University, in association with The Nature Conservancy; Prior to the 2002 fires).

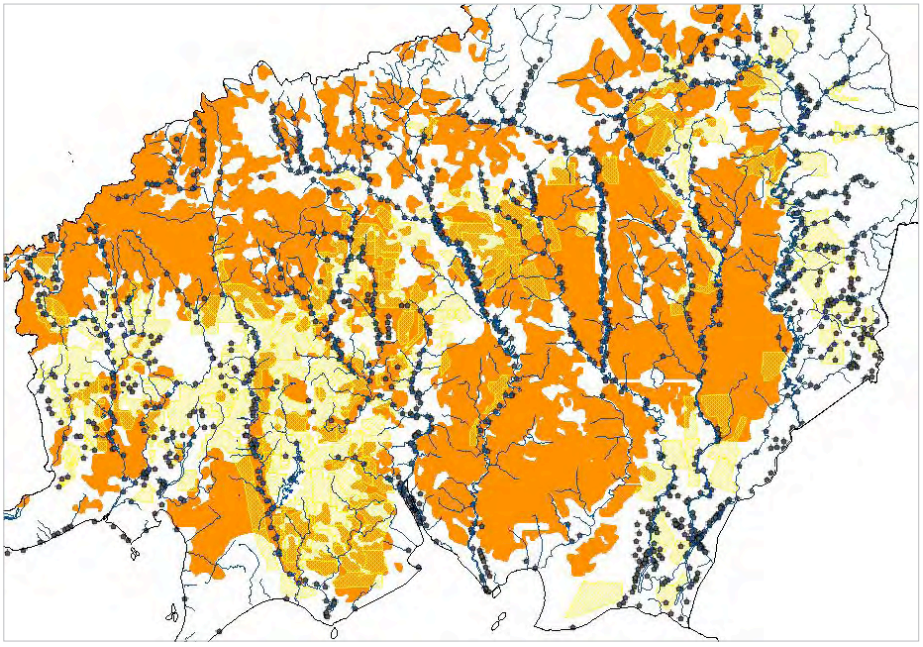


Image 2.2. Possible Orang-utan habitat (2002) in Central Kalimantan: possible Orang-utan habitat (orange) shows weak relation to oil palm plantations (yellow); data on plantations and Orang-utan courtesy of Greenpeace, data on forest cover courtesy of Badan Planologi, Tropenbos and WWF.

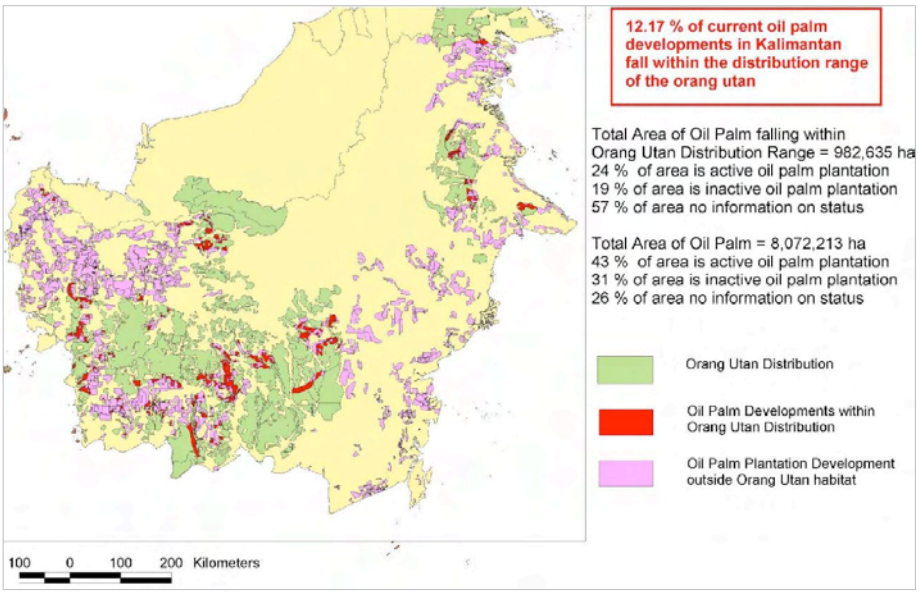


Image 2.3 Overlap of Orang-utan distribution and oil palm boundaries for Indonesian Borneo[29] (Meijaard 2009)

Key threats to the Orang-utan are deforestation and hunting (for food and trade). Changes in forest area function into APL (other utilization area) conduct without referring to applicable law and regulation hugely impacted on Orang-utan population and habitat decrease.

Two pieces of legislation protect the Orang-utan in Indonesia: Law 5/1990 and Government Regulation 7/1999 stipulate the protection of wildlife habitat, populations and individual animals, regardless of where they are located in Indonesia (i.e. in protected areas and outside, including in homes, gardens and estates). They strictly prohibit catching, injuring, keeping, transporting and trading Orang-utan (parts).

Neither the RSPO National Interpretation, nor the RSPO Certification Systems contains requirements specific to the conservation of Orang-utan (other than HCVF).

Verifiers related to this issue:

Verifier	Description
HCV1	HCV are identified, inventoried and mapped
HCV2	HCV Assessments assure that no replacement of HCVF occurred after November 2005
HCV3	HCV management programme is in place
HCV4	Key species (Orang-utan) and habitats (peat forests) are monitored and conserved

2.3. Permits

The REPORTS express concerns over the legal compliance[30], with regard to permits and related requirements[31]. The RSPO National Interpretation requires that companies comply with relevant legal requirements[32], as listed in Annex 1. The RSPO Certification Systems only speaks in general terms about legal compliance, but stipulates that the National interpretation should include applicable legal requirements[33].

2.3.1. Forest Permits

The REPORTS refer to illegalities concerning timber cutting permits[34]. This permit is required for parties that wish to sell products originating from forest areas, such as timber but also non-timber forest products. This permit is officially called the Timber Utilization Permit, but can best be described as a permit for forest products, not a timber cutting permit.

Relevant legislation on the timber utilization permit include:

- Minister of Forestry Decree 382/2004 stipulates this permit is required to utilize timber and non-timber forest products from converted State Forest Lands.
- Minister of Forestry Decree 58/2009 details that a full inventory of standing timber over 30 cm diameter is to be performed by the forestry service. After the due fees (timber stand restitution, forest resource commission and reforestation funds) have been paid, the permit is released. In general, this permit is not required if the standing timber (more than 30 cm diameter) is less than 50 cubic meter per timber utilization permit.
- Ketapang Regency Decree 247/2001[35] further stipulates that this permit requires a joint verification by the Plantation and Forestry Services and a recommendation letter from the Regency head of the Plantation Service.

The RSPO National Interpretation and the RSPO Certification Systems contain no specific requirements regarding the Timber Utilization Permit.

Verifiers related to this issue:

Verifier	Description
FOREST1	Plantations are not located on State Forest Land
FOREST2	Remain if (peat) forests are identified, inventoried (5% cruising) and mapped
TIMBER	If forest products are utiliez by the company, Timber Utilization Permits are obtained

2.3.2. Plantation Permits

Prior to developing areas for oil palm estates, a company must obtain a number of relevant permits, including the Site Permit (IL; Izin Lokasi), the Plantation Business Permit (IUP; Izin Usaha Perkebunan), and other 13 requirements. In addition, the Environmental Impact Analysis (EIA) is a key requirement in many plantation permits. The requirements regarding these permits and requirements is often confusing, and sometimes contradicting. Hence, the REPORTS question the order in which these permits and requirements are obtained[36].

Environmental Impact Asessment (AMDAL)[37] is not permit but requirement for getting permit. It was introduced in 1982 with the passing of Act No. 4 on Environmental Management. It was implemented for development of sector activities with passing of Government Regulation No. 29/1986 that sets out the general procedures for carrying out the AMDAL and regulated ongoing activities through SEMDAL[38]. Government Regulation No. 51/1993 which later replaced by the Government Regulation No. 27/1999 only regulated planned activity through AMDAL. UKL/UPL was stipulated since the enactment of Government Regulation No. 51/1993 through MOE Decree No KEP-12/MENLH/3/1994; later replaced by MOE Decree No 86/2002 which that set out general procedure for carrying out UKL/UPL. For company operated without approved AMDAL or UKL/UPL or found to be not complying with other Indonesia environmental requirement must undergo an environment audit by the Ministry of Environment, as required by Ministry of Environment (MOE) Decree No 12/2007. In 2007, MOE stipulated DPPL, an opportunity to companies operated without approved environmental management document (AMDAL or UKL/UPL document) to comply with environment requirement.

Today, there are six sets of requirements regarding the EIA: (1) the SEMDAL (Studi Evaluasi Dampak Lingkungan Hidup)[39] for the period 1982-1993, (2) the AMDAL (Analisis Mengenai Dampak Lingkungan Hidup) after 1993 concerning more than 3,000 ha, (3) the UKL/UPL (Upaya Pengelolaan Lingkungan Hidup dan Upaya Pemantauan Lingkungan Hidup) after 1993 concerning <3,000 ha, (4) the DPPL (Dokumen Pemantauan dan Pengelolaan Lingkungan Hidup) from September 2007 to September 2009, (5) the Audit Lingkungan Wajib, and (6) Minister of Environment Decree No.14/2010. Project without approved environmental document (e.g.) SEMDAL, AMDAL, and UKL/UPL) must have an approved either DELH or DPLH. In this regards, DELH is AMDAL replacement while DPLH is UKL/UPL replacement. The government provides this opportunity no later than 3 October 2011. For the oil palm companies under discussion, the AMDAL, the DPPL and the Environmental Audit are of relevance. Key legislations in a nutshell:

- Government Decree 27/1999 defines the general procedures for carrying out the AMDAL, or the Environmental Impact Assessment. It requires preparing an Environment Impact Analysis[40], as well as managing[41] and monitoring[42] of relevant social and environmental impacts.
- Minister of Environment Decree 30/2001 stipulates that companies operating without AMDAL or UKL/UPL or found not complying with other Indonesia regulation must undergo an environment audit by the Ministry of Environment.
- Minister of Environment Decree 12/2007 acknowledges that obtaining an EIA remains an issue and provides companies an opportunity to prepare a DPPL. The opportunity was valid until September 2009 (two years only). Companies operating without an approved AMDAL, or violating environmental requirements, must undergo an environment audit by the Ministry of Environment.

The relevant national legislation on the Plantation Business Permit clearly stipulates that the EIA must be obtained prior to the Plantation Business Permit:

- Plantation Act 18/2004 stipulates that companies must prepare an EIA (AMDAL or UKL/UPL), implement the management, monitoring and reporting as set forth in the EIA, or the Estate Permit may be terminated.

- Ministry of Agriculture Decree No. 26/2007 identifies a dozen documents required for applying for an estate permit, including an approved EIA.
- Ministry of Agriculture Regulation No. 229/Kpts/KB.550/4/91 date 25 April 1991 and 753/Kpts/KB.550/12/93 dated on 6 December 1993.
- Ministry of Agriculture Regulation No. 786/Kpts/KB.120/10/96 dated on 22 October 1996.

However, while de jura the national legislation must be complied with, de facta the local regulations take precedence with regard to permits and related requirements. For instance, in Ketapang Regency companies must comply with the local legislation:

- Ketapang Regent Decree No. 247/2001 stipulates that companies must obtain a Plantation Business Permit prior to approval of the EIA. The Provincial Forestry Service, the Provincial Estate Service and the Provincial Environmental Bureau agree that this is not in accordance with national legislation, but ultimately the responsibility of the Regent.

The RSPO National Interpretation requires that permits are obtained in accordance with the relevant (local) procedures[43], and that EIAs are documented and revised when necessary, and regularly reported[44]. The RSPO Certification Systems contains no specific requirements regarding permits or EIA.

Verifiers related to this issue:

Verifier	Description
EIA	The Environmental Impact Analysis is approved by the relevant authorities
PERMIT1	Relevant permits (Location Permit, Plantation Business Permit, and Land Use Title) or dispensation are obtained prior to land preparation
PERMIT2	Environmental impacts are regularly monitored and reported to the authorities

2.4. Land Clearance by Burning

The REPORTS raise serious concerns over the use of fire in developing oil palm plantations[45]. Fire has been part of the natural ecosystem in Indonesia for many thousands of years, and burning is a recurring part of the landscape.

The traditional use of fire in shifting agriculture systems in the tropics is well documented by researchers (for instance, Nye and Greenland, 1960). For instance, the 1982-1983 fires are believed to have originated from swidden agriculture (Wirawan 1993). In Borneo, farmers usually start clearing and burning their fields around September/October, with the intention of planting crops at the onset of the rainy season in November/December. Through burning, important minerals (including organic-carbon, phosphorus, magnesium, potassium, and sodium) become available for their crops.

These legal requirements related to fire prevention in a nutshell:

- Plantation Act 18/2004 requires a company to have equipment, infrastructure and emergency response system for fires during land clearing and/or land development. It furthermore stipulates that plantation implement a zero-burning policy during development;
- The EIA identifies this equipment, infrastructure and emergency response system in more detail.

The RSPO National Interpretation requires that companies have a zero-burning policy during land preparation, and adequate procedures and equipment for fire control[46]. The RSPO Certification Systems contains no requirements regarding fire (control).

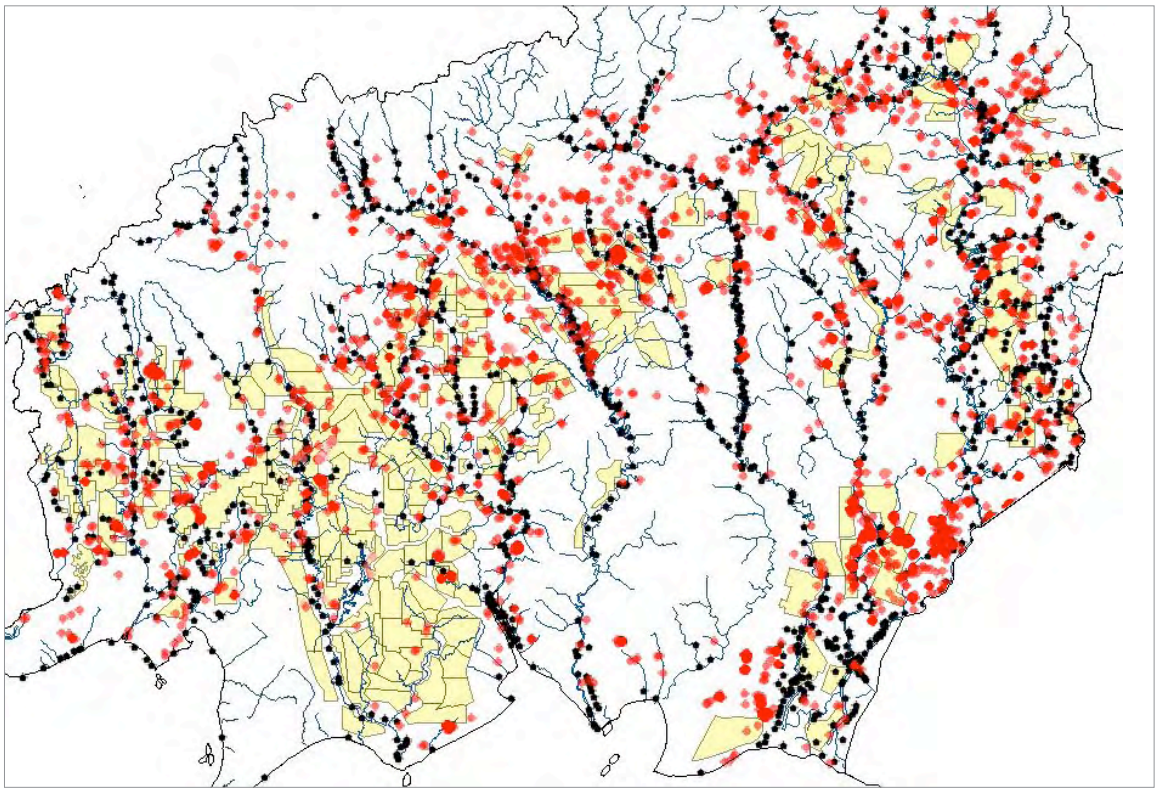


Image 2.4. Hotspots 2007 in Central Kalimantan: hotspots (red) show weak relation to oil palm plantations (yellow), but a strong relation to settlements (black) and rivers (blue); data on plantations and hotspots courtesy of Greenpeace.

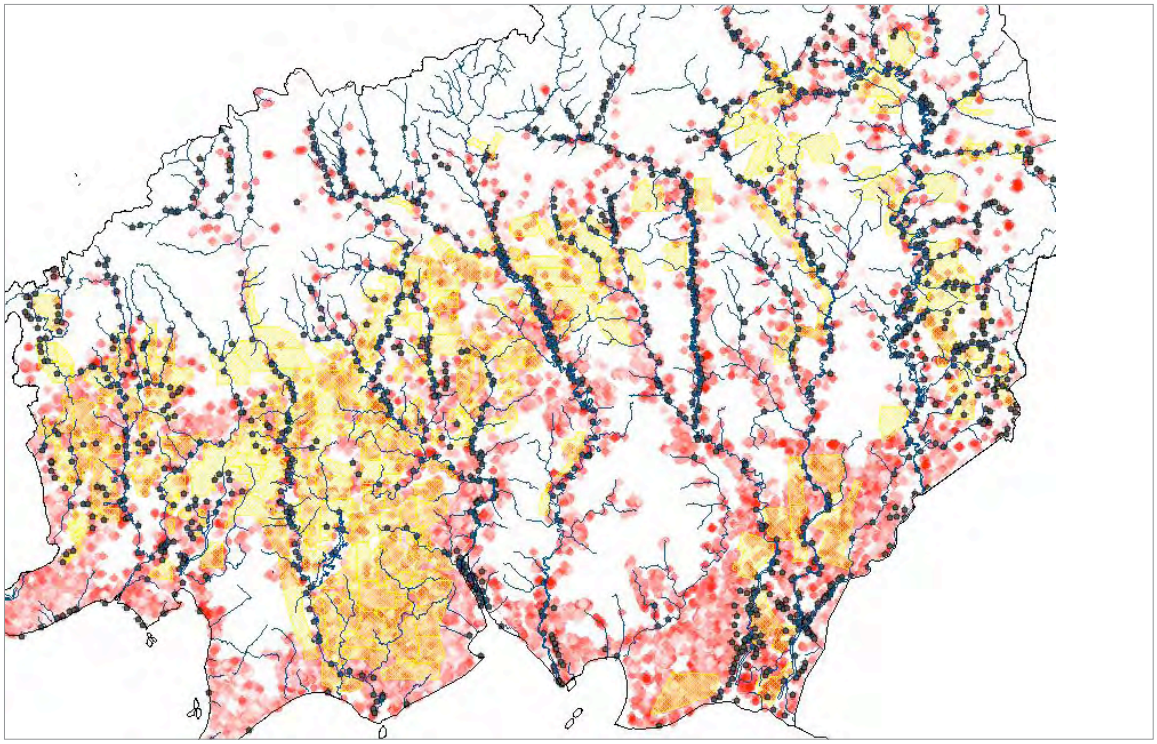


Image 2.5. Hotspots 2006 in Central Kalimantan: hotspots (red) show weak relation to oil palm plantations (yellow), but a strong relation to settlements (black) and rivers (blue); data on plantations and hotspots courtesy of Greenpeace.

Verifiers related to this issue:

Verifier	Description
FIRE1	A documented zero-burning policy for land preparation is in place
FIRE2	Fire equipment, infrastructure and emergency response system equals the EIA prescriptions
FIRE3	Fires and hotspots in/near the concession(s) are monitored and reported to the authorities

2.5. Key Milestones

Based on the literature review above, The IVEX Team identified the following key milestones to measure against:

Date	Milestone
Nov 2005	RSPO stipulates no conversion of HCV
Nov 2007	RSPO National interpretation links HCV Forests to EIA
April 2008	GP1 released (follow-up on report released November 2007)
Feb 2009	Indonesian legislation on deep peat in place
May 2008	RSPO National Interpretation
June 2008	HCV (Areas) Toolkit for Indonesia
Dec 2009	GP2 released
Jan 2010	RSPO New Plantings Procedures in place
Mar 2010	· GP3 released · First approved HCV Assessors by RSPO
Apr 2010	GP4, GP5 released

3. Field Verification

A summary of the description of the 11 companies (PTs) and their initial activity is provided table 3.1. This table presents the total hectarage of each concession as well as the planting area, together with the dates of first land compensation mechanism set up with the local owner.

Table 3.1. Description of Companies

No	Company Name	Area (Ha)	First Date of Compensation	First date of Land Preparation	Planted Area (Ha)
West Kalimantan					
Reg. Kapuas Hulu					
1	PT Kartika Prima Cipta (KPC)	19,200	2007 0°35'26,933"N, 111°57'16,829"E	2007 0°34'22,053"N, 112°02'22.053"E	2,376
2	PT Paramitra Internusa Pratama (PIP)	20,000	2007 0°26'13,760"N, 111°52'46,581"E	2007 0°26'56,451"N, 111°52'09,411"E	2,568
3	PT Persada Graha Mandiri (PGM)	19,750	2007 0°21'04,343"N, 111°44'55,787"E	2007 0°22'21,657"N, 111°45'16,843"E	3,228
Reg. Ketapang					
4	PT Agrolestari Mandiri (ALM)	22,300	2005 1°32'0.51"S, 110°27'8.84"E	2006 1°32'5.00"S, 110°27'20.73" E	8,194
5	PT Kencana Graha Permai (KGP)	11,000	2006 2°07'55.426"S 110°34'42.487" E	2007 2°08'01,807"S 110°33'48.943" E	6,143
Sub Total		**92,250**			**22,510**
Central Kalimantan					
6	PT Lestari Unggul Jaya (LUJ) LUJ is owned by a third party not related to GAR. It is managed by SMART	696	-	1995 2°33'10,494" S, 111°42'46,558" E	480
7	PT Satya Kisma Usaha (SKU)	6,950	1998 2°30'48,161" S, 111°38'53,380" E	1998 2°30'48,161" S, 111°38'53,380" E	2,406
8	PT Binasawit Abadipratama (BAP)	20,914	-	1996 2°23'13,389"S, 112°25'34,863"E	18,872
9	PT Mitrakarya Agroindo (MKA)	23,011	2005 2°12'36,61" S, 112°15'08.49" E	2005 2°13'03,39" S, 112°15'53.92" E	12,419
10	PT Tapian Nadenggan (TN)	24,407	1993 2° 27'11.741"S, 112° 05'12.020"E	1994 2° 27'11.741"S, 112° 05'12.020"E	22,291
11	PT Buana Adhitama (BAT)	14,300	2007 01° 56' 26.63" S, 112° 29' 22.53" E	2006 01° 56'48.24"S, 112° 28'33.21"E	1,278
Sub Total		**90,278**			**57,747**
Total		**182,528**			**80,256**

No 1 : Footnotes [47, 48, 49, 50, 51]
No 2 : Footnotes [52, 53]
No 3 : Footnotes [54, 55]
No 4 : Footnotes [56, 57, 58, 59, 60]
No 5 : Footnotes [61, 62]
No 7 : Footnotes [63, 64, 65, 66]
No 10 : Footnotes [67, 68]

3.1. Clearance and Planting on Peat Lands

3.1.1. West Kalimantan

The IVEX Team was provided with the soil maps of each estate indicating the location of peat soils as well as a recapitulation table per companies indicating the hectarage, year of land preparation and year of planting. The maps are based on the standard soil survey procedures as recommended in the soil survey manual (Soil Survey Manual 1993) combining satellite image analysis and a field survey (grid survey using auger and regular soil profile observation for each type of soil). In addition local management of estates, supported by the Research & Development (R&D) department of SMART did a detailed survey with a sampling of 1 profile sample per 5 hectares. These sampling points were observed using an appropriate auger for peat depth observation.

The IVEX Team decided:

- To check a significant number of sampling points to confirm the accuracy of the maps and observations provided by SMART. A total of 29 points were randomly observed throughout the companies. At each point, at least 1, but often several measurements were performed in order to get an accurate value of the depth of the peat (as significant spatial variation is frequently observed in peat depth), as well to identifying the substratum underneath the peat layer.
- In addition; The IVEX Team collected soil samples for laboratory analysis.

The results are:

- Table 3.2 shows that there are 836 ha of deep peat in Ketapang, including transmigration (568 ha), but also developed by SMART for plasma (114 ha), and nucleus (154 ha). In Kapuas Hulu, 494 ha of deep peat have been planted.
- Table 3.3 shows that, in Kapuas Hulu, a significant number of locations identified as peat soil in the map presented in the REPORTS (attributed to FFI) appears to be mineral soil.
- Soil analysis confirms this IVEX Team finding (Table 3.4).

Table 3.2. Detail of peat land preparation and planting (> 3 m) in West Kalimantan

Total Concession West Kalimantan (Ha):	Ketapang			Kapuas Hulu
Peat > 3 m	33,300			58,950
Year	Transmigration Planting (Ha)	Plasma Planting (Ha)	Nucleus Planting (Ha)	Planting (Ha)
2007	5	5	39	-
2008	147	21	50	41
2009	416	88	65	227
2010	-	-	-	226
Total:	**568**	**114**	**154**	**494**
% of total concession:	**1.71%**	**0.34%**	**0.46%**	**0.84%**

3.1.1.1. PT Kartika Prima Cipta (KPC)

Documents viewed:

- Sinar Mas Agribusiness and Food 2007a. Satuan Peta Tanah, Survei Tanah Tinjau Mendalam, Tahap 1, Areal PT Kartika Prima Cipta, Kab. Kapuas Hulu, Kalimantan Barat Sinar Mas Agribusiness and Food 2007.
- Sinar Mas Agribusiness and Food 2007b. Satuan Peta Tanah, Survei Tanah Tinjau Mendalam, Tahap 2, Areal PT Kartika Prima Cipta, Kab. Kapuas Hulu, Kalimantan Barat Sinar Mas Agribusiness and Food 2007.
- FFI 2009a. Penilaian KBKT PT Kartika Prima Cipta (KPC), Kecamatan Semitau, Nanga Suhaid dan Selimbau, Kabupaten Kapuas Hulu, Kalimantan Barat, Indonesia, Fauna & Flora International – Indonesia Programme, Februari 2009.
- FFI 2009b. Summary Peat Verification Report PT Kartika Prima Cipta (KPC), Kapuas Hulu Kabupaten, Kalimantan Barat, High Conservation Value Forest (HCVF) Assessment, October 2009.
- Summary Peat Verification Report, PT Kartika Prima Cipta (KPC), Kapuas Hulu Kabupaten, Kalimantan Barat, High Conservation Value Forest (HCVF) Assessment, October 2009
- Restoration progress peat land area of PT Kartika Prima Cipta (KPC), SMART 3 June 2006.

Interviews done:

- Views over peat at KPC diverge. The company's own peat maps, as well as the previous version of FFI's peat map show significant differences in area and depth of the peat. KPC is currently working with FFI to identify the errors in the various maps.
- To date FFI presented 4 successive maps regarding peat area: (1) a preliminary map with 7,225 ha peat, (2) a draft map with 3,004 Ha peat, (3) a draft map with 4,241 Ha peat and (4) a draft map with 2,413 Ha peat.
- The peat expert concluded that some of the disputed areas are NOT peat soils, but mineral soils.

Observations:

- SMART identified, inventoried and mapped 1,248 ha peat (2008) and 1,500 ha peat (2010).
- Method used by FFI provides only a rough indication of the peat. The initial inventory was extrapolated from 68 samples only. The second inventory de-classified several peat areas without any ground verification.
- SMART made a commitment not to clear any vegetation covering mutually agreed upon HCVF peat areas.
- Field verification confirms serious discrepancies in peat lands in the assessment.

Verification visit found some planted to oil palm was now uprooted and replaced with Shorea, spp e.g. block G-70, G-69, F-70, F-69, G-75, F-75, F-76, G-90 and G-91, due to FFI finding that the abovementioned area were deep peat. Verification to the presence and depth of peat on FFI' map, serious errors were found in the peat map of FFI table 3.3. Several laboratorium analysis of the selected samples on FFI map to support the finding is presented in table 3.4.

Table 3.3. Peat Verification at KPC

No.	Planting Block	Coordinate	Planting Years	FFI Finding	Verification Finding
1	G-91	0°34'33.531" N 112°03'07.61" E	Dec 2008	Peat < 3 m	Peat < 20 cm
2	G-91	0°34'33.531" N 112°03'07.61" E	Dec 2008	Peat < 3 m	Mineral Soil
3	G-91	0°34'32.962" N 112°03'13.614" E	Dec 2008	Peat > 3 m	Mineral Soil
4	G-91	0°34'32.921" N 112°03'15.953" E	Dec 2008	Peat > 3 m	Mineral Soil
5	Main Road MR GH-92	0°34'24.995" N 112°03'24.835" E	Not Planted	Peat > 3 m	Mineral Soil
6	G-92	0°34'25.283" N 112°03'24.529" E	Nov 2008	Peat < 3 m	Mineral Soil
7	H-98	0°33'56.42" N 112°04'24.947" E	Nov 2008	Peat < 3 m	Mineral Soil
8	H-99	0°33'56.23" N 112°04'26.163" E	Nov 2008	Peat < 3 m	Mineral Soil
9	H/I 95	0°33'51.564" N 112°03'53.278" E	Nov 2008 (sign board)	Peat < 3 m	Mineral Soil
10	H/I 96	0°33'51.564" N 112°03'53.278" E	Nov 2008	Peat > 3 m	Mineral Soil
11	F-78	0°34'58.050" N 112°o01'04.795" E	Oct/Nov 2008	Peat > 3 m	Mineral Soil
12	Forest belong to local people	0°34'57.056" N 112°01'05.066" E	Oct/Nov 2008	Peat > 3 m	Mineral Soil
13	F-75	-	Oil palm uprooted, replaced with Shorea, spp in 2010	Peat > 3 m	Mineral Soil
14	G-76	0°34'56.906" N 112°00'37.665" E	2008	Peat > 3 m	Mineral Soil
15	F-75	0°34'58.142" N 112°00'27.006" E	2010 (planted with Shorea, spp)	Peat > 3 m	Peat >5 m
16	G-75	0°34'54.030" N 112°00'27.006" E	2010 (planted with Shorea, spp)	Peat > 3 m	Peat >5 m
17	Main Road MR F-6	0°34'57.898" N 111°59'27.616" E	Not planted	Peat > 3 m	Mineral Soil

Table 3.4. Example of Soil Analysis (samples from KPC)

No. (*)	Soil Sample	Location	Texture			Walkley & Black
			sand	silt	clay	C-org
			(%)	(%)	(%)	(%)
2	4	MTNE Blok G 91.3	89.2	6.2	4.6	0,62
3	5	MTNE Blok G 91.2	83.7	11.2	5.1	0,80
4	6	MTNE Blok G 92.1	91.0	6.0	3.0	0.48

(*): refer to table 3.3

3.1.1.2. PT Paramitra Internusa Pratama (PIP)

Oil palm trees were found to have been cultivated in 13.8 ha of deep peat. (Coordinates: N00°27'43.3" E 111°52'00.6"). SMART explained that this was done in spite of strict company instructions and an estate manager was suspended following this.

3.1.1.3. PT Agrolestari Mandiri (ALM)

ALM is divided into estates KYNE, PKWE, KYNA, SKKE and NTYE. The area comprises 4,984 (22.3 %) ha of peat area, of this 2,609 ha (11.7 %) is reforestation of peat area. Planted peat found total 1,531 ha, consisting of nucleus 849 ha, plasma scheme 114 ha and transmigration program 568 ha. In deep peat of 836 ha consisting nucleus 154 ha, plasma 114 ha and transmigration program 568 ha.

Observation

Based on the field measurement of peat depth, it was also found peat land with depth more than 4 meters at R-9 block located near a tree that had been slashed as reported by Greenpeace at coordinate 1° 36', 58" S and 110°23'49.87" E. This area opened in March 2010 and no longer to be planted even though cover crops that are still in the young age were found in the first layer. Near the location and still located in the R-9 block, it was also found deep peat with depth more than 4 meters that was opened and no longer cultivated in the coordinate 1° 36' 59.56 " S and 110° 23' 46.46" E and also in 1° 37'01.32" S and 110° 23' 49.32" E. In the Q-10 block with coordinate 1° 36'57.27" S and 110° 23'49.32" E was also found deep peat more than 4 meters which had been planted with oil palm in March 2010. Besides that on R-10 block which was in the coordinate 1°37'00.32" S and 110°24' 00.72" E was found shallow peat with depth 1.5 – 3 meters which had been planted with oil palm in April 2010. In the land across the block of R-10 there was enclave owned by local residents who had built their house made by boards and around their house has been planted with crops.

At block Q-13 (1° 36'47.29" S and 110°24'35.67" E) peat with 1.5 meter deep planted in April 2009 was found burnt during dry season. This area has been replanted in December 2009/January 2010. At the block Q-14 (peat < 3 meters) (1°36' 39.63" S and 110°24' 38.08" E) found in the same condition with Q-13 which found burnt and replanted in December 2009/January 2010.

Plasma area owned by smallholders which also found burnt (in August 2009) at block E-49 (1°34' 19.61" S and 110°26' 40.81" E). This area had been replanted in March 2010. Depth in this area is about 1.9 meters. At the same block E-49 (1°34' 19.59" S and 110° 26' 41.15"E), peat with 2.2 meters deep was also found burnt and replanted.

3.1.2. Central Kalimantan

The IVEX Team was provided with the soil maps of each estate indicating the location of peat soils as well as a recapitulation table per company indicating the hectarage, year of land preparation and year of planting. The maps are based on the standard soil survey procedures as recommended in the soil survey manual (Soil Survey Manual 1993) combining satellite image analysis and a field survey (grid survey using auger and regular soil profile observation for each type of soil). In addition, the local management of estates, supported by the R&D department of SMART, did a detailed survey with a sampling of 1 profile sample per hectare. These sampling points were observed using a special auger appropriate for peat depth observation.

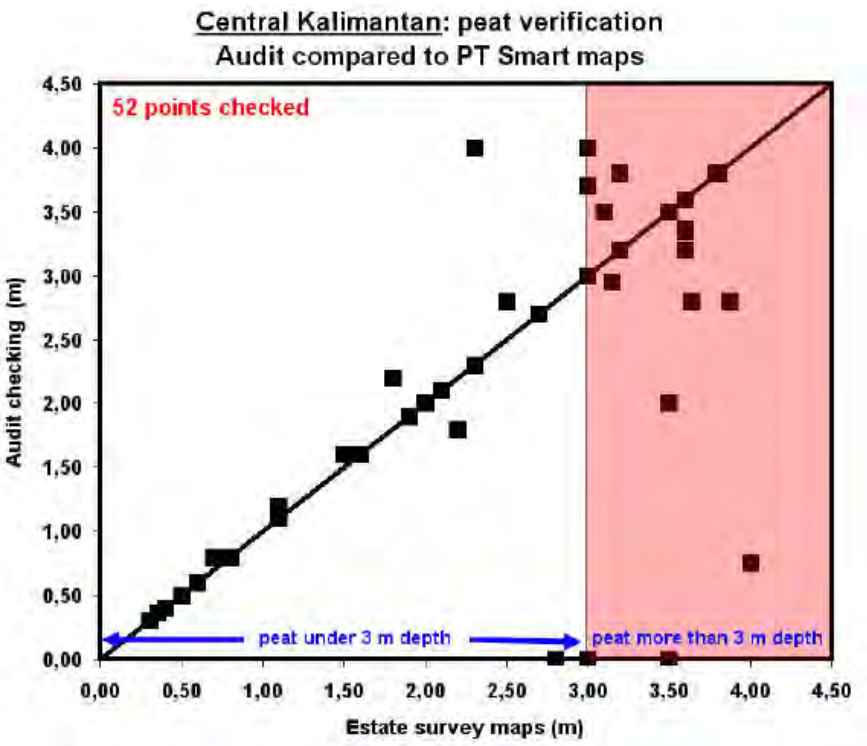
The IVEX Team decided:

- to check a significant number of sampling points to confirm the accuracy of the maps and observations provided by SMART. A total of 52 points were randomly observed throughout the Central Kalimantan concessions. At each point, at least 1, but often several measurements were performed in order to get an accurate value of the depth of the peat (as significant spatial variation is frequently observed in peat depth), as well to identifying the substratum underneath the peat layer.
- In addition, The IVEX Team collected soil samples for laboratory analysis.

The results are:

- Figure 3.1. shows the comparison of the observed depth of peat against the values provided by SMART. The values provided by SMART is accurate when peat depth < 3 meters. The team took these results to confirm the accuracy of the data provided by SMART regarding the extent of area and development on peat < 3 meters.
- On the other hand, for points indicating peat depth more than 3 meters by SMART, out of the 18 samples observed on the ground, around 40% (7 out of 18) were actually < 3 meters. We can conclude that the extent of area of peat depth more than 3 meters was most probably over evaluated.

Figure 3.1. Peat Verification – Central Kalimantan



The analysis of the distribution of peat on the map and on the ground shows that the peat (both < 3 m and > 3 m) is distributed in a high number of spots. The average size is 36 Ha/ spot (except 2 spots of 120 Ha and 240 Ha each) based on SMART's data. However, according to the results of field cross-checking organized by The IVEX Team and presented just before, the average size is most probably significantly lower. This high level of scattering, especially of the peat more than 3 m explains why they were difficult to identify before land preparation as at this stage of development, access to the ground is quite limited.

Table 3.5 shows that, out of the 1,880 Ha of deep peat, 1,166 Ha have been prepared before 2006, while no peat has been prepared after 2007.

Table 3.5. Detail of peat land preparation and planting (> 3 m) in Central Kalimantan

Total Concession Central Kalimantan:	**90,278**	**Ha**	
Year	**Land Preperation (Ha)**		**Planting (Ha)**
1998	27		-
1999	-		27
2000	-		-
2001	-		-
2002	-		-
2003	-		-
2004	442		-
2005	697		164
2006	599		420
2007	115		876
2008	-		268
2009	-		125
2010	-		-
Total:	**1,880**		**1,880**
% of total concession:	2.08%		-

Number of spot:	52	
Ha / Spot (average)	36	Ha
2 biggest Spots (Ha):		
spot 1 =	240	Ha
spot 2 =	120	Ha

3.1.2.1. PT Lestari Unggul Jaya (LUJ)

The company explained that the concession area of LUJ is 696 Ha where 480 Ha has been planted. 127 Ha of peat lands has been cleared and planted including 16 Ha planted on peat < 1.5 m depth; 41 Ha on peat 1.5-3 m depth and 69 Ha is planted on deep peat more than 3 m depth.

3.1.2.2. PT Satya Kisma Usaha (SKU)

The company explained that the concession area of SKU is 6,950 Ha divided into Medang Sari Estate (MSAE) with total area 6,950 Ha where 2,406 Ha area had been planted. Among 6,950 Ha of SKU total concession there are peat lands with total 866 Ha opened and planted, including 104 Ha is with depth < 1.5 m; 364 Ha with depth between 1.5 - 3 m and 398 Ha in deep peat lands with depth more than 3 m.

The peat is largely zonal and the peat area of the estate is 12% of the total concession.

3.1.2.3. PT Binasawit Abadi Pratama (BAP)

The company explained BAP total concession area 20,914 Ha which is divided into Terawan estate (TRWE: 4,828 Ha) with 4,660 Ha planted, Sungai Rungau (SRGE: 3,637 Ha) with 3,378 Ha planted, Sungai Seruyan (SSRE: 4,866 Ha) with 4,210 Ha planted, Tangar (TNGE 4,301 Ha) with 3,997 Ha planted and Bukit Tiga (BTGE: 3,281 Ha) with 2,628 Ha planted. Among the 20,914 Ha concession of BAP there are 39 Ha of peatlands which located in TNGE with depth 1-1.5 m.

Out of the total 20,914 Ha, amount planted on peat 39 hectares = 0.19%

The land was prepared by BAP in 1998.

3.1.2.4. PT Mitrakarya Agroindo (MKA)

SMART explained that MKA total concession was 23,011 which was divided into Sulin Estate (SLNE: 4,500 Ha), Nahiyang Estate (NHYE: 10,511 Ha), Ketayang Estate (KTYE: 4,000 Ha), and Sungai Nusa Estate (SNNE: 4,000 Ha).

Among the 23,011 Ha concession area of MKA there are 1,547 Ha of peat land (6.7%) that has been developed, with details at table 3.6;

Table 3.6. Peat Planted (MKA)

No.	Estate	Peat planted with depth (Ha)			
		< 1.5 m	1.5 - 3 m	>3 m	Total
1	SLNE	157	304	248	709
2	NHYE	89	345	163	597
3	KTYE	29	53	159	241
4	SNSE	-	-	-	-
	Total	**275**	**702**	**570**	**1,547**

3.1.2.5. PT Tapian Nadenggan (TN)

The company explained that the TN concession area is 24,407 Ha which was divided into Hanau Estate (HNAE: 4,552 Ha), Tasik Mas Estate (TMSE: 4,857 Ha), Tanjung Paring Estate (TPRE: 4,418 Ha), Langadang Estate (LNGE: 2,216 Ha), and Semilar Estate (SMLE: 4,289 Ha) and Sei Rindu Estate (SRDE: 4,075 Ha).

Among the 24,407 Ha TN concession area there is 1,471 Ha of peat land (6%) that has been developed (table 3.7).

Table 3.7. Peat Planted (TN)

No.	Estate	Depth of Peat (Ha)			
		< 1.5 m	1.5 – 3 m	>3 m	Total
1	HNAE	26	-	-	26
2	TMSE	-	-	-	-
3	TPRE	183	222	451	856
4	LNGE	30	167	392	589
5	SMLE	-	-	-	-
6	SRDE	-	-	-	-
	Total	**239**	**389**	**843**	**1,471**

The development of peat land in TN had been done since 2004 in LNGE plantation with total 200 Ha, but the first planting has been done in 2005 on 164 Ha area and also in TPRE plantation is opened since 2004, with 242 Ha but first time planted on 2006 with total 5 Ha only.

The surface in absolute (Ha) and relative (% of area/concession) of the area: Total 24,407 Ha, Planted on Peat 1,471 Ha represent 6%

The pattern of peat area is sporadic

3.1.3. CONCLUSION

3.1.3.1. On the land that was developed by SMART, there are planting on deep peat in two estates (> 3 m) from 2005 – 2008 which is in breach of the Presidential Decree with regards to deep peat issued in 1990.

3.1.3.2. Incidental planting was observed in all areas where deep peat occurs. The main reason for clearing and planting on deep peat was that they were not concentrated within one area but spread sporadically in various places and in small plots which are not easy to identify during the field survey

3.1.3.3. Central Kalimantan

- Of the total 90,278 Ha concession area (where the planted area was 57,746 ha) there were peat land with various depths totalling to 6,594 ha (7.30%). Out of this, 1,880 Ha (2.08 % of the total concession area) was deep peat of more than 3 meters, which were cleared and planted with oil palm trees.
- Total peat land was therefore less than the 8,067 ha as claimed in the REPORTS. The deep peat area was also less than 6,597 ha as claimed in the REPORTS.

3.1.3.4. West Kalimantan

- In Ketapang, out of 2 concessions totalled 33,300 ha, the planted peat of varying depths is 1,531 ha (4.6%).
- In ALM - Ketapang, and PIP - Kapuas Hulu, The IVEX Team's field findings concurred with the REPORTS that SMART continued to plant on deep peat. SMART has indicated that this went against its Operating Instructions and the plantation manager has been suspended pending outcome of the verification report.
- In Kapuas Hulu, out of the total concession 58,950 ha, the planted peat of varying depths is 1,399 ha (2.4%).
- The preliminary HCVF assessment report for KPC done by Fauna and Flora International (FFI) at Kapuas Hulu in March 2009 states that within KPC (19,200 ha) there was a total of 7,225 ha of peat lands (37% of the total concession area). However, in FFI's subsequent analysis conducted in August 2009, this was changed to 4,241 ha where peat area more than 3 meters deep was 1,868 ha (9.7% of the total concession area).
- SMART's own survey identified a total peat area of approximately 1,500 ha and 48 ha (0,25% of the total concession area) of deep peat more than 3 meters, which were cleared and planted with oil palm trees. Furthermore, The IVEX Team discovered that some locations identified as deep peat by FFI were actually mineral soil.

3.2. Forest Clearance, Orang-utan Habitats and HCV

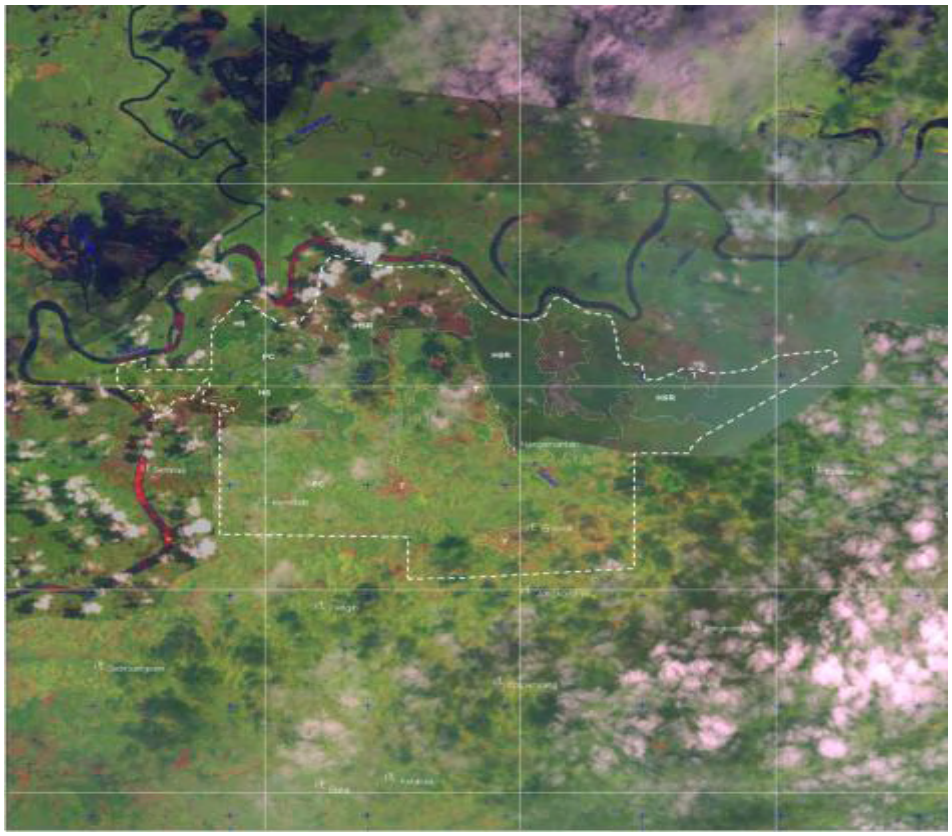
3.2.1. Forest Clearance

The IVEX Team analysed the historical land use, records of the minutes of the process for compensation and also sampling results of timber potential in forested areas. The results show that the conditions of land cover throughout all concession areas during the time when it was first managed and developed by SMART in Central and West Kalimantan Province were no longer Primary Forest (Virgin Forest) as envisioned in the REPORTS. The EIA study and HCVF assessments conducted in various concessions state explicitly that the majority of the concession areas were degraded land or shrub areas. This is confirmed by satellite image analysis.

The Reports raise concerns about (peat) forests in KPC, PIP, and PGM (Kapuas Hulu), ALM and KGP (Ketapang), SKU (Kotawaringin Barat) and BAT (Kotawaringin Timur). The IVEX Team assessed these concessions. In addition, The IVEX Team also assessed this issue at BAP (Seruyan).

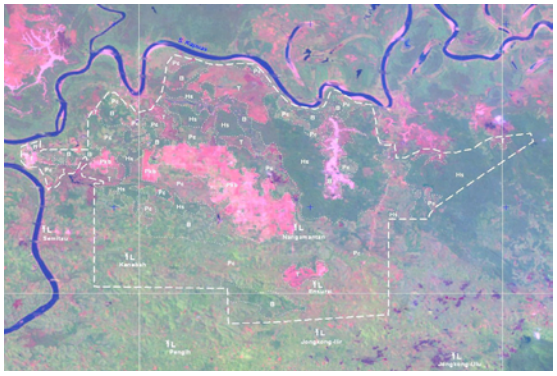
- Independent data covering KPC indicates that up to 1992, the area was part of a forest concession. Data from various sources show a stable 20% tree cover in the northern part of the concession from 2000 onward (see also image at Fig 3.2.1) and the HCV assessment concludes that KPC did not have any significant (enough) forest cover (see image on the right). Between 2000-2006, some 2,166 ha (15%) of the concession were converted to a rubber plantation.

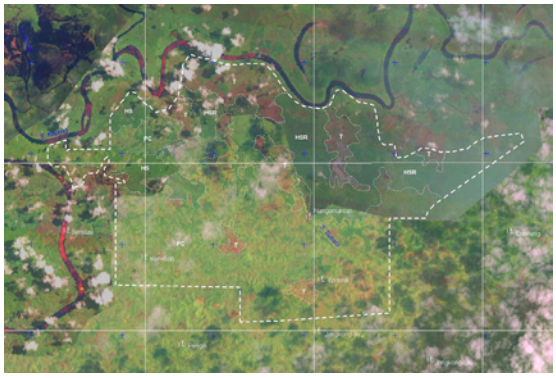
Figure 3.2.1. Land Cover KPC



- The IVEX Team's forest expert observed that the "rainforest" shown in GP3/8 is not rainforest, but is likely an area of shifting cultivation. This cannot be classified as a forest. Two research plots, one in a secondary forest and one in a shrub land areas.

PT Kartika Prima Cipta

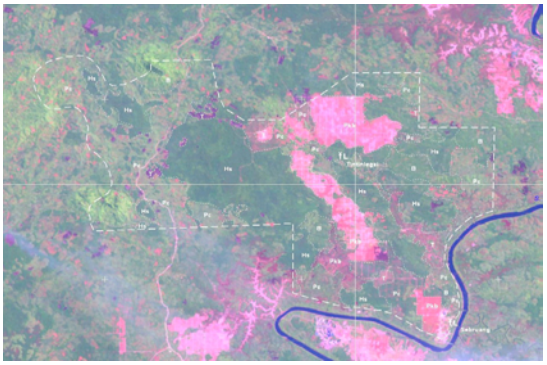


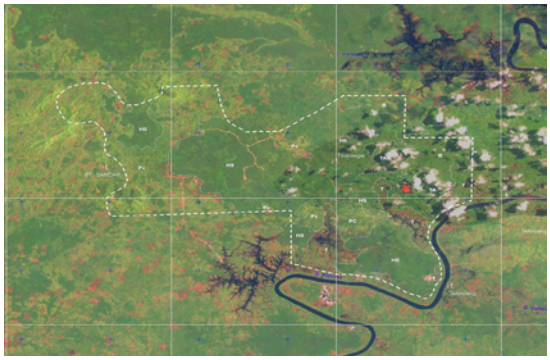


Land Cover Condition:

Image Data Year 2009		Image Data Year 1999	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	2,084	Secondary Forest	241
		Secondary Forest	4,242
		Mixed Cultivation	9,600
		Plantation	1,921
Secondary Forest	4,242	Secondary Forest	189
		Total Area	19,990
		Mixed Cultivation	497
		Open Land	271
Mixed Cultivation	9,600	Secondary Forest	368
		Secondary Swamp Forest	907
		Mixed Cultivation	7,471
		Open Land	855
Plantation	1,921	Secondary Forest	173
		Secondary Swamp Forest	282
		Mixed Cultivation	1,401
		Open Land	65
Open Land	2,143	Secondary Forest	75
		Secondary Swamp Forest	266
		Mixed Cultivation	385
		Open Land	1,416
Total Area	**19,990**		**19,990**

PT Paramitra Internusa Pratama



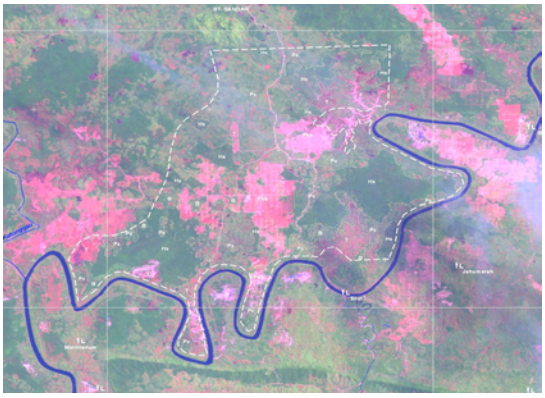


PIP satellite image suggests secondary tree cover in the centre of concession in 1999/2000. Some development of oil palm in this area as of 2009.

Land Cover Condition:

Image Data Year 2009		Image Data Year 1999/2000	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	1,411	Shrub	419
		Secondary Forest	7,404
		Mixed Cultivation	7,317
		Plantation	2,841
		Open Land	681
Mixed Cultivation	9,600	Shrub	1,103
		Secondary Forest	5,112
		Mixed Cultivation	581
		Open Land	233
		Cloud Covered	376
Plantation	1,921	Shrub	513
		Secondary Forest	1,709
		Mixed Cultivation	4,004
		Open Land	786
		Cloud Covered	305
Open Land	2,143	Shrub	6
		Secondary Forest	1,919
		Mixed Cultivation	471
		Open Land	380
		Cloud Covered	65
Total Area	19,990	Shrub	32
		Secondary Forest	208
		Mixed Cultivation	40
		Open Land	397
		Cloud Covered	3
Total Area	**19,654**		**19,654**

PT Persada Graha Mandiri

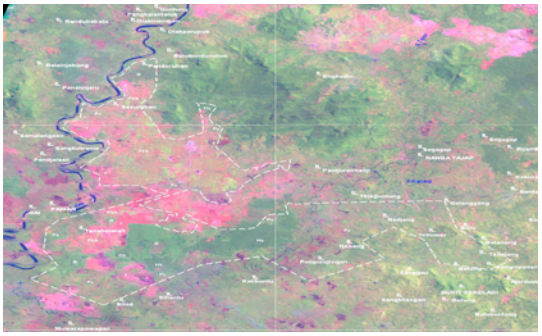


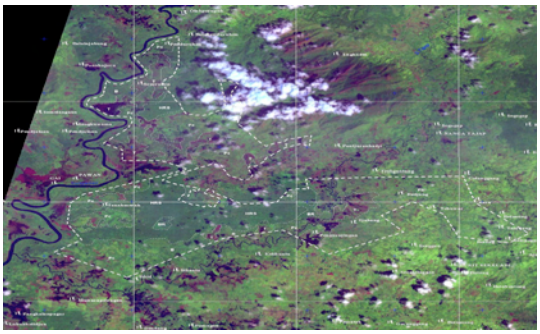
PGM satelite images analysis show few patches of secondary tree cover in 1999/2000, little to none developed for oil palm in 2009.

Land Cover Condition:

Image Data Year 2009		Image Data Year 2000	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**2000 Total (Ha)**
Shrub	640	Shrub	44
		Secondary Forest	190
		Mixed Cultivation	214
		Open Land	181
		Mining	11
Secondary Forest	6,158	Shrub	300
		Secondary Forest	3,527
		Mixed Cultivation	1,944
		Open Land	379
		Mining	8
Mixed Cultivation	8,572	Shrub	367
		Secondary Forest	175
		Mixed Cultivation	5,877
		Open Land	2,104
		Mining	49
Plantation	2,922	Shrub	491
		Secondary Forest	242
		Open Land	534
		Mining	20
Open Land	1,990	Shrub	2
		Secondary Forest	181
		Mixed Cultivation	212
		Open Land	1,329
		Mining	266
Total Area	**20,282**		**20,282**

PT Agro Lestari Mandiri



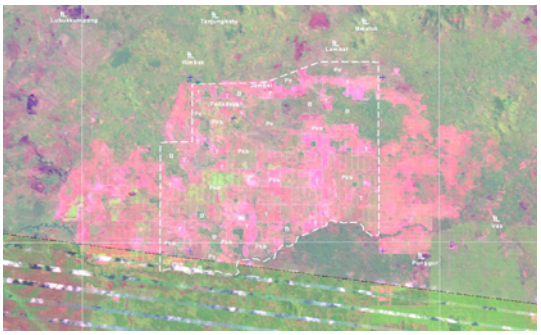


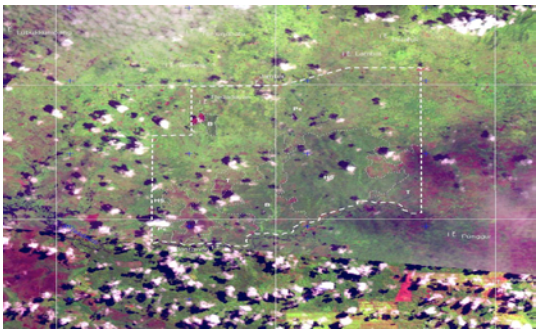
ALM's satelite images analysis show large area of swamp tree cover in south-eastern part of concession in 1999, heavily degraded in 2009 (see image left). Both satellite images differ significantly from those in GP2/5, GP3/9 and GP4/2. The IVEX Team assessed that the area around picture 2 in GP4/4, 300 m from a patch of shifting cultivation land in 1999. It concludes that the forest presented in the picture on the right is heavily degraded by local communities (see image on the left, 1°36'7.71"S, 110°25'8.74"E) and contains no HCV forest or other habitats.

Land Cover Condition:

Image Data Year 2009		Image Data Year 1999	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	1,886	Shrub	22
		Shrub Swamp	90
		Secondary Swamp Forest	1,388
		Secondary Forest	69
		Mixed Cultivation	257
		Open Land	60
Secondary Forest	1,642	Shrub	92
		Shrub Swamp	121
		Secondary Swamp Forest	1,256
		Mixed Cultivation	87
		Open Land	17
		Cloud Covered	68
Mixed Cultivation	8,059	Shrub	395
		Shrub Swamp	74
		Secondary Swamp Forest	240
		Mixed Cultivation	6,297
		Open Land	999
		Cloud Covered	54
Plantation	5,345	Shrub	129
		Secondary Swamp Forest	672
		Secondary Forest	20
		Mixed Cultivation	3,249
		Open Land	1,113
		Cloud Covered	28
Open Land	1,990	Shrub	391
		Secondary Swamp Forest	737
		Mixed Cultivation	375
		Open Land	459
		Cloud Covered	28
Total Area	**18,922**		**18,922**

PT Kencana Graha Permai





KGP satelite images analysis show patch of secondary tree cover in southeast of concession in 1999. Fully developed by 2009, very different from map 7/8 in GP2/6. For instance, a visit to the area shown in dark green in image 8 (GP2/6) is actually a shifting cultivation area (see image below). The IVEX Team concluded that this contains no HCV Forest or other habitats.

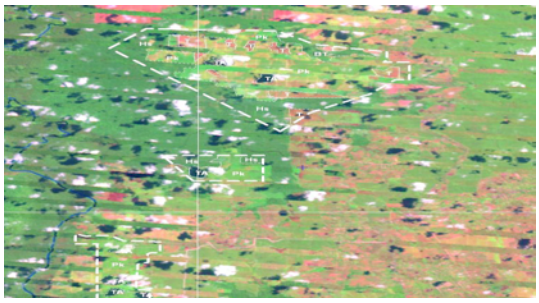
Home gardens/shifting cultivation lands at KGP (2° 7'50.43"S, 110°34'54.18"E)

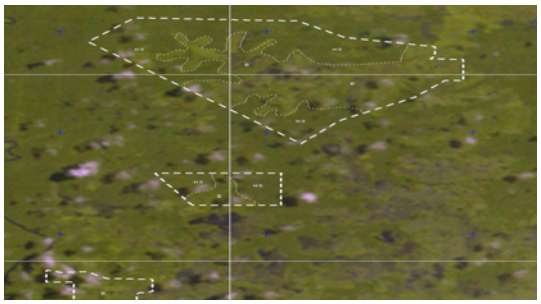
Shifting cultivation area at KGP (2° 7'12.15"S, 110°37'24.40"E), a sign board in this area states "one hectare 5,000,000 Million, if interested 50 hectare available"

Land Cover Condition:

Image Data Year 2009		Image Data Year 1999/2000	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	1,572	Shrub	65
		Secondary Forest	63
		Mixed Cultivation	1,397
Secondary Forest	57	Open Land	48
		Shrub	27
Mixed Cultivation	1,793	Mixed Cultivation	30
		Shrub	65
		Secondary Forest	122
		Mixed Cultivation	1,564
		Open Land	42
Plantation	4,939	Shrub	580
		Secondary Forest	1,346
		Mixed Cultivation	1,985
		Open Land	1,029
Open Land	2,543	Shrub	359
		Secondary Forest	565
		Mixed Cultivation	1,546
		Open Land	73
Total Area	**10,905**		**10,905**

PT Satya Kisma Usaha



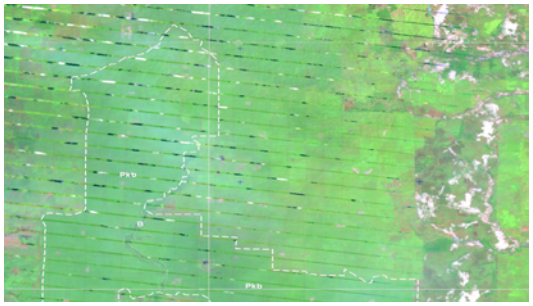


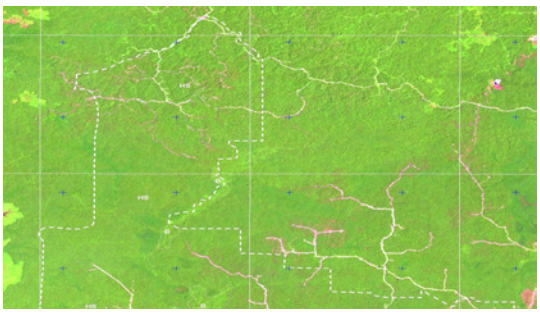
SKU satelite images analysis show various patches of secondary tree cover in 1989, and some of it developed for oil palm in 2010.

Land Cover Condition:

Image Data Year 2010		Image Data Year 1989	
Land Cover	**2010 Total (Ha)**	**Land Cover**	**1989 Total (Ha)**
Cloud Covered	275	Shrub	205
		Secondary Forest	71
Shrub	142	Shrub	7
		Secondary Forest	135
Secondary Forest	1,044	Shrub	261
		Secondary Forest	783
Plantation	2,443	Shrub	1,633
		Secondary Forest	809
Open Land	295	Shrub	148
		Secondary Forest	147
Total Area	**4,198**		**4,198**

PT Binasawit Abadi Pratama





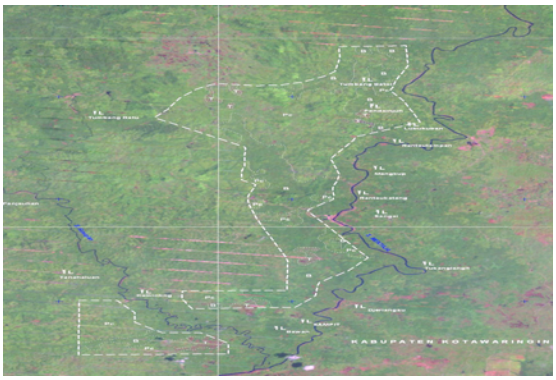
In BAP, Satellite Image Analysis shows the whole concession contained secondary forest and extensive roads in 1989. Independent documentation indicates that no forest cover left since 2000-2004. SMART's data on planting concurs with this statement.

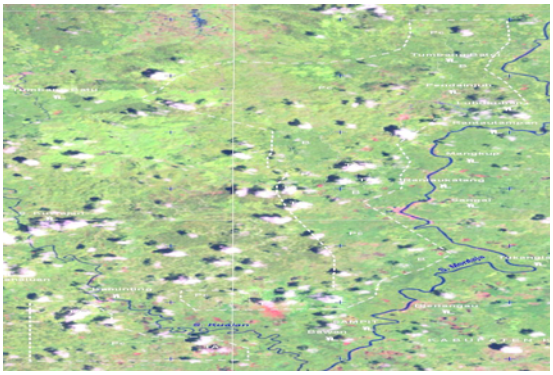
Land Cover Condition:

Image Data Year 2010		Image Data Year 1989	
Land Cover	**2010 Total (Ha)**	**Land Cover**	**1989 Total (Ha)**
Shrub	275	Shrub	81
		Secondary Forest	142
Plantation	142	Shrub	358
		Secondary Forest	20,334
Total Area	**20,914**		**20,914**

In BAT, no tree cover left in 1999.

PT Buana Adhitama

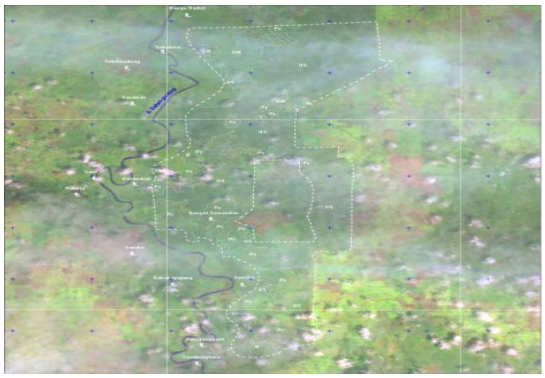




Land Cover Condition:

Image Data Year 2009		Image Data Year 1999	
Land Cover	**2009 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	5,141	Shrub	1,082
		Mixed Cultivation	3,796
		Open Land	11
		Cloud Covered	253
Mixed Cultivation	8,270	Shrub	223
		Mixed Cultivation	7,496
		Open Land	192
		Cloud Covered	359
Open Land	475	Mixed Cultivation	336
		Open Land	62
		Cloud Covered	77
Total Area	**13,886**		**13,886**

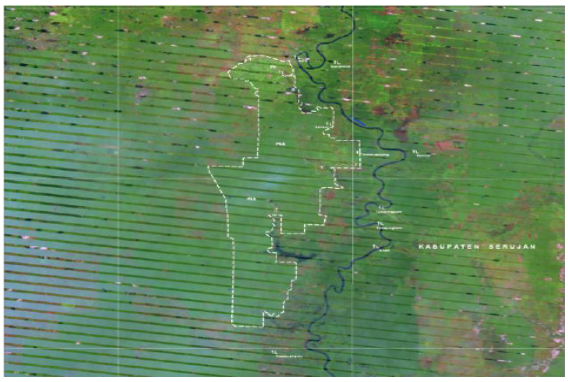
PT Mitrakarya Agroindo

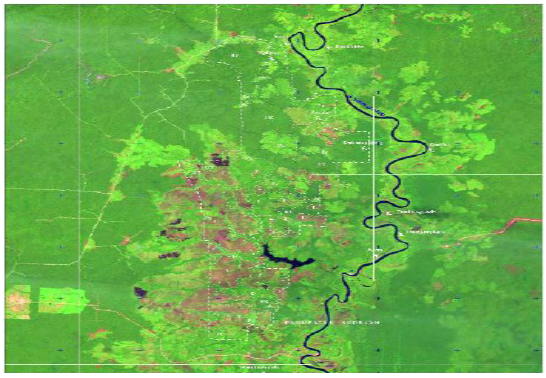


Land Cover Condition:

Image Data Year 2010		Image Data Year 1989	
Land Cover	**2010 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	1,820	Shrub	143
		Secondary Forest	255
		Mixed Cultivation	1,246
		Cloud Covered	176
Shrub Swamp	1,963	Shrub	543
		Secondary Forest	871
		Mixed Cultivation	550
Mixed Cultivation	2,909	Shrub	25
		Secondary Forest	2,409
		Mixed Cultivation	472
		Cloud Covered	2
Plantation	14,082	Shrub	34
		Secondary Forest	11,114
		Mixed Cultivation	2,870
		Open Land	39
		Cloud Covered	26
Open Land	2,631	Shrub	73
		Secondary Forest	1,211
		Mixed Cultivation	1,291
		Open Land	27
		Cloud Covered	29
Cloud Covered	435	Secondary Forest	358
		Mixed Cultivation	78
Total Area	**23,840**		**23,840**

PT Tapian Nadenggan



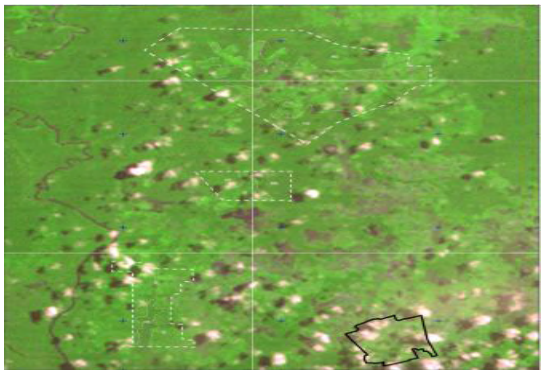


Land Cover Condition:

Image Data Year 2010		Image Data Year 1989	
Land Cover	**2010 Total (Ha)**	**Land Cover**	**1999 Total (Ha)**
Shrub	79	Secondary Forest	76
		Mixed Cultivation	4
Mixed Cultivation	342	Secondary Forest	257
		Mixed Cultivation	85
Plantation	15,182	Shrub	2,277
		Secondary Forest	4,382
		Mixed Cultivation	2,792
		Open Land	5,731
Open Land	407	Shrub	19
		Secondary Forest	258
		Mixed Cultivation	130
Total Area	**16,011**		**16,011**

PT Lestari Unggul Jaya

2010



1989

LUJ satellite images analysis show most of the land cover is shrub and some of it has been developed for oil palm in 2010.

The above findings suggest that the degradation process of forest areas that were habitats for Bornean Orang-utan happened before SMART took over the lands. In addition, the status of the entire concession areas according to the Central Kalimantan Provincial Spatial Planning (RTRWP) was designated for APL (non forestry cultivation land including settlement, industrial and urban areas).

Thus, from the review status of the area, development of oil palm plantation by SMART was not a process of forest area reduction (which according to FAO is known as Deforestation).

3.2.2. Orang-utan Habitats

As described in the previous section, conditions of land cover throughout all eleven concessions areas during the time it was first managed by SMART were no longer primary forest. This suggests degradation process of forest areas that were habitats for Bornean Orang-utan happened before SMART took over the lands. Nevertheless, The IVEX Team checked several concessions for the presence of Orang-utan habitat.

The findings of The IVEX Team are listed below:

- In ALM, the independent HCV Assessment concludes no Orang-utan habitat is found. The IVEX Team visited sites to assess Orang-utan habitat. It concludes that these sites are not Orang-utan habitats.
- In SKU, The IVEX Team visited sites linked to Orang-utan habitat. It observed nests and noted that these areas are conserved according to the EIA.
- The IVEX Team's observation at BAP (in area allocated for HCV) and the company's staff monitoring indicated that there were several animals including Orang-utan's nest. Direct encounter with Orang-utan were recorded 8 times at block F18 (3 times), block E18 (1 time), block B17 (1 time), block D15-16 (1 time), block B12-13 (2 times). For indirect encounter, it was recorded 6 times (sound: 2 times, nests: 4 times) at block E18 (1 time), block C18 (1 time), block D16-17 (1 time), block I16-17 (1 time), block A12-13 (2 times).
- FFI's findings (2009) showed that all concession areas at KPC was not primary forest that it only found 1 Orang-utan's nest (with nest estimated age was 6 months old). Various literature said that Orang-utans built their nest at least 1 nest every day. There is a high possibility that decreasing number of Orang-utans was caused by local people (penduduk asli) which hunted Orang-utans as one of animal protein sources. Interviews with local people, plantation workers and respective local authorities confirmed that Orang-utans were difficult to find (The detail information can be found in "High Conservation Value (HCV) Identification Report in PT Kartika Prima Cipta" by Fauna and Flora International Indonesia, October 2009).

Image 10 Old Orang-Utans Nest Observed by The IVEX Team at BAP area.

- In BAP, the company has setup an Orang-utan sanctuary covering 1,400 Ha since the first development of concession.
- Independent documents suggest that Orang-utan are been seen in this sanctuary: Documents: MoU between SMART, BAP and Borneo Orang-utan Survival (BOS) Foundation on Partnership to support Orang-utan and Habitat Conservation Program, 23 July 2009.
- BAP: Assessment in October 2009 by BOS Foundation, subsequent peer review, public consultation and final document finalized.

3.2.3. HCV

Based on detailed documents provided by the company, almost 19,000 Ha of oil palm plantations were planted between 2006 to the end of 2009, in Central Kalimantan over the different concessions. Approximately, the same area/Ha (19,000 Ha) was planted in West Kalimantan. Each of the two developed sites represents 10.4% of total concessions area visited by The IVEX Team during this exercise.

Out of this area, all Central Kalimantan development (19,000 Ha) and almost 15,000 Ha in West Kalimantan have not been assessed regarding the presence of HCV, although part of the traditional HCV were conserved. SMART affirms that, discussions have been initiated at RSPO level to prepare a compensation mechanism for HCV that could have been destroyed during the period from November 2005 to November 2007. Similarly, SMART affirms that the company is in preliminary discussion with several stakeholders to study a possible compensation mechanism, regarding any HCV area that might have been opened up during the period 2008 and 2009. A preliminary in-depth study will be implemented in order to identify these areas, if any. As for the remaining area to be planted in these concessions, i.e. about 55,000 Ha, HCV identification is in the final stage of reporting (field survey and public consultation being done).

The argument of SMART to explain this situation is:

SMART found that implementing HCV was quite challenging in the field, until a very recent past. Key issues identified include:

- Limited expertise available up to 2009: HCV was adopted in 2005, revised in 2008 (HCV Toolkit), and assessors approved by RSPO only in March 2010;
- Unclear relation to EIA: equivalent procedures for preparing an EIA (including work with local scientists) are challenged, but lead to similar results; and
- Inappropriate tools: implementing a toolkit made for natural forests in man-made situations is challenging, and RSPO develops a more applicable toolkit now.

This lack of the quality of some of this expertise was confirmed by the inconsistent results of the first two projects organized in West Kalimantan by SMART in 2006-2007 and 2008-2009 with external experts, showing strong differences between the recommendations made by these external teams and the actual situation on the ground.

Based on this situation, SMART decided to give priority for HCV assessment on high risk areas and to delay, until more human resources available, the lower risk areas like in Central Kalimantan where local expertise does exist and provide quite a comprehensive EIA (AMDAL).

Subsequently, SMART organized the HCV assessments on approximately 19,000 Ha, 57,000 Ha and 154,000 Ha during the years 2008, 2009, and 2010 (year to date) respectively. This new HCV assessments cover almost 100% of the future new plantings, and the complement is in preparation.

In Central Kalimantan, an area of 1,400 Ha has been conserved since 1996 for Orang-utans, while another peat area identified as high HCV of more than 2,000 Ha has been preserved since 2006. SMART has initiated collaboration with local expertise to optimize knowledge and management of the 1,400 Ha Orang-utans sanctuary.

Field Verification

Greenpeace raises concerns over HCV Habitats/Forests in KPC (Kapuas Hulu), and ALM (Ketapang), The IVEX Team assessed HCV and related issues at these concessions. In addition, The IVEX Team reviewed the work done on HCV in BAP (Seruyan).

The IVEX Team observes:

- In KPC, an independent HCV assessment started in late 2008, but the report is not finalized yet. SMART argues that the assessment poorly represents the actual condition in the concession. For instance, estimation of peat are revised down from 7,225 Ha to 4,241 Ha. SMART's data suggests that the actual peat lands total 1,500-2,000 Ha. The IVEX Team reviewed the independent HCV Assessment and notes that (1) it lacks detailed descriptions of the endangered habitats or forests, (2) it is unclear how identified HCV link to actual habitats/forests, (3) it fails to discuss similar findings in the EIA, and (4) it does not assure no HCV was converted after November 2005. The IVEX Team visited HCV sites in the concession and noted that the independent HCV assessment poorly represents the actual situation in the field.
- In ALM, an independent HCV assessment started in mid 2006, but the report has not been finalized yet (some 4 years later). SMART argues that the assessment poorly represents the actual condition in the concession. For instance, the assessment identifies over 4,000 Ha as peat land, while SMART's maps identified about 1,000 Ha of peat land. The IVEX Team reviewed the HCV Assessment and notes that (1) it contains generic descriptions of the identified HCV, (2) it is unclear how the identified HCV represent actual habitats/forests, (3) it fails to include similar findings in the EIA, and (4) it does not assure no HCV was converted after November 2005. The IVEX Team visited HCV sites in the concession, including 4 of the pictures in GP4. It concludes that the assessment poorly represents the actual situation in the field, and that the sites in the REPORTS do not represent HCV Habitats or Forests. For instance, The IVEX Team assessed the forest in picture 5 (GP4/4) and noted it is a mixed shrub and tree area that contains no HCV (see image right, 1°36'59.66"S-110°24'17.87"E).
- In BAP, an independent HCV assessment started in late 2005 for the Orang-utans sanctuary, was held in abeyance pending strategic discussion with Orang-utans NGO. The IVEX Team visited potential HCV sites in BAP.

The IVEX Team concludes that most remaining HCV habitats and forests are identified, inventoried and mapped, and management plans for these areas are in place. Remaining forests and key species (for example Orang-utan) are monitored and SMART cooperates closely with expert parties to implement its conservation strategies.

However, due to the lack of formal HCV assessments for some concessions, it remains unclear if SMART has identified all areas containing HCV. More importantly, many of the existing assessments do not assure that they are conserved since November 2007.

RSPO Principles and Criteria require that areas with protected, rare, threatened or endangered species and HCV habitat are identified and recorded prior to planting and measures taken to preserve them. The typical interpretation is that these HCV assessments be done by external and independent experts. In the concessions examined, 21% (37,698 Ha) of the total 182,528 Ha was opened before HCV assessment.

Based on the above interpretation and applying guidelines on when these criteria come into effect, 7 out of the 11 concessions (4 out of 5 in West Kalimantan and 3 out of 6 in Central Kalimantan) contravene RSPO P & C regarding HCV as planting was done prior to independent HCV assessment after November 2007. In 3 out of the 11 concessions, planting was done between November 2005 and November 2007 which means that these could still enter the RSPO certification process provided an HCV compensation mechanism be proposed and accepted by RSPO.

3.3. Plantation and Timber Permits

3.3.1. Plantation Permits

Claims in the REPORTS regarding plantation permits was mainly on the regularities of permit sequence obtained by SMART; e.g. that the IUP preceding the EIA, which according to Plantation Act 18/2004 dated 11 August 2004 and Ministry of Agriculture Decree No. 26/2007 dated 28 Feb 2007, the EIA must be prepared before the IUP.

Verifiers for this verification are as follow:

PERMIT1	The Environmental Impact Analysis is approved by the relevant authorities
PERMIT2	Land is cleared after the relevant permits (Location Permit, Plantation Business Permit, and Land Use Title) or dispensation is obtained
PERMIT3	Environmental impacts are regularly monitored and reported to the authorities

Documents sighted in the exercise include:

1. Location permit available in head office and field office
2. AMDAL (EIA) documents (KA ANDAL, ANDAL, RKL, RPL, and Executive Summary)
3. Plantation Business Permit
4. Dispensation Letter, if any
5. Company records on land preparation, nursery development and planting
6. Land Use Title (HGU)
7. Environmental Management and Monitoring Report (RKL-RPL)

Below is the summary of the finding on the permit according to company.

3.3.1.1. PT Kartika Prima Cipta (KPC)

Documents review of KPC found out that EIA was prepared prior to IUP approval; Land Preparation carried out after KPC gained EIA approval from local authority. EIA approval letter was issued on 22 December 2006 (Approval letter No. 290/2006) by Kapuas Hulu District Head. IUP approved on 22 January 2007 (Approval letter No. 526/61/Disperhut/Bun-A). Beside that KPC also obtained dispensation permit to start land-preparation from Plantation and Forestry service of Kapuas Hulu District Head (for First stage: nursery only 60 Ha (2008), and 60 Ha (2009); Second stage; 3,300 Ha (2008), 3,300 Ha (2009); 3,200 Ha (2010); 3,300 Ha (2011) and 3,400 Ha (2012) out of an area of 18,000 Ha. Company record on land development shows Nursery development commenced on 30 August 2007; The first Land Preparation 1 December 2007 and the first planting commenced on 12 September 2008.

Environmental Management and Monitoring Report for the period of January-June 2010 was done.

KPC is compliant with all verifiers.

3.3.1.2. PT Paramitra Internusa Pratama (PIP)

Review to the PIP's permit found out that EIA was approved a months before IUP issuance. EIA document was approved on 22 December 2006 (Approval letter No. 289/2006) by Kapuas Hulu District Head, while IUP was issued on 22 January 2007 (Approval letter No. 525/67/Disperhut/Bun-A). Additional permit was also obtained e.g. LC (land preparation) dispensation letter was issued on 11 January 2007 (Approval letter No. 525/64/Disperhut/Bun-A) with following conditions: First stage for nursery: 60 Ha (2008) and 60 Ha (2009); Second stage: 3,200 Ha (2008); 3,400 Ha (2009); 3,300 Ha (2010); 3,300 Ha (2011); 3,400 Ha (2012).

Environmental Management and Monitoring Report for the period of January-June 2010 was done.

PIP is compliant with all verifiers.

3.3.1.3. PT Persada Graha Mandiri (PGM)

PGM obtained area guidance letter on 4 August 2006 (Approval letter No. 525/992/BANG-I-A). Based on Technical recommendation issued on 19 December 2006 (Approval letter No. 525/490/Disperhut/BUN-A), PGM obtained a concession permit of 19,750 Ha based on the Ministry of Forestry Decision Letter on 23 August 2000 (Approval letter No. 259/Kpts-II/2000) and it is designated as APL (Other Land Use). EIA approved on 22 December 2006 (Approval letter No. 291/2006) by Kapuas Hulu District Head. IUP issued on 22 January 2007 (Approval letter No. 525/69/Disperhut/Bun-A) by the Kapuas Hulu District Head. On 11 January 2007 (Approval letter No. 525/65/Disperhut/Bun-A), a dispensation to set up nursery and Land Preparation was issued by Kapuas Hulu District Head, based on the followings term and conditions: First stage for nursery: 20 Ha (2007); 40 Ha (2008) and 60 Ha (2009); Second stage: 1,000 Ha (2007); 2,400 Ha (2008); 3,400 Ha (2009); 3,400 Ha (2010); 3,400 Ha (2011); 3,400 Ha (2012).

Environmental Management and Monitoring Report for period of January-June 2010 was done.

PGM is compliant with all verifiers

3.3.1.4. PT Agrolestari Mandiri (ALM)

There are discrepancies on the timing of the approval documents, e.g. EIA was approved on 27 December 2007 (Approval Letter No. 1064/2007) by the Governor of West Kalimantan, but nursery establishment commenced in July 2005 at the leased land from villagers and planting commenced in KYNE Estate in November 2006. Dispensation permits for land preparation was approved on 10 June 2005 (Approval Letter No. 525/1265/Disbun-D). Based on this dispensation letter, company started Land preparation and planting in November 2006. Even it seems as violation to the government regulation, but the Ketapang District has its own regulation related to the timing of document approval according to Ketapang District Head Decree date 12 September 2001, No. 247/2001. EIA document approval might be sought after IUP approval, according to the Ketapang District Head regulation.

Environmental Management and Monitoring Report for period of January-June 2010 was done.

ALM is compliant with all verifiers.

3.3.1.5. PT Kencana Graha Permai (KGP)

There are discrepancies between the timing of the required legislation and land preparation. EIA was approved on 7 July 2008 (Approval Letter No 546/2008) by the Governor of West Kalimantan while IUP was obtained on 17 March 2005 (Approval Letter No. 551.31/0459/DISBUN-C), with revision on 5 June 2007 (Approval Letter No. 551.31/1631/DISBUN-D). The Ketapang District Head issued dispensation for opening the land before EIA was approved on 30 August 2005 (Approval Letter No. 660/400/IV-Bappedalpembda). As the case of ALM, KGP also follows Ketapang District Head regulation.

Environmental Management and Monitoring Report for period of January-June 2010 was done.

KGP is compliant with all verifiers

3.3.1.6. PT Satya Kisma Usaha (SKU)

Initial development (land preparation) was commenced in 1998. Planted started in 1999 and the EIA was not issued until 20 December 2003 (Approval letter No 660/657/Bpdl/XII/2003) from Bapedalda Kotawaringin Barat Head. Therefore, it is considered to breach of the Government Decree No. 51/1993.

Environmental Management and Monitoring Report for period of July-December 2009 was done.

SKU is in compliance with two of the three verifiers.

3.3.1.7. PT Binasawit Abadi Pratama (BAP)

BAP obtained location permit from the Head of Land Office of Kotawaringin Timur district on 20 July 1994 (Approval Letter No. 754.460.42). Land preparation was commenced in 1996, and planting in 1997. EIA approval was obtained on 7 August 1997 (Approval Letter No. 015/ANDAL/RKL.RPL/BA/VIII/1997). It is considered a breach of the Government Decree No. 51/1993.

Environmental Management and Monitoring Report for the period of July-December 2009 was done.

BAP is in compliance with two of the three verifiers.

3.3.1.8. PT Mitrakarya Agroindo (MKA)

Initial planting at MKA was commenced in 2005. Subsequent development taking place in 2006, 2007 and 2008. EIA was approved on 10 May 2007 (Approval letter No. 188.44/185/2007). IUP was issued in 11 April 2005 (Approval letter No. 525/077/EK/2005) and the Location Permit obtained on 22 December 2005 (Approval Letter No. 194/2005) and 15 February 2006 (Approval Letter No. 55/2006) by the Seruyan District Head. The HGU (Land Use Title) is still in the process. Since the land preparation commenced before EIA approval, it is considered to violate the Government Decree No. 27/1999.

Environmental Management and Monitoring Report for period of July-December 2009 was done.

MKA is in compliance with two of the three verifiers

3.3.1.9. PT Tapian Nadenggan (TN)

Initial planting at TN was done in 1997 with subsequent clearing and development in 2004, 2005 and 2008, and the permits are:

Title	TN 1		TN 2		TN 3	
	No	Dated	No	Dated	No	Dated
Land Permit	1016.460.42 45/2004	18 Oct '95 31 Mar '04	1/SKPT/PMDN-BKPM/89	16 Jan '89	500/1010/Ek/2003 700.460.42	25 Sept '03 30 Sept '03
EIA	212/989	21 Dec '06	017/ANDAL/RKL-RPL/BA/VIII/1997	22 Aug '97	04.a TAHUN 2006	18 Jan '06
Plantation Business Permit (IUP)	500/193/Ek/2005	22 Jun '04	HK/350/251/Dj.Bun.5/III/1997	22 Aug '97	92/551	29 Sept '04
Land Use Title (HGU)	11	15 Sept '05	14	20 May '00	12 29	5 Oct '05 5 Oct '05

It was considered to breach of the Government Decree No. 51/1993.

Environmental Management and Monitoring Report for period of January-June 2009 was done.

TN is in compliance with two of the three verifiers.

3.3.1.10. PT Buana Adhitama (BAT)

IUP was approved on 6 March 2007 (Approval Letter No. 525.26/210/III/EKBANG/2007) by Kotawaringin Timur District Head area of 14,300 Ha. EIA was approved by the Governor of Central Kalimantan Province on 24 September 2007 (Approval letter No. 188.44/378/2007). First Land Preparation was carried out in 2006 and plantingwas done in 2007. It is considered to breach of the Government Decree 27/1999.

Environmental Management and Monitoring Report for period of July-December 2009 was done.

BAT is in compliance with two of the three verifiers

Conclusions:

- The IVEX Team found that all concessions in West Kalimantan had obtained the relevant permits before proceeding with field activities except for ALM and PT Kencana Graha Permai (KGP) in Ketapang which had commenced clearing and planting activities before the EIA (AMDAL) was approved.
- ALM and KGP, however, complied with the Decree No. 247 dated 12 September 2001 issued by the Ketapang District Head. This decree stipulates the licensing procedure for large scale plantation business and states that the plantation business licence (IUP) can be obtained prior to the EIA approval. ALM and KGP commenced land-clearing prior to the completion of the EIA based on the Land-clearing Dispensation Permit issued by the Ketapang District Head.
- However, in Central Kalimantan The IVEX Team found that in all the six concessions examined, land clearing took place before the relevant permits (AMDAL) were obtained.
- This is in breach of Government Regulation 27/1999.
- SMART explained that they had interpreted the Ministry of Agriculture Regulation No. 229/Kpts/KB.550/4/91 date 25 April 1991 and 753/Kpts/KB.550/12/93 date 6 December 1993 that a plantation company can develop the plantation before EIA. SMART also interpreted Ministry of Agriculture Regulation No. 786/Kpts/KB.120/10/96 date 22 October 1996 that a plantation company can develop the plantation simultaneously while EIA and HGU (Land Use Title) are being processed before the company obtains a permanent plantation permit.

3.3.2. Timber Permits

The REPORTS claim that land clearance/logging was done without obtaining Timber Utilization Permit (IPK) in 3 concessions in West Kalimantan: KPC, PIP and PGM. The IVEX Team conducted an analysis involving:

1. Chronological analysis of acquiring the location permit;
2. Analysis of the historical use of the concession area prior to allocation to KPC, PIP and PGM;
3. Chronological analysis of the socialization activities, land acquisition/compensation, land preparation; and
4. Use of Landsat imagery interpretation to analyze the land cover data in the year preceding the compensation process.

The IVEX Team Findings:

a. Based on Landsat imagery TM7 recorded in July 2007 land cover condition at KPC, PIP and PGM's concession area before compensation program run (started in September 2007), most of the area has been non-forest status covering 14,551.58 Ha or approximately 72% (by KPC), 9,169.19 Ha or approximately 46.44% (by PIP) and 13,142.22 Ha or approximately 64.81% (by PGM).

   All facts are based on compensation document in 3 concession area, condition of all community land cover that has been freed was a shrub, farm land or rubber trees plantation (complete list of compensation was included in the separate document). All circumstances are understandable considering that this area had been used as industrial forestry (for around 20 years) that converted into plantation area by SMART and was commonly utilized by local community for shifting cultivation or rubber plants. Availability coverage of non-forestry area as shown in Table 1 bring opportunity for 3 companies to submit IPK (Timber Utilization Permit) since these areas are classified as having commercially valuable timber.

   Further field assessment proved that the volume of the timber is not economically valuable. Therefore the company did not pursue to obtain the IPK.

b. The Director KPC sent a letter on 5 September 2008 (No. 07/KPC-KPH/D&L8/JKTO/IX/2008) to the Governor West Kalimantan subject concerning land preparation in 2008/2009 on the area of 7,053 Ha, consisting of opening non forestry area around 1,076 Ha, old bushes 2,296 Ha, secondary vegetation forest around 3,681 Ha. Based on above-mentioned circumstances, KPC applied the recommendation for Timber Utilization Permit ("IPK").

   The Governor of West Kalimantan issued a recommendation on 28 November 2008 (Approval No. 522/3456/DISHUT/2008) to KPC to apply for an IPK from the Kapuas Hulu District Head. On 21 January 2010 KPC obtain the IPK (Approval No 13/2010), from the Kapuas Hulu District, West Kalimantan Province.

   The same condition also arose in PIP and PGM that the both company also apply recommendation from Governor for getting IPK from the Kapus Hulu District Head. PIP obtain the IPK approval No.14/2010 dated 21 January 2010; but PGM just got the recommendation from the Governor but not continue to obtain IPK from Kapuas Hulu District Head because the timber is not economically valuable.

c. In Ketapang, IPK related to ALM was allocated to CV Kayong Makmur Sejati which has no relation with SMART (third party). Therefore, ALM did not have to apply for IPK.

   At KGP the average diameter of trees is 25.50 cm (20-49 cm) and the average height is 16.29 m. The volume of wood is 20.93 m^3/Ha. In KGP, the IPK was allocated to CV. Cen Bagus, which has no relation with SMART (third party), therefore KGP did not have to apply for IPK.

Table 3.7. Land cover condition at KPC, PIP and PGM's plantation concession area before acquired.

No.	Land Cover Type	KPC	PIP	PGM
		02-07-2007	20-09-2007	20-09-2007
1	Peat Forest *Hutan Gambut (HG)*	1,143.62	1,454.18	3,674.66
2	Non-Peat Forest *Hutan Non-Gambut (HNG)*	4,469.07	9,108.69	3,207.68
3	Peat Open Land *Areal terbuka Gambut (ATG)*	-	12.41	14.24
4	Non-peat Open Land *Areal Terbuka Non-Gambut (ATNG)*	-	-	239.34
5	Peat Oil Palm Plantation *Kebun Kelapa Sawit Gambut (KSG)*	-	-	-
6	Non-peat Oil Palm Plantation *Kebun Kelapa Sawit Non-Gambut (KSNG)*	-	-	-
7	Non-Forest *Non-Hutan*	1,4551.58	9,169.19	13,142.22
	T o t a l	**20,164.27**	**19,744.47**	**20,278.14**

Resource : Based on Citra landsat TM 542, July and September 2007.

For land type of plantation concession in 2009 (after plantation commenced their operations) for KPC, PIP and PGM, see table 3.8.

Table 3.8. Land cover condition on KPC, PIP and PGM Plantation concession in 2009 (after plantation commences operations)

No.	Land Cover Type	KPC	PIP	PGM
		29-07-2009	18-07-2009	18-07-2009
1	Peat Forest *Hutan Gambut (HG)*	790.46	451.77	3,163.79
2	Non-Peat Forest *Hutan Non-Gambut (HNG)*	4,061.01	7,372.44	2,897.46
3	Peat Open Land *Areal terbuka Gambut (ATG)*	33.74	595.60	143.46
4	Non-peat Open Land *Areal Terbuka Non-Gambut (ATNG)*	1,216.49	431.62	487.05
5	Peat Oil Palm Plantation *Kebun Kelapa Sawit Gambut (KSG)*	352.06	542.44	470.57
6	Non-peat Oil Palm Plantation *Kebun Kelapa Sawit Non-Gambut (KSNG)*	1,841.78	1,972.09	2,115.39
7	Non-Forest *Non-Hutan*	11,868.73	8,378.51	11,001.42
	T o t a l	**20,164.27**	**19,744.47**	**20,278.14**

Conclusions:

The analysis showed that there was no potential of economically valuable timber with diameters more than 30 cm. This was supported by field measurement and estimation of the potential economically valuable timber in areas where there is still some timber in the above three concessions. The IVEX team found that timber with diameter more than 30 cm was only about 12.6 m^3/Ha to 26.5 m^3/Ha (derived from 9 - 21 logs/Ha). This was the reason SMART did not continue to process IPK from the Kapuas Hulu Head of District when the Approval of Governor arose, because the timber were not economically valuable. In addition to observations done in the three companies in Kapuas Hulu, The IVEX Team analyzed the wood capacity of the land of all companies in Central Kalimantan.

BAP

The average diameter of trees is 28.61 cm (21.02-61.78 cm) and the average height is 20.78 m. The volume of wood is 27.08 m^3/Ha. The tree species are Waru, Meranti and Bangkirai.

BAT

The average diameter of trees is 31.11 cm (21.2-54.14 cm) and the average height is 19.38 m. The volume of wood is 5.52 m^3/Ha. The tree species are dominated with Makarangs.

MKA

The average diameter of trees is 31.85 cm (20.06-82.80 cm) and the average height is 24.54 m. The volume of wood is 5.5 m^3/Ha. The tree species are mainly Loari, Meranti and Mrapat.

TN

Based on field measurement it had been found that the diameter of forest left in TN was vary from 20.06 cm to 50.96 cm with an average of 28.62 cm, meanwhile trees height vary from 16 m to 30 m with an average of 21.78 m. Average trees volume per Ha was 14.43 m^3. The forest left dominated by Renghas, Ketiau and Rasak.

SKU

The average diameter of trees is 32.32 cm (21.02-98.73 cm) and the average height is 24.03 m. The volume of wood is 41.46 m^3/Ha. The tree species are mainly Meranti, Kruing, Bangkirai, Kempas, Ramin, Mentibo. and Umpang.

LUJ

The average diameter of trees is 28.27 cm (19.43-63.69 cm) and the average height is 20.16 m. The volume of wood is 4.85 m^3/Ha. The tree species are mainly Medang, Melawan, Prapat, Metiau, and Ketiau.

The IVEX Team found that based on these data and documents, companies mentioned above did not use the wood because of the low quantity, which is not economically valuable.

3.4. Fire Prevention/Burning

There are lines of accountability and responsibility with the fire prevention documentation. However, the SOP is very long winded and the requirements are lost in the details. The SOP needs to be streamlined with very clear and precise directions as to who does what and when. Regular training on SOP are needed to ensure all workers are aware of their responsibilities and practice and to ensure that they are capable of carrying out the requirements of the SOP.

It was noted during this verification exercise that, it appears to be a number of fire observation towers in the estates. These, at the time, appeared to be in good condition and were manned by the staff and binoculars were available. Throughout the estates, there are many signs in place, warning of fire risks and also mentioning that fires and smoking in the estates are forbidden. These signages appear to be adequate.

Each estate has a fire fighting – fire emergency facility in place. These include fire fighting equipments which are dedicated to fire outbreaks. There are also water tenders available with full of water and ready to be deployed as and when required.

Records are maintained on any fire outbreaks and action taken as a result, including extent of the area burnt and action taken.

There are maps provided giving the location of all hot spots including the GPS location for each one. It was noted that some of these hotspots pre date the development of the estate and therefore it was existed prior to planting and land preparation. This can only be determined by forensic testing on the areas.

3.4.1. ALM

During the dry season from July to September 2009, there was a fire which affected approximately 1,500 Ha, including some peat land. Fire fighting equipment and infrastructure were found inadequate to control this large fire outbreak. In fact, 1,500 Ha of new plantings were destroyed by fire which the company claims that this fire outbreak was caused by fire that started from the Conservation area. The IVEX Team found evidence such as burnt palms adjacent to the Conservation area and the regeneration of the vegetation in the Conservation area. The IVEX Team also notice that the local people used the Conservation area for hunting and timber extraction. After this incident, SMART enhanced its fires fighting equipment to manage large fire. ALM has developed a much improved fire control system with tower and equipment, and fire patrols are conducted, if there is no rain for three days.

There is no evidence to suggest that ALM has used fire to prepare land for new plantings.

In block Q-13 with coordinate 1°36'47.29" S and 110°24'35.67" E, it was found burnt peat land planted with oil palm, which was planted in April 2009. During December 2009/January 2010, that area was replanted with oil palm, with the peat depth of 1.5 m.

In block Q-14 with coordinate 1°36'39.63" S and 110°24'38.08" E, it was found with similar situation with block Q-13, where there was burnt land with oil palm planted and then replanted in December 2009/January 2010 with oil palm. The peat depth in that block was less than 3 m.

Plasma land owned by local community was also burnt as found in block E-49, at coordinate 1°34'19.61" S and 110°26'40.81" E. The land was formerly planted with oil palm and burnt in August 2009 and the replanting took place in March 2010. The peat depth in that block was 1.9 m. In the same block, with coordinate 1°34'19.59" S and 110°26'41.15" E and peat depth 2.2 m, it was also found, that land, which was formerly planted with oil palm, was burnt and replanted.

3.4.2.KGP

The company does not use fire for land preparation for new plantings. New plantings contained windrows of fell trees, unburned.

3.4.3.KPC, PIP and PGM

In 2008 the company recorded 2, 6 and 6 hotspots respectively in KPC, PGM and PIP. In 2009 it recorded 8, 4 and 21 respectively. These hotspots occurred in areas before SMART took control of the land.

3.4.4.LUJ

In 2006, the company recorded 13 hotspots at LUJ's concession area. In 2007, 2 hotspots were detected, that were based on company's verification result, and these were found outside the company's location permit.

3.4.5.SKU

In 2006, base of on the company's record, 48 hotspots were detected, out of which, 27 were identified to be outside the concession area, while 21 hotspots had been occurring prior to commencement of the land compensation process, to local community as land owners. In 2007, another 2 hotspots were detected, which proven through verification that, they were outside SKU's concession area. Random investigation on hotspots and related documents, has shown that hotspots area detected have occurred prior to the process of land compensation.

3.4.6.BAP

Based on the company's record, 3 hotspots were detected in 2006, located in the border, between the community land and estate land.

3.4.7.MKA

As documented in 2006, 33 hotspots were detected in MKA area, out of which, 1 hotspot was detected outside the concession area, 11 hotspots prior to land compensation, 8 hotspots detected after the compensation and 13 hotspots in enclave occupied by local people.

In 2007, 26 hotspots were detected, and verification revealed that 6 hotspots occurred prior to land compensation, 17 hotspots after the compensation and 3 hotspots in enclave occupied by local people.

The company reported a fire outbreak on 18 September 2009 to local authority, that about 4 Ha of oil palm estates at Division 7 Block G 97, belonging to MKA, were burnt. The fire made by a local named, Jarni of Sebabi village, who burnt his field that was adjacent to the company's land. As a result, the company suffered damage of about Rp 30 million. A statement from Jarni was published with the acknowledgment from the village authority and the company's representatives that, Jarni and his friends had burnt about 2 Ha of their fields, that caused the fire on the company's land.

3.4.8.TN

- In 2006, the company detected 37 hotspots in TN's area. Further identification found that those hotspots are outside the concession area. The field verification by The IVEX Team also confirmed the location of the hotspots, shown by the overlay result between hotspots coordinate and map, and was in compliance with the location permit. In 2007, there were no hotspots detected.
- After the fire incidents in TN location, the company reported to the local authority (Sectoral Police - Polsek), as it happened on Monday, 31 August and Thursday, 1 September 2009, whereby 52 oil palm trees were burnt.

- Another fire incident happened on 5 October 2006, which burnt 230 oil palm trees, comprising an area of 1.6 Ha at block K.10. Similarly, on 1 September 2006 at block E-14, where 770 oil palm trees were burnt due to fire, comprising an area of 6.2 ha, followed by another incident on 11 October 2006 at block E.13 comprising an area of 0.18 ha, where 25 oil palm trees were burnt and at block K.9 where 54 oil palm trees were burnt, comprising an area of 0.39 ha. In the event of fires, TN has continually reported to the local authorities.

3.4.9.BAT

Hotspot recorded at BAT occured before the company compensated and took control of the land.

Location	Hotspots	Percentage (%)
Outside SMART's Control		
Outside Concessions	69	42%
Within Concessions Before Transfer Ownership	38	23%
Third Party Enclaves Within Concessions	16	10%
Sub Total	**123**	**75%**
Within SMART's Control		
Border with Local Farmers	3	2%
Within Concessions After Transfer Ownership	25	15%
Within Concessions After Planting	13	8%
Sub Total	**41**	**25%**
Total	**164**	**100%**

3.4.10.Conclusions

- From the data provided and the verification carried out during the visit, 164 hot spots were identified and of these, 75% (123) occurred outside SMART's control and ownership,

  25% (41) hotspots occurred within SMART's concessions. Of these, the cause of the 25 spots is unknown. SMART claims they often originate from slash and burn practices from neighbouring local farmers.
- Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Observations and analysis of hotspot data support the view that systematic land clearance by burning had not taken place. Most hotspots and burning in or near SMART concession occurred before land compensation and preparation.
- Interviews and police reports indicated that all concessions have monitored fires and hotspots but non-compliance of procedures in documenting fires and hotspots was a weakness in most concessions

3.5. Social Impacts

Social impact of a project or a practice is one of the most difficult aspects to evaluate. This has been recognised by most institutions, and an increasing number of research projects are in development throughout the scientific community in order to develop methods of evaluation and indicators of social impact. This is due to the fact that social benefit from a project is actually a combination of economical impact, together with the impact on access to food, welfare, access and development of health facilities, access and development of education facilities. The last two factors rely on the development of infrastructure at the local, regional and national level. In addition, social impact must also take into consideration the desire and possibility for these communities or individual to conserve traditions and cultural aspects which often relies on ecological services, or is in harmony with nature.

Methods of evaluation include "field" survey through interview, meetings with local communities, economic evaluation. Difficulties are related to the capacity of getting data representative of the diversity of the community.

The IVEX Team did not set out to undertake a comprehensive socio-economical analysis, as this is beyond the capacity of the team within such an exercise. The aim here is mainly to try and detect any signs of negative social impacts in relation to activity in or close to the concessions examined. This was done through several interviews of local individuals.

In addition, The IVEX Team examined available records and documents to audit compliance against RSPO Principles and Criteria which are deemed to be relevant to this issue.

The verifier is utilized to assess whether there are negative social impacts on the communities in relation to the opening and operations of oil palm estates as follows:

DISPUTES	Where there are, or have been, disputes, proof of resolution or progress towards resolution by conflict resolution processes acceptable to all parties are implemented.

In relation to RSPO Principles and Criteria, the following were used as key indicators in the verification exercise:

RSPO Criterion 2.3	Records of any negotiated agreements between traditional owners of land and plantation companies (if any) supplemented with maps in appropriate scale. Maps of an appropriate scale showing extent of recognized customary rights.
RSPO Criterion 7.5	No new plantings are established on local peoples' land without their free, prior and informed consent, dealt with through a documented system that enables indigenous peoples, local communities and other stakeholders to express their views through their own representative institutions.
RSPO Criterion 7.6	Local people are compensated for any agreed land acquisitions and relinquishment of rights, subject to their free, prior and informed consent and negotiated agreement.

The exercise was done at the following concessions:

- Central Kalimantan: SKU, BAP, MKA, TN, BAT.
- West Kalimantan: KPC, KGP, ALM.

Documents sighted in the exercise include:

- Records of compensation paid to land users – showing documents signed by all parties agreeing to compensation
- Records of maps of small holder blocks
  - Photographs of handover of compensation to traditional users
  - Records of blocks including size, location, occupant, date of agreement for all estates
  - Records of meetings with landowners
  - Records and maps of areas left as enclaves in all estates

Interviews were conducted as follows:

- Central Kalimantan: Occupants of enclaves in each estate.
- West Kalimantan: Two persons from a transmigration village, villagers in Desa Mantan and fish farmers.

Findings are as follows:

RSPO Criterion 2.3	1. Records of any negotiated agreements between traditional owners of land and plantation companies (if any) supplemented with maps in appropriate scale. 2. Maps of an appropriate scale showing extent of recognized customary rights. 3. Copies of negotiated agreements detailing process of consent.
SKU, MKA, BAP, BAT, TN, KGP, ALM, KPC	There are records of agreements between traditional users of the land which indicate that they have accepted the compensation with a third party witness which is the local notary office. Maps were sighted of these small blocks indicating the size of each block.
KPC	The company has a well established mechanism for identifying land "owners" or those with usufruct rights and there is a documented compensation payment system before any land is cleared.
RSPO Criterion 7.5	No new plantings are established on local peoples' land without their free, prior and informed consent, dealt with through a documented system that enables indigenous peoples, local communities and other stakeholders to express their views through their own representative institutions.
SKU, TN, MKA, BAP, BAT	There have been new plantings on peoples land and evidence of free, prior and informed consent is not available. They do not appear to be able to express their views on these matters as there are no comprehensive records of this process. As records are not clear, there is no evidence that local communities were able to express their views through their own representatives.

MKA, BAP	We spoke to locals who did not choose to give up their land and classified as enclaves and all gave an indication they were under no pressure to give up their land.
KGP	Maps of the concession area show a mosaic of established oil palm plantations interspersed with blocks of "customarily owned" land where the "owners" decided that they did not want to enter into agreement with the company or were holding out for a better price (one block had a sign advertising it for sale : 50 ha @ Rp. 5,000,000/ha).
ALM	Interviewed Suarit and Warsito (Professor Hero translated): Arrived from Java in 1993 living at Lembah Hijau Village, all of 300 families have plasma area 1.75 ha per family. They are happy, since the company has operated they have a better road and ease the way to sell their garden products, Currently, they work for the company and get paid (one mentioned both he and his wife) Rp. 33,000.- each/day. They also benefits from Plasma scheme. They formed a cooperative which received a loan from the bank. However, they are not aware of the details of their loan for developing Plasma. They know 60% from their net income will be used for installment of the bank loan and the balance will be distributed through cooperative for them.
KPC	There have been new plantings on peoples land and evidence of free, prior and informed consent is available. Visited the Village of Mantan, the Company provided generator, commissioned in July 2009 at the cost of Rp. 240 million. It provides electricity to 65 houses in the Village (average household 5 persons). Each household contributes Rp. 60,000/month for fuel and volunteers operate the generator. The Company supports the maintenance. People in the Village also work for the company, and they are very happy with the generator as they are now able to watch television. They are also happy with the better road access. Visited fish ponds adjacent to oil palm, interviewee expressed the view that his Arowana fish ponds have not been affected by the oil palm plantings.
RSPO Criterion 7.6	Local people are compensated for any agreed land acquisitions and relinquishment of rights, subject to their free, prior and informed consent and negotiated agreement
SKU, MKA, BAT, TN, KGP, ALM, KPC	There is evidence of local people being paid compensation in relation to land acquisitions. However, it does not appear that their is any attempt to explain to local people the positive and negatives impacts on giving up use their land. There has been no cost benefit analysis between the advantages or and disadvantages on giving up their land and the rights to it.
MKA, BAT, KGP, ALM, KPC	Local people did speak favourably of SMART with regards to constructing roads to enable them to have better access to markets for their products and to local areas such as schools, religious buildings, shopping, etc.

In relation to points raised in the REPORTS pertaining to the threat to livelihoods, disrupting and polluting wetlands and affecting the source and quality of the Kapuas River, the following points are noted:

- The Kapuas River flows to the south of the Danau Sentarum National Park and there is a river flowing from the lake to the Kapuas River (whereby The IVEX Team gained access to the National Park).
- The team observed a number of fish farmers along the Kapuas River, and adjacent to the plantations which were in a healthy state, claim by Arowana fish growers (a native fish of the Sentarum lake) fish production does not seem to be affected by the company's activities.

Conclusions:

The local people have been paid compensation for the land and there is evidence of this in the form of agreements signed by all parties plus a government witness. There are no obvious signs of pressure to the land owners to sign and give up the land. There is evidence of meetings in each estate where the occupants have been explained the issues and methods of paying and determining compensation. However, it does not appear to have third parties involved in the discussions and explain both positive and negative impacts of giving up the land and therefore this would be considered a breach under RSPO Criterion 7.6 with regards to free, prior and informed consent.

Although all land is owned by the Government of Indonesia, the compensation paid by the company to recognise "owners" (usufruct rights) of the land who are identified by the Village Chiefs. Smallholders (Plasma) are offered for 20% of concession area. Some trees, e.g. fruit and rubber trees left were at the request of the "owners" until the harvest in the close future.

There was no evidence of social conflicts due to these agreements and ownership of the land is determined before any compensation is paid. Although this does not completely comply with RSPO Principles & Criteria, the land acquisitions has not resulted in wide spread social issues or conflicts.

Records of all negotiated agreements with the traditional land users are available.

Although this was not an exhaustive investigation of the attitude of the local communities towards SMART, the ambience of the villagers met within the concession areas and the surrounding villages as well as along the roads from the ports to the plantations were positive.

4. Conclusions & Evaluation

4.1. Peat lands

4.1.1. Central Kalimantan

- Peat depth distribution maps compiled by SMART in six concessions areas located in Central Kalimantan Province was cross-checked/re-measured with 1% intensity sampling and indicated that of the total 90,278 Ha concession area (where the planted area was 57,746 ha) there were peat lands with various depths totalling to 6,594 Ha (7.30%). Out of this 1,880 Ha (2.08 % of the total concession area) was deep peat of more than 3 meters, which were cleared and planted with oil palm trees.
- The total peat land was therefore below the 8,067 (6,594) Ha as claimed in the REPORTS. The deep peat area of is also below the 6,597 (1,880) Ha as claimed in the REPORTS.
- Incidental planting was observed in all areas where deep peat occurs. The main reason for clearing and planting on deep peat was that they were not concentrated within one area but spread sporadically in various places and in small plots which are not easy to identify during the field survey.

4.1.2. West Kalimantan

- In Ketapang, out of 2 concessions 33,300 ha, the peat of varying depths is 1,531 Ha. Of these, the entire 836 Ha (2.51%) of peat more than 3 meters deep had been cultivated by the people involved in a transmigration program (568 ha), and by SMART total 268 Ha (0.80%), 114 Ha for plasma and 154 Ha for nucleus scheme. As there are multiple stakeholders in this area, SMART has indicated it will consult them on practical remedial actions.
    - In ALM, Ketapang, The IVEX Team field findings concurred with the REPORTS that SMART "continued to clear peatlands" on deep peat. SMART has indicated that this went against its Operating Instructions. The plantation manager has been suspended pending outcome of the verification report and stopped any planting on peat.
- In Kapuas Hulu, out of the total concession 58,950 ha, the peat of varying depths is 1,399 ha. Of these, all the 494 Ha (0.8%) of peat more than 3 meters deep had been cultivated by SMART.
    - The preliminary High Conservation Value Forest (HCVF) assessment report for KPC done by Fauna and Flora International (FFI) at Kapuas Hulu in March 2009 states that within KPC (19,200 ha) there was a total of 7,225 Ha of peat lands (37% of the total concession area). However, in FFI's subsequent analysis with additional data from field activities conducted from 11 to 14 August 2009, this was changed to 4,241 Ha where peat area more than 3 meters deep was 1,868 Ha (9.7% of the total concession area).
    - SMART's own survey identified a total peat area of approximately 1,500 ha, out of this 48 ha (0,25% of the total concession area) of deep peat more than 3 meters, were cleared and planted with oil palm trees. Furthermore, The IVEX Team discovered that some locations identified as deep peat by FFI were actually mineral soil.

- SMART agreed that for deep peat cultivated in KPC, it will conduct restoration and rehabilitation works as well as closing the drainage channel network on the converted peat area with depth of more than 3 meters.
- In PT Paramitra Internusa Pratama (PIP), The IVEX Team found oil palm trees were cultivated in 13.8 Ha of deep peat. This was against SMART's Operating Instructions. SMART explained that an estate manager responsible has now been suspended.

4.2. Forest Clearance, Orang-utans Habitats and HCV

- Analysis of historical land use, records of the minutes of the process for compensation and also sampling results of timber potential in forested areas, showed that the conditions of land cover throughout all eleven concession areas during the time when it was first managed by SMART in Central and West Kalimantan Province were no longer Primary Forest (Virgin Forest) as envisioned in the REPORTS. EIA study and HCVF assessment conducted in various concessions stated explicitly that the majority of the concession areas were degraded land or shrub areas. This is confirmed by satellite image analysis.

- This suggests that the degradation process of forest areas that were habitats for Bornean Orang-utan happened before SMART took over the lands. In addition, the status of the entire concession areas according to the Central Kalimantan Provincial Spatial Planning (RTRWP) was designated for APL (non forestry cultivation land including settlement, industrial and urban areas). Thus, from the review status of the area, development of oil palm plantation by SMART was not a process of forest area reduction (which according to FAO is known as Deforestation).

- RSPO Principles and Criteria require that areas with protected, rare, threatened or endangered species and HCV habitat are identified and recorded prior to planting and measures taken to preserve them. The typical interpretation is that these HCV assessments be done by external and independent experts. In the concessions examined, 21% (37,698 ha) of the total 182,528 Ha was opened before HCV assessment.

- Based on the above interpretation and applying guidelines on when these criteria come into effect, 7 out of the 11 concessions (4 out of 5 in West Kalimantan and 3 out of 6 in Central Kalimantan) contravene RSPO P & C regarding HCV as planting was done prior to independent HCV assessment after November 2007. In 3 out of the 11 concessions, planting was done between November 2005 and November 2007 which means that these could still enter the RSPO certification process provided an HCV compensation mechanism be proposed and accepted by RSPO.

- The view of SMART is that since there were very few HCV assessors in Indonesia earlier, it used the information gathered from the independent EIA or AMDAL as guidance to identify HCV and hence minimizing the risk of developing on HCV. The RSPO National Interpretation directly links identification of HCV(F) to the EIA. However, the ambiguity over the similarities and differences between EIA and HCV(F) are not addressed by the RSPO. Therefore The IVEX Team recommends that the RSPO clarifies whether an independent (external) HCV assesstment is the only accepted means or whether other means of identify and recording HCV - using the EIA for example - is acceptable under the RSPO Principles and Criteria and the Indonesian National Interpretation.

- Specifically in PT Buana Adhitama (BAT) there were no tree cover since 1999. SMART developed BAT from end 2006. Furthermore an independent HCV assessor by RSPO confirmed in June 2010, that there is no Orang-utan and the only HCV is the river riparian and hilly area which are being conserved by SMART.

4.3. Permits

4.3.1. Timber Permits (IPK)

Analysis was done involving:

(a) chronological analysis of acquiring the location permit;

(b) analysis of the historical use of the concession area prior to allocation to all eleven concessions;

(c) chronological analysis of the socialization activities, land acquisition/compensation, land preparation/land clearing; and

(d) using Landsat imagery interpretation to analyze the land cover data in the year preceding the compensation process.

With reference to KPC, PIP and PT Persada Graha Mandiri (PGM), The IVEX Team findings showed that there was no potential of economically valuable timber with diameters more than 30 cm. This was supported by field measurement and estimation of the potential economically valuable timber in areas where there is still some timber in the above three concessions. The IVEX Team found that timber with diameter more than 30 cm was only about 12.6 cubic meters/Ha to 26.5 cubic meters/Ha (derived from 9 - 21 logs/ha). This supports the reason that SMART did not continue to process IPK from the Kapuas Hulu Head of District when the Approval from Governor of West Kalimantan Province was obtained as the timber was not economically valuable.

4.3.2. Plantation Permits

- Chronology of permit acquisition and scheduling of the implementation of field activities were reviewed.
- The IVEX Team found that all concessions in West Kalimantan had obtained the relevant permits before proceeding with field activities except for ALM and PT Kencana Graha Permai (KGP) in Ketapang which had commenced clearing and planting activities before the EIA (AMDAL) was approved.
- ALM and KGP, however, complied with the Decree No. 247 dated 12 September 2001 issued by the Ketapang District Head. This decree stipulates the licensing procedure for large scale plantation business and states that the plantation business licence (IUP) can be obtained prior to the EIA approval. ALM and KGP commenced land-clearing prior to the completion of the EIA based on the Land-clearing Dispensation Permit issued by the Ketapang District Head.
- However, in Central Kalimantan The IVEX Team found that in all the six concessions examined, land clearing took place before the relevant permits (AMDAL) were obtained. This is in breach of Government Regulation 27/1999.
- SMART explained that they had interpreted the Ministry of Agriculture Regulation No. 229/Kpts/KB.550/4/91 date 25 April 1991 and 753/Kpts/KB.550/12/93 date 6 December 1993 that a plantation company can develop the plantation before EIA. SMART also interpreted Ministry of Agriculture Regulation No. 786/Kpts/KB.120/10/96 date 22 October 1996 that a plantation company can develop the plantation simultaneously while EIA and HGU (Land Use Title) are being processed before the company obtains a permanent plantation permit.

4.4. Burning & Fire prevention

4.4.1. Central Kalimantan

Location	Hotspots	Percentage (%)
Outside SMART's Control		
Outside Concessions	69	42%
Within Concessions Before Transfer Ownership	38	23%
Third Party Enclaves Within Concessions	16	10%
Sub Total	**123**	**75%**
Within SMART's Control		
Border with Local Farmers	3	2%
Within Concessions After Transfer Ownership	25	15%
Within Concessions After Planting	13	8%
Sub Total	**41**	**25%**
Total	**164**	**100%**

- From the data provided and the verification carried out during the visit, 164 hot spots were identified and of these, 75% (123) occurred outside SMART's control and ownership, 25% (41) hotspots occurred within SMART's concessions. Of these, the cause of the 25 spots is unknown. SMART claims they often originate from slash and burn practices from neighbouring local farmers.
- Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Observations and analysis of hotspot data support the view that systematic land clearance by burning had not taken place. Most hotspots and burning in or near SMART concession occurred before land compensation and preparation.
- Interviews and police reports indicated that all concessions have monitored fires and hotspots but non-compliance of procedures in documenting fires and hotspots was a weakness in most concessions.

4.4.2. West Kalimantan

Field verification could not find evidence of burning in land clearing and preparation. SMART has a zero-burning policy for land preparation. Most burning in or near SMART concession occurred before land compensation and preparation and were likely to have been caused by slash-and-burn practices of the local community.

4.5. Social Impact

- There was no evidence of conflict over land acquisition process. However, there was also no records of participatory discussions with previous land owners during the compensation process. There was no evidence that independent third parties were represented during discussions with land owners. Where there was evidence of meetings, it appeared that the attendees were SMART employees, land owners and sub district heads (Camat) who witnessed compensation payment rather than being involved in negotiations. There was no clear evidence that land owners were provided with a cost–benefit analysis to compare the merits of owning the land or relinquishing it. Some land owners who did not relinquish their land rights were interviewed and they indicated that there was no undue pressure from SMART to relinquish their land.
- Interviews with the local community support the view that the plantations had a positive impact on the community. There were references of improvements in infrastructure and livelihood. However, the number of interviews conducted could not adequately conclude that there was no negative social impact to the communities. The IVEX Team feels that for its observations to be conclusive, separate research needs to be done and recommends that SMART embarks on this.

End Notes

[1] RSPO Certification Systems, page 7

[2] See also Brinkmann, 2009; Melling, et al., 2005; Muruyama and Bakar, 1996 (BHS to provide full references)

[3] The REPORTS claim:

- activities that damage upstream natural swamp forests with deep peat (more than 3 metres) are prohibited.4(GP1/6)
- Presidential Decision Nr. 32/1990 dated 25 July 1990, states that natural forests on peat soil of three metres or more, must be protected (GP2/8)
- Ministerial Decrees have stipulated that peatlands of three metres deep or more must be protected and should not be converted to plantations. (GP3/8)
- an extensive peat dome up to seven metres deep .... is illegal to clear forests or develop a plantation in this area. (GP4/1)

[4] The REPORTS claim:

- Many new plantations are located on peat that should be off-limits to development or degradation according to Indonesian law. This stipulates that land should not be allocated for oil palm plantations on peat soils deeper than 2 metres (GP1/10)

[5] The REPORTS claim:

- A Ministry of Agriculture decree from February 2009, only permits companies to clear peatlands that are less than three metres deep. (GP2/8)
- Many new plantations are located on peat that is off limits to development or degradation under Indonesian law. Ministerial Decrees have stipulated that peatlands of three metres deep or more must be protected and should not be converted to plantations. (GP3/8)

[6] RSPO National Interpretation indicators regarding peat:

- Subsidence of peat soils should be minimised under an effective and documented water management programme (4.3.minor.4)
- Records of implementation of zero burning policy (5.5.MAJOR.2; Use of fire on peat soils should be prohibited)
- Maps identifying marginal and fragile soils, including excessive gradients and peat soils, should be available (7.4.minor.1; Planting on extensive areas of peat soils and other fragile soils should be avoided referring to national regulations)

[7] FSC 2004. FSC Principles and Criteria for Forest Stewardship, FSC reference code: FSC-STD-01-001 (April 2004)

[8] Rainforest Alliance and ProForest 2003. Identifying, Managing, and Monitoring High Conservation Value Forests in Indonesia: A Toolkit for Forest Managers and other Stakeholders, Version 1, August 2003, Prepared by the Rainforest Alliance and ProForest on behalf of the WWF and IKEA Co-operation on Forest Projects

[9] RSPO 2005. RSPO Principles and Criteria for Sustainable Palm Oil Production, Public release version, 17 October 2005

[10] RSPO INA-NIWG 2007. Interpretasi Nasional Prinsip dan Kriteria Untuk Produksi Minyak Sawit Berkelanjutan, Republik Indonesia, Dokumen Draft Final (Termasuk Indikator Major & Minor), Roundtable on Sustainable Palm Oil, Indonesian National Interpretation Working Group (RSPO INA-NIWG), September 2007

[11] RSPO INA-NIWG 2007. Interpretasi Nasional Prinsip dan Kriteria Untuk Produksi Minyak Sawit Berkelanjutan, Republik Indonesia, Dokumen Final, Roundtable on Sustainable Palm Oil, Indonesian National Interpretation Working Group (RSPO INA-NIWG), November 2007

[12] These documents state:

- Rekaman identifikasi HCV sebelum areal dibuka yang dimuat dalam dokumen AMDAL sesuai peraturan yang berlaku; Records of identification of HCV prior to opening plantations and be included in SEIA assessment documents (AMDAL), in accordance with relevant laws. (Final Draft, Page 28)
- Identifikasi HCV dimasukkan dalam dokumen AMDAL; HCV identification is considered to be inclusive of the SEIA documents (AMDAL). (Interim Final, Page 30)

[13] RSPO INA-NIWG 2008. National Interpretation of RSPO Principles and Criteria for Sustainable Palm Oil Production, Republic of Indonesia, Final Document, Roundtable on Sustainable Palm Oil, Indonesian National Interpretation Working Group (RSPO INA-NIWG), May 2008

[14] RSPO INA-NIWG 2008. The Interpretasi Nasional Prinsip dan Kriteria Untuk Produksi Minyak Sawit Berkelanjutan, Republik Indonesia, Dokumen Final, Roundtable on Sustainable Palm Oil, Indonesian National Interpretation Working Group (RSPO INA-NIWG), Mei 2008 states:

- Analisa Nilai Konservasi Tinggi menuntut pelatihan dan kemampuan yang tertentu, dan harus mencakup konsultasi dengan masyarakat lokal, terutama untuk mengidentifikasi Nilai Konservasi Tinggi sosial.
- Identifikasi HCV sebaiknya dilaksanakan sesuai dengan National Interpretation dari Kriteria HCV atau sesuai dengan global HCV toolkit jika National Interpretation tidak tersedia. (Page 33, Panduan)

[15] Konsorsium 2008. Panduan Identifikasi, Kawasan Bernilai Konservasi Tinggi Di Indonesia, Oleh : Konsorsium Revisi HCV Toolkit Indonesia, Jakarta - Juni 2008

[16] www.hcvnetwork.org/resources/national-hcv-interpretations

[17] Nilai Konservasi Tinggi – NKT – adalah sesuatu yang bernilai konservasi tinggi (Konsorsium 2008, Page 15)

[18] RSPO National Interpretation indicators regarding HCVF:

- Records of results of identification of any protected, rare, threatened or endangered species, and HCV habitat (5.2.MAJOR.1);
- If, rare, threatened or endangered species, or high conservation value habitats are present, appropriate measures to preserve them are to be taken (5.2. MAJOR.2);
- Measures taken for protecting species and their habitats must be in accordance with relevant laws and included actions to control any illegal or inappropriate hunting fishing or collecting activities (5.2.MAJOR.3);
- Posters and signs warning of the presence of protected species are to be produced, distributed, and made visible to all workers and the community, including guidelines in handling them (5.2.minor.1);
- Companies are to appoint dedicated and trained officers to monitor any plans and activities as above (5.2.minor.2);
- Maps showing plan and realization of land clearing in accordance with HCV identification (7.3.MAJOR.2);
- New plantings since November 2005, have not replaced primary forest or any area required to maintain or enhance one or more High Conservation Values (Criterion 7.3).

[19] The HCV Toolkit states:

- ecosystems referred to by HCV 4.1 include ... a variety of wetland ecosystems including peat swamp (especially swamp that is still forested) (page 20)
- some non-forest ecosystems such as deforested peat lands with a functionally intact hydrological system ... can prevent the spread of fires and are critical landscape features in fire prone areas (page 21)
- Areas of peat swamp with a depth more than 3 m are also considered protected areas as ruled in Presidential Decision No. 32 (1990) and Law 80 (1999) (page 45)
- off-site impacts ... include changes to the natural hydrology of an area (eg peat swamp dome) (page 48)

[20] The REPORTS claim:

- IMPACTS OF DEFORESTATION IN INDONESIA
  Indonesia now has the fastest deforestation rate of any major forested country. Losing 2% of its remaining forest every year, Indonesia has earned a place in the Guinness World Records.
  According to World Bank estimates, between 1985 and 1997 alone, 60% of the lowland rainforest of Kalimantan and Sumatra was destroyed. The United Nations Environment Program (UNEP) estimates that 98% of Indonesia's lowland forest may be destroyed by 2022.
  Indonesia also holds the global record for GHG emissions from deforestation, which puts it in third place behind the USA and China in terms of total GHG emissions from human industry. The destruction of Indonesia's peat swamp forests alone is one of the largest sources of GHG emissions in the world. The largest portion of these emissions is associated with fires to clear the land for agricultural development.
  Indonesia's emissions from destroyed or degraded peatland are around 1.8Gt CO2 per year, equivalent to 4% of total GHG emissions, from less than 0.1% of the world's land surface. If predicted expansion in oil palm plantations goes ahead, peatland emissions of CO2 are set to rise by at least 50% by 2030.
  A 2007 UNEP report recognises that oil palm plantations are now the leading cause of rainforest destruction in Indonesia.33 Between 1991 and 2006, almost 5 million hectares of new oil palm concession areas have been established in Indonesia alone,34 equivalent to over 50 football pitches an hour.
  As a 2008 Greenpeace investigation reveals, much of this area – which overlaps critical Orang-utan habitat – is being cleared of valuable forest, the peatlands drained and the land burned as oil palm plantation area expands. (GP1/8)
- 'The main areas remaining for new extensive plantations are the large tracts of tropical peatlands – until recently virgin rainforest areas. Over 50% of new plantations are planned in these peatland areas.' Wetlands International, 2007 (GP1/10)
- 'Peat swamp forests, which host high densities of Orang-utans, are targeted for palm oil production. Palm oil plantations are also being developed on logged-over forest land, preventing recovery.' United Nations Environment Programme, 2007 (GP1/11)
- THE VICTIMS: FORESTS
  The Earth's forests are home to around two thirds of all plant and animal species found on land.30 They form some of the most diverse ecosystems in the world and are vitally important to the health of the planet. While species new to science are still being discovered, many more well known species, including Orang-utans, Javan rhinos and Sumatran tigers are at risk of extinction due to loss of their natural habitat. (GP3/5)
- THE EVIDENCE: DESTROYING PEATLAND FORESTS
  Greenpeace has documented [peatland] clearance on concessions belonging to Nestlé's supplier Sinar Mas and Unilever consultants concluded in their audit that:
  > 'Sinar Mas has cleared and planted [such] peatlands. The total peatland area could not be determined because the company did not provide insight in its soil maps. (GP3/8)

[21] The REPORTS claim:

- MAPPING EXTINCTION: HOW OIL PALM CONCESSIONS ARE DRIVING HABITAT DESTRUCTION AND FUELLING CLIMATE CHANGE (GP1/4)
  Recent Greenpeace analysis and investigations confirm that expansion in oil palm plantations by Unilever suppliers is having a serious impact on their habitat. (GP1/5-6)
  As Orang-utans and other species lose their rainforests to oil palm plantations, they are deprived of their natural source of food. Seeking to survive off young palm plants, hungry Orang-utans can become 'pests' to oil palm producers, and plantation workers commonly kill Orang-utans to protect the crop. According to the Centre for Orang-utan Protection, at least 1,500 Orang-utans died in 2006 as a result of deliberate attacks by plantation workers. (GP1/8)
  'The Bornean Orang-utan is classified as Endangered [...] indicating that it has a very high risk of extinction in the wild in the near future. The Sumatran Orang-utan is classified as Critically Endangered [...] indicating that it has an extremely high risk of extinction in the wild in the near future. Since 1900, the number of Sumatran Orang-utans is thought to have fallen by about 91%, with a rapidly accelerating loss towards the end of the twentieth century.' United Nations Environment Programme, 2007 (GP1/9)
  In Central Kalimantan, between 2006 and 2007, one Orang-utan rescue centre retrieved more than 200 Orang-utans from oil palm plantations. Greenpeace has evidence of Orang-utans found on concessions belonging to Unilever suppliers. (GP1/10).
- THE VICTIMS: ORANG-UTANS
  Orang-utans are only found in the rapidly disappearing tropical rainforests of Borneo and Sumatra. Clearing forests to make way for plantations is one of the main causes of the steep decline in Orang-utan numbers in recent years. Recent estimates suggest there are between 45,000 and 69,000 Bornean and no more than 7,300 Sumatran Orang-utans left in the wild. The UN Environment Programme (UNEP) classes the Bornean Orang-utan as Endangered, meaning that it faces a very high risk of extinction in the wild in the near future. The Sumatran Orang-utan is classified as Critically Endangered, putting it at extremely high risk of extinction.
  As Orang-utans lose their forests to palm oil plantations, they are deprived of their natural source of food and are forced to fight for survival by eating young palm plants. These hungry Orang-utans can become seen as 'pests' to oil palm producers, and plantation workers kill Orang-utans to protect the crop. According to the Centre for Orang-utan Protection, at least 1,500 Orang-utans died in 2006 as a result of deliberate attacks by plantation workers and loss of habitat due to the expansion of oil palm plantations. (GP3/5)
- DRIVING ORANG-UTANS TO EXTINCTION

In 2008, Greenpeace researchers overlaid maps showing the distribution of Orang-utan habitats in Kalimantan with maps locating the position of oil palm concessions owned by Nestlé's supplier Sinar Mas. This revealed that Sinar Mas concessions not only overlapped with Orang-utan habitat but that deforestation had destroyed these habitats. Unilever consultants, checking Greenpeace's evidence, stated that:

> 'At least three of the four Sinar Mas concessions visited [in March 2009] comprise or comprised Orang-utan habitat... such habitat has been cleared and planted with oil palm by the companies.' (GP3/6)

[22] MacKinnon 1972, referred in Rijksen 1978

[23] (Van Scheick & Azwar 1991, referred in EIA, 1998)

[24] Rodman (1971, referred in Maple 1980)

[25] Rijksen (1978)

[26] Reynolds 1967

[27] K. MacKinnon 1986

[28] Singleton et al. 2004, referred in PHVA 2004

[29] Meijaard, 2009. Orang-utan conservation in Indonesia - achievements, new findings, challenges, Erik Meijaard – Forest Director, People and Nature, Presentation 'Developing Models for Orang-utan Conservation within Fragmented Ecosystems', October 1st to 2nd, 2009

[30] The REPORTS claim:

- Unilever suppliers and RSPO members are expanding their plantation areas into forests and peatlands in Indonesia. This expansion [is] often illegal (GP1/3), like 'concessions on peatlands over 2 metres deep or use of fire for clearance' (GP1/29)
- Oil palm plantation expansion takes place with little oversight from central or local government. Procedures for environmental impact assessment, land-use planning and ensuring a proper process for development of concessions are neglected (GP1/10).
- SINAR MAS: ENGAGED IN ILLEGAL FOREST CLEARANCE IN INDONESIA
  Greenpeace has investigated a number of the palm oil companies of the Sinar Mas group in West Kalimantan to assess whether or not they were meeting these legal obligations. ... the investigation revealed that Sinar Mas companies were contravening even these basic legal requirements.
  The case studies ... show how palm oil operations owned by Sinar Mas companies – even including its RSPO member PT SMART – continue to violate Indonesian law ..., through illegal land clearing and the destruction of High Conservation Value forest. (GP2/3)
- THE EVIDENCE: BREAKING THE LAW
  Greenpeace investigations have revealed that Sinar Mas companies have persistently broken Indonesian forestry laws and regulations when clearing forest land for a number of oil palm plantations. (GP3/8)

[31] State relevant claims by Greenpeace

[32] The RSPO National Interpretation states:

- Evidence of compliance with relevant legal requirements (2.1.MAJOR.1)
- Evidence of efforts made to comply with changes in the regulations (2.1.MAJOR.2)
- A documented system, which includes written information on legal requirements that the palm oil company should comply with (2.1.minor.1)
- A mechanism for ensuring that compliance with relevant legal requirements is implemented (2.1.minor.2)

[33] RSPO Certification Systems, page 19

[34] The REPORTS claim:

- If the concession contains forest areas, a company must comply with the Ministry of Forestry regulations and apply for and obtain a Timber Cutting Permit (IPK), prior to clearing the forest. (GP2/3)
- According to Indonesia's 1999 Forestry Act, companies are not allowed 'to cut trees or harvest or collect any forest products within the forestland area without holding rights or a license issued by authorised officials'. Therefore, plantation companies need to obtain a Timber Cutting Permit (IPK) before clearing any forested areas in their concession areas. Violation of this provision is an offence under article 78(2) of the Forestry Act. IPKs are issued at a local level by either the governor or the district head (bupati) (GP2/4)
- Ministry of Forestry Decision Nr. 382 (2004) furthermore stipulates that IPKs are also required for clearing forests on Non-Forest Estate lands (APLs). The IPK regulates where companies can and cannot clear the forest and provides the basis for payment of forestry taxes. Companies who clear forests without having paid the due forestry taxes are thus stealing from the Indonesian State and the general public. (GP2/4)
- Greenpeace released evidence at the end of 2009 showing that Sinar Mas had failed to comply with Ministry of Forestry regulations and in some cases failed to apply for and obtain Timber Cutting Permits known as IPKs, prior to clearing forest in a number of its concessions close to Danau Sentarum National Park in West Kalimantan. (GP3/9)

[35] Keputusan Bupati Ketapang No.247 tahun 2001 tentang Tata cara dan izin usaha perkebunan besar Kabupaten Ketapang, 12 September 2001

[36] The REPORTS claim:

- No significant land development activities are permitted before the company has obtained a valid Plantation Business Permit (IUP). One requirement for obtaining an IUP is the completion and approval of an Environmental Impact Assessment (AMDAL in Indonesia). (GP2/3)
- Prior to obtaining a Plantation Business Permit (IUP), a pre-condition for starting a plantation, a company must conduct and obtain approval of an Environmental Impact Assessment (EIA – AMDAL in Indonesia). Approval of the EIA by the local authorities is required before applying for an IUP. According to Indonesian law, developing an oil palm plantation without an EIA should result in any IUP that has been issued being revoked. (GP2/5)
- Article 25 (1) within Plantation Act Nr 18 year 2004 stipulates: "To prevent damage to the environment, before obtaining an IUP, plantation companies shall conduct an Environmental Impact Assessment..." Also see rules under Keputusan Menteri Kehutanan Dan Perkebunan Nomor: 602/Kpts-II/1998 (GP2/12).
- According to Indonesian law, prior to obtaining the right to develop a plantation (Plantation Business Permit) and before commencing any land clearance, a company must conduct an Environmental Impact Assessment (EIA) and have this approved by local authorities. (GP3/9)

[37] Analisis Mengenai Dampak Lingkungan Hidup (AMDAL)

[38] Studi Mengenai Dampak Lingkungan Hidup (SEMDAL)

[39] Studi Mengenai Dampak Lingkungan Hidup (SEMDAL). This studi aimed to determine whether a company need to prepare SEL (Studi Evaluasi Lingkungan) or not.

[40] Analisis Dampak Lingkungan Hidup (ANDAL)

[41] Rencana Pengelolaan Lingkungan Hidup (RKL)

[42] Rencana Pemantauan Lingkungan Hidup (RPL)

[43] The RSPO National Interpretation states:

- Site Permit (Izin Lokasi), Plantation Operation Permit (Izin Usaha Perkebunan), Land Use Title (Hak Guna Usaha) or other documentation relating to application for Land Use Title in accordance with relevant procedures (page 3).

[44] The RSPO National Interpretation states:

- Documented impact assessment (5.1.MAJOR.1)
- Records of regular report on environmental management in accordance with relevant regulations (5.1.MAJOR.2)
- Revisions to environmental management document if there are changes in companies operating areas or activities (5.1.minor.1)

[45] The REPORTS claim:

- HOW UNILEVER PALM OIL SUPPLIERS ARE BURNING UP BORNEO
  Image top: 16 October 2006, Fire on Central Kalimantan oil palm plantation
  Image center: 4 October 2007, Haze from plantation fires clouds the Kapuas River in Central Kalimantan (GP1/1)
- The destruction of Indonesia's peat swamp forests alone is one of the largest sources of GHG emissions in the world. The largest portion of these emissions is associated with fires to clear the land for agricultural development. (GP1/6)
- PROJECTED IMPACT OF 2006–2007 FIRE HOTSPOTS IN RELATION TO CURRENT OIL PALM CONCESSIONS (GP1/10)
  These maps overlay several data sets: peatland distribution maps,30 oil palm concession boundaries based on 2006 work by Forest Watch Indonesia,31 and fire hotspots identified by NASA satellite imagery.32 The first map shows peatland distribution in Central Kalimantan. The second map overlays this with 2006 – 2007 fire hotspot data. The third map overlays this with oil palm concessions, showing where they all overlap (GP1/11)
  The use of fire to clear forest areas is the largest source of GHG emissions in the world. The practice has been illegal in Indonesia since 1999, yet remains commonplace among palm oil producers. Greenpeace has identified thousands of fire hotspots (areas visible on satellite images used to monitor forest fires) on concessions belonging to Unilever suppliers during the period 2006–2007. (GP1/10)
- THE VICTIMS: THE CLIMATE
  The destruction of the world's forests is one of the main causes of climate change, second only to human energy demands. Every year, up to 1.8 billion tonnes of climate changing greenhouse gas emissions are released by the degradation and burning of Indonesia's peatlands – that is up to 4% of global greenhouse gas emissions from less than 0.1% of the land on earth. Whilst it is illegal under Indonesian law to convert peatland over three metres deep into plantations or to use fires to clear land, plantation companies regularly use both these practices. (GP3/5)
- THE EVIDENCE: BURNING RAINFORESTS
  While degraded tropical forest and peatlands release their stores of carbon over decades, burning releases these stores into the atmosphere rapidly and damages the capacity of the ecosystem to recover. Even though the practice of burning forest areas has been illegal in Indonesia since 1999, fires account for 70% of Indonesia's annual emissions from peatland. Greenpeace has identified fire hotspots in Sinar Mas concessions and the Unilever consultants confirmed that:
  > 'The Greenpeace claim that there were numerous fire hotspots in the Sinar Mas concessions ... in 2006–2007 is true. Sinar Mas does not have in place the legally required fire prevention policy and measures.' (GP3/8)

[46] RSPO National Interpretation indicators regarding fire prevention:

- Documented assessment where fire has been used for preparing land for replanting (5.5.MAJOR.1)
- Records of implementation of zero burning policy (5.5.MAJOR.2);
- Procedures and records of emergency responses to land burning (5.5.MAJOR.3);
- Presence of appropriate fire extinguishers and facilities, depending on the risks assessment (5.5.minor.1)
- Where limited planting on fragile and marginal soils is proposed, plans shall be developed and implemented to protect them without incurring adverse impacts (Adverse impacts may include ... (e.g. fire risk) in areas outside the plantation (7.4.minor.2)

[47] The REPORTS claim:

- Image E: KPC concession overlaid on a 2006 satellite image (Landsat 7 image). The yellow line highlights remaining forest areas (dark green)
  Image F: [KPC] concession boundaries (red line) overlaid on satellite image taken 5 August 2008 (Landsat 7 image). The yellow line indicates 2006 forest cover whilst the pink area is land that has been cleared between 2006 and 2008 (GP2/11)
  Note: Key claims yellow line indicates intact forest areas in 2006
- INDONESIAN RAINFOREST DESTROYED TO MAKE WAY FOR SINAR MAS' OIL PALM PLANTATIONS (GP3/10)
  Semitau, West KalimantanL, Indonesia. – Location landclearing of KPC (GP3/11, metadata image)

[48] The REPORTS claim:

- The most recent list of IPK approvals for West Kalimantan as of 2008, published by the Ministry of Forestry, does not include … Kartika Prima Cipta … However, satellite images (see Annex, images A–F) reveal [it has] been subject to forest clearance between 2006 and 2008. (GP2/4)

[49] The REPORTS claim:

- OFFENCE 3: CLEARING DEEP PEAT
  During 2009, RSPO member Fauna and Flora International (FFI) conducted an HCV assessment of PT SMART's PT Kartika Prima Cipta concession. The details of this assessment were disclosed during a public consultation in Kalimantan on the 27 October 2009 and confirmed that:
  - the concession contained deep peat (ie deeper than three metres. See Map 1)
  - clearance of this area was already underway (image 10)
  - drainage ditches had already been dug (GP2/7)
- PT SMART had agreed to stop clearance in the concession area following a first field visit by FFI, while the HCV assessment was taking place. However, a field verification mission conducted in August 2009 by FFI and PT SMART confirmed that clearance of peat forest had continued since that first field visit, and further drainage channels had been dug. (GP2/8 & GP3/8)
  some of the peat areas cleared in [KPC] are as much as seven metres deep. … [KPC]'s clearance of these areas is in breach of Indonesian law (GP2/8)
- An assessment conducted by Flora and Fauna International (FFI) revealed that by 2009 Sinar Mas had already begun developing channels in the concession area in order to drain the swamp peatland for its oil palm plantations. (GP3/6-7)
- EVIDENCE Date taken: 14 February 2009, Location: West Kalimantan, Suspect: Sinar Mas – PT Kartika Prima Cipta, Charge: Digging drainage channels on peatland near Danau Sentarum National Park (GP3/5)
  Note: The same claims and map are presented in GP5/9 (ILLEGAL PEAT LAND DESTRUCTION).

[50] The REPORTS claim:

- EVIDENCE, Date taken: 9 October 2008, Location: West Kalimantan, Suspect: Sinar Mas – PT Kartika Prima Cipta, Charge: Fires are frequently burning on Sinar Mas concessions despite it being illegal under Indonesian law since 1999 (GP3/6)
- Note: This image is also used in GP2/5.
- "Hidden" Image: Rainforest on fire due to climate change effects from "El Nino". Jambi Province, Sumatra, Indonesia. Photo by L. Lily / Greenpeace (GP3/8, metadata image).

[51] The REPORTS claim:

- OFFENCE 3: CLEARING DEEP PEAT
  During 2009, RSPO member Fauna and Flora International (FFI) conducted an HCV assessment of PT SMART's PT Kartika Prima Cipta concession. The details of this assessment were disclosed during a public consultation in Kalimantan on the 27 October 2009 and confirmed that:
  - the concession contained deep peat (ie deeper than three metres. See Map 1)
  - clearance of this area was already underway (image 10)
  - drainage ditches had already been dug (GP2/7)
- PT SMART had agreed to stop clearance in the concession area following a first field visit by FFI, while the HCV assessment was taking place. However, a field verification mission conducted in August 2009 by FFI and PT SMART confirmed that clearance of peat forest had continued since that first field visit, and further drainage channels had been dug. (GP2/8 & GP3/8)
  some of the peat areas cleared in [KPC] are as much as seven metres deep. … [KPC]'s clearance of these areas is in breach of Indonesian law (GP2/8)
- An assessment conducted by Flora and Fauna International (FFI) revealed that by 2009 Sinar Mas had already begun developing channels in the concession area in order to drain the swamp peatland for its oil palm plantations. (GP3/6-7)
- EVIDENCE Date taken: 14 February 2009, Location: West Kalimantan, Suspect: Sinar Mas – [KPC], Charge: Digging drainage channels on peatland near Danau Sentarum National Park (GP3/5)

  Note: The same claims and map are presented in GP5/9 (ILLEGAL PEAT LAND DESTRUCTION).

[52] The REPORTS claim:

- Image C: [PIP] concession boundaries (red line) overlaid on a 2006 satellite image (Landsat 7 image). The yellow line highlights remaining forest areas (dark green) (GP2/11)
- Image D: [PIP] concession boundaries (red line) overlaid on satellite image taken 5 August 2008 (Landsat 7 image). The yellow line indicates 2006 forest cover whilst the pink area is land that has been cleared between 2006 and 2008 (GP2/11).
  Note: Key claims yellow line indicates intact forest areas in 2006.

[53] The REPORTS claim:

- OFFENCE 1: FOREST CLEARANCE WITHOUT TIMBER CUTTING PERMITS
  he most recent list of IPK approvals for West Kalimantan as of 2008, published by the Ministry of Forestry, does not include ... [PIP]. However, satellite images ... reveal that [PIP has] been subject to forest clearance between 2006 and 2008. (GP2/4)
- Clearing rainforest for palm oil without the legally required Timber Cutting Permit (GP3/6)
- EVIDENCE, Date taken: 14 February 2009, Location: West Kalimantan, Suspect: Sinar Mas – [PIP], Charge: Clearing rainforest for palm oil without the legally required Timber Cutting Permit (GP3/9).
  Aerial view of land clearing at PT KPC subsidary of sinar Mas Group nearby Sentarum lake Nationalo Parks in West Kalimantan, Indonesia on February 14, 2009 (GP3/9, metadata image)

[54] The REPORTS claim:

- Image A: [PGM] concession boundaries (red line) overlaid on a 2006 satellite image (Landsat 7 image). The yellow line highlights remaining forest areas (dark green) (GP2/11)
- Image B: [PGM] concession boundaries (red line) overlaid on satellite image taken 5 August 2008 (Landsat 7 image). The yellow line indicates 2006 forest cover whilst the pink area is land that has been cleared between 2006 and 2008 (GP2/11)
  Note: Key claims yellow line indicates intact forest areas in 2006

[65] The REPORTS claim:

- OFFENCE 1: FOREST CLEARANCE WITHOUT TIMBER CUTTING PERMITS
  The most recent list of IPK approvals for West Kalimantan as of 2008, published by the Ministry of Forestry, does not include ... [PGM]. However, satellite images ... reveal that [PGM has] been subject to forest clearance between 2006 and 2008. (GP2/4)

[56] The REPORTS claim:

- Image 4. [ALM] boundaries shown in red (Source: BPN Kalimantan Barat, 2006) overlaid on a satellite image taken on 3 June 2004 (Landsat 7 image). The yellow line highlights forest that was still intact in 2004
  Image 5. The same [ALM] concession shown in image 4 overlaid on EO-1 satellite image from August 2007. Months before the EIA was approved extensive clearance had already taken place. The yellow line shows forest that was intact in 2004 whilst the light brown areas show the extent of the clearance (GP2/5)
  Note: Key claims yellow line indicates intact forest areas in 2006)
  Note: Images 4 and 5 (above) are also presented in GP3/9
- EVIDENCE, Date Taken: August 2007, Location: Ketapang District, West Kalimantan, Suspect: Sinar Mas – [ALM], Charge: Satellite evidence shows that [ALM] had cleared nearly 4,000 hectares of forest land before it had obtained its EIA approval. (GP3/9)
  Note: Similar claims are made in GP4/2.

[57] The REPORTS claim:

- CLEARANCE WITHOUT ENVIRONMENTAL IMPACT ASSESSMENT
  Case study 2: PT Agro Lestari Mandiri ([AML])
  [AML] received the required EIA approval in December 2007.29 To get this approval, [AML]'s director signed a written declaration in March 2006 stating that no land clearing for plantation development had taken place [AML].
  In reality, however, [AML] had already commenced land clearing before March 2006: a photograph (image 3) placed in local newspapers in September 2005 shows an inauguration ceremony for clearance and land preparation in [AML], attended by the Head of the Ketapang district. Illegal land clearance therefore started more than two years before the EIA approval was issued.
  Image 2. Statement from the director of [AML], dated 1 March 2006, declaring to Bapedalda in writing that the company had no land clearing activities in [AML].
  Image 3. H. Morkes Effendi, Head of Ketapang District inaugurates [ALM]'s land clearing in Desa Sungai Kelik, 12 September 2005.
  Satellite imagery confirms that nearly 4,000 hectares of land had already been cleared in [AML] by July 2007, months before the EIA was approved (images 4 and 5). (GP2/5)
- EVIDENCE, Date Taken: August 2007, Location: Ketapang District, West Kalimantan, Suspect: Sinar Mas – [ALM], Charge: Satellite evidence shows that [ALM] had cleared nearly 4,000 hectares of forest land before it had obtained its EIA approval. (GP3/9)
  Note: Similar claims are made in GP4/2.

[58] The REPORTS claim:

- [ALM] has an extensive peat dome up to seven metres deep, which according to Indonesian law, means it is illegal to clear forests or develop a plantation in this area. (GP4/1)

[59] The REPORTS claim:

- [In 2006], PT SMART commissions an HCV assessment of the concession. The assessor produces a report in October that shows that the [ALM] estate has an extensive peat dome up to seven metres deep.
  in April 2009, a local employee of [ALM] confirms that there is an Orang-utan nest within the concession. The investigators document active forest clearing in the company's concession near Sihid village, Ketapang, West Kalimantan in an area designated as HCV in 2006.
  A comparison of satellite images from 23 February 2010 and 19 November 2009, confirms that peatland and forest clearance continues in [ALM] concessions. It also shows that approximately 2,300 hectares (of the 6,252 hectares identified as HCV in 2006), has been cleared by [ALM]. (GP4/1)
- MAP A: [ALM] CONCESSION AREA 2004 - FOREST STILL INTACT
  The original [ALM] concession boundary shown in red and the final boundary in orange laid over a satellite image3 taken on 3 June 2004. The green line highlights the forest that was still intact in 2004.
  MAP B: [ALM] CONCESSION AREA 2007 - FOREST DESTROYED
  The same [ALM] concession shown in map 1 laid over a satellite image4 from August 2007. Months before the environmental impact assessment was approved, extensive clearance in previously intact forest areas had already taken place. The green line shows forest that was intact in 2004, while the light brown areas show the extent of forest clearance.
  MAP C: [ALM] CONCESSION AREA 2010 - ENCROACHING ON ORANG-UTAN HABITAT
  The [ALM] concession boundaries laid over a satellite image taken on 23 February 2010. The yellow line demarcates Orang-utan habitat and the green line the outer boundaries of identified High Conservation Value areas.
  MAP D: [ALM] CONCESSION AREA 2010
  Showing deforested versus forested High Conservation Value areas, resulting from a comparison of the 2006 High Conservation Value Forest assessment and a satellite image of February 2010. In this period, about 2,300 ha of High Conservation Value Forest were cleared partially on peat more than 3 metres deep, and therefore illegal to clear. (GP4/3)
- On 14 March 2010, Greenpeace visits [ALM] and documents the continuing clearance of peat and HCV areas in [ALM]'s concession. Greenpeace confirms that by continuing to clear this area, Sinar Mas is destroying Orang-utan habitat, identified by UNEP.
  Testimonies from local villagers confirm that – before the land clearing started – Orang-utans were frequently seen in the area (GP4/1).
- Picture 1 Recently planted oil palm plantations on cleared peatland and Orang-utan habitat. [ALM], Ketapang District, West Kalimantan 22 April 2009, GPS: 1º 36' 27.36"S / 110º 24' 36.96"E ©Greenpeace/Ryo Adna
  Picture 2 Cleared forests on deep peat within the High Conservation Value area in [ALM] concession. Peatland three or more metres deep may not be converted to plantations according to Indonesian law. [ALM], Ketapang District, West-Kalimantan. 9 March 2010, GPS: 1 36' 0.8" S/110 25' 9.2" E © Greenpeace/ Ryo Adna (GP4/4)
  Picture 3 Excavators clearing High Conservation Value area despite Sinar Mas' assurances this would stop. [ALM], Ketapang District, West Kalimantan 14 March 2010
  Picture 4 Cleared forest inside the High Conservation Value area, which Sinar Mas subsidiary PT SMART committed not to clear. [ALM], Ketapang District, West Kalimantan 14 March 2010
  Picture 5 Camp for plantation workers where [ALM] has cleared forest. The area was identified by the UNEP as Orang-utan habitat. [ALM], Ketapang District,West Kalimantan 14 March 2010 (GP4/4)
  Note: Picture 2 also use in GP4/1, picture 4 also used in GP5/8, claims are repeated in GP5/10

[60] Greenpeace claims:

- On 14 March 2010, Greenpeace visits [ALM] and documents the continuing clearance of peat and HCV areas in [ALM]'s concession. Greenpeace confirms that by continuing to clear this area, Sinar Mas is destroying Orang-utan habitat, identified by UNEP.
- Picture 1 Recently planted oil palm plantations on cleared peatland and Orang-utan habitat. [ALM], Ketapang District, West Kalimantan 22 April 2009, GPS: 1º 36' 27.36"S / 110º 24' 36.96"E ©Greenpeace/Ryo Adna
  The area was identified by the UNEP as Orang-utan habitat. [ALM], Ketapang District,West Kalimantan 14 March 2010 (GP4/4)

[61] The REPORTS claim:

- according to the EIA, forest clearance was to be limited to 1,000 hectares in the first year of operations (2008), a further 4,000 hectares would be allowed in 2009, and in 2010 another 5,000 hectares, with not more than a total of 10,000 hectares cleared by 2010. However, satellite imagery indicates that PT KGP had already started land clearing before August 2006 (image 7), two years before its EIA was approved. By August 2009, PT KGP had already cleared about 6,000 hectares of land (image 8).

[62] The REPORTS claim:

- Offence 2: clearance without environmental impact assessment (GP2/5)
  On 17 March 2005, this company obtained an IUP for a concession of 10,000 hectares. But it was only in June 2008 – some three years later – that [KGP] obtained the necessary approval of the EIA from the Governor of West Kalimantan (image 6) ... This is in clear breach of Indonesian law.
  Image 6. Section of the EIA approvals list indicating the approval of the PT KGP EIA in accordance with a letter from the Governor dated 7 July 2008. Source: Bapedalda. (GP2/6)

- Image 7. [KGP] concession boundary in red (Source: BPN Kalimantan Barat, 2006) laid onto a satellite image taken in August 2006 (Landsat 7) The dark green area of forest shows that the majority of this concession had not been cleared by 2006. Clearance had begun in the area within the white circle.
- Image 8. The same [KGP] concession (Source: BPN Kalimantan Barat, 2006) laid onto a satellite image taken in August 2009 (Landsat 7 image) reveals that this area has been cleared and prepared by [KGP] for oil palm planting amounting to approximately 6,000 ha. Bright green areas are maturing oil palm plantations and pink areas indicate land clearance. (GP2/11)
- [KGP] had already started land clearing two years before its EIA was approved. (GP3/9)

[63] The REPORTS claim:

- FOREST COVER IN CENTRAL KALIMANTAN: IMPACT OF OIL PALM CONCESSIONS CONTROLLED BY UNILEVER SUPPLIERS
  Evidence of 2000–2007 deforestation on oil palm concessions PT Bhumitama Gunajaya Agro and [SKU] Usaha controlled by Unilever suppliers IOI and Sinar Mas (GP1/22)

[64] The REPORTS claim:

- February 2008: Oil palm concession [SKU] in Central Kalimantan controlled by Unilever supplier Sinar Mas ... has peatland areas (GP1/13)

[65] The REPORTS claim:

- February 2008: Oil palm concession [SKU] in Central Kalimantan controlled by Unilever supplier Sinar Mas shows clear evidence of burning (GP1/13)

[66] The REPORTS claim:

- February 2008: Oil palm concession [SKU] in Central Kalimantan controlled by Unilever supplier Sinar Mas ... is located on Orang-utan habitat ©Greenpeace (GP1/13)
- ORANG-UTAN DISTRIBUTION IN CENTRAL KALIMANTAN: IMPACT OF OIL PALM CONCESSIONS CONTROLLED BY UNILEVER SUPPLIERS (GP1/22)
  [SKU] controlled by Unilever supplier Sinar Mas. The map shows the concessions are located on Orang-utan habitat. The photos taken during Greenpeace field investigations document ... show the area is important Orang-utan habitat. Coloured dots in the map locate where two of the photos were taken (GP1/25)
- the consultant stated that:
  'An Orang-utan was seen ... in [SKU] in the vicinity of Desa Runtu in early December 2008. Occurrence of Orang-utans has also been confirmed by Runtu Lama villagers and the management of the concession holder north of [SKU] who reported that Orang-utans occasionally move through the forests in its concession. However much of the forest in the northern part of [SKU] has now been deforested.' (GP3/6)

[67] The REPORTS claim:

- 13 April 2008: Crane draining peatland in the vicinity of oil palm concession [TN] controlled by Unilever supplier Sinar Mas (GP1/11)

[68] The REPORTS claim:

- *13 April 2008: Isolated Orang-utan nest in Central Kalimantan in the vicinity of oil palm concession [TN] controlled by Unilever supplier Sinar Mas (GP1/25)*

[69] The REPORTS claim:

- During 2009, RSPO member Fauna and Flora International (FFI) conducted an HCV assessment of PT SMART's PT Kartika Prima Cipta concession. The details of this assessment were disclosed during a public consultation in Kalimantan on the 27 October 2009 and confirmed that:
  - the concession contained deep peat (ie deeper than three metres. See Map 1)
  - clearance of this area was already underway (image 10)
  - drainage ditches had already been dug (GP2/7)
- PT SMART had agreed to stop clearance in the concession area following a first field visit by FFI, while the HCV assessment was taking place. However, a field verification mission conducted in August 2009 by FFI and PT SMART confirmed that clearance of peat forest had continued since that first field visit, and further drainage channels had been dug. (GP2/8 & GP3/8)
  some of the peat areas cleared in [KPC] are as much as seven metres deep. ... [KPC]'s clearance of these areas is in breach of Indonesian law (GP2/8)
- An assessment conducted by Flora and Fauna International (FFI) revealed that by 2009 Sinar Mas had already begun developing channels in the concession area in order to drain the swamp peatland for its oil palm plantations. (GP3/6-7)
- EVIDENCE Date taken: 14 February 2009, Location: West Kalimantan, Suspect: Sinar Mas – [KPC], Charge: Digging drainage channels on peatland near Danau Sentarum National Park (GP3/5)

Note: The same claims and map are presented in GP5/9 (ILLEGAL PEAT LAND DESTRUCTION).