

HCV ASSESSMENT REPORT

PT SATRIA PERKASA AGUNG

Riau, Indonesia

Asia Pacific Consulting Solutions

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FINAL



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WWF Indonesia

WWF International

HCVRN Indonesia

HCVRN International

Forest People’s Program

Eyes on the Forest

The Forest Trust

WALHI

and many others at the local level

Thank you all!!

EXECUTIVE SUMMARY

The HCV Assessment in Riau province focused on five (5) concessions comprising PT Arara Abadi (AA), PT Satria Perkasa Agung (SP), PT SPA Serapung (SPA), PT SPA Koperasi Tani Hutan (KTH) Sinar Merawang (SM) and PT Riau Abadi Lestari (RAL) of all of which provide timber supply to the Asia Pulp & Paper (APP) Group. This particular report presents finding from PT Satria Perkasa Agung (SPA) which is divided into 3 separate districts: Siak Kecil, Dexter and Simpang Kanan.



PT SPA is a forest management enterprise managing an industrial plantation located *Kabupaten* Bengkalis, Pelalawan, Siak, Indragiri Hulu and Indragiri Hilir. Siak Kecil District (SKL) and most of the Simpang Kanan (SKN) district is already developed as plantation. Meanwhile Dexter District (DXR) is located in the large block of forest covered area which is also adjacent to the UNESCO Man and Biosphere (MAB) Reserve of Giam Siak kecil (GSK) – Bukit Batu. Other large forest cover can be found in the eastern and southern part of Simpang Kanan District (SKN). Protected areas of Kerumutan Natural Reserve is located in the eastern part of Simpang Kanan District.

Project Ownership

This project was commissioned by Asia Pulp and Paper Group. Asia Pulp and Paper Group (APP) is a trade name for a group of pulp and paper manufacturing companies in Indonesia and China. The APP group of companies is one of the world's largest vertically integrated pulp and paper companies, with an annual combined pulp, paper, and converting products capacity of over 18 million tons. APP-Indonesia and APP-China currently market their products in more than 120 countries across six continents. Asia Pulp & Paper's Indonesian administrative office is located at Sinarmas Land Plaza, Jalan Thamrin, Jakarta, Indonesia.

At the time of this report, the pulp mills of the Asia Pulp and Paper Group (APP) receive pulpwood from the HTI concessions of 38 suppliers located on the islands of Sumatra and Borneo. This project covers one (1) of those supplies on the island of Sumatra.

Concession Historical Aspects

The history of PT. Satria Perkasa Agung (PT. SPA) can be explained in the following table.

Table 1. History of PT SPA

Year	Illustration
1985	PT. SPA was established in Jakarta on 2 July 1985 based on the Act No 29 on the establishment of limited liability company PT SPA in front of Notary Jhon Leonard Waworuntu and has been formalised by the Ministry of Justice through Decree No. C2-8141 HT.01.01 TH 85 dated 18 December 1985
1996	The work area permit was initiated through proposal of PT. SPA No. 113/IK-VI/96 on the proposal of Industrial Plantation Forest Establishment in Riau Province and is responded by the issuance of Ministry of Forestry Decree No. 1788/Menhut-IV/1996 dated 20 December 1996 on the provision of Industrial Plantation Forest area for PT SPA in Riau Province with the total area of 38.715 ha
1998	Based on the Ministry of Forestry Decree No. 127/Menhut-IV/1998 dated 28 January 1998, the provision of Industrial Plantation Forest area for PT SPA is enlarged adding 51.170 ha so that the total provision is for the area of 83.180 ha
2000	Definitive Decree was given to PT SPA through Ministry of Forestry and Plantation No. 244/Kpts-II/2000 on the provision of natural forest concession in the extent of ± 76.017 ha in Riau Province dated 22 August 2000
2008	PT SPA Company Establishment Deed has undergone several changes and the latest deeds was on the No. 52 dated 15 September 2008 developed by Notary Linda Herawati, SH
2009	On 7 October 2009, the Ministry of Forestry issued Decree No. 633/Menhut-II/2009 on the stipulation of work area boundary of industrial plantation forest of PT. Satria Perkasa Agung in the extent of 77.702 Ha in Siak Regency, Bengkalis Regency and Indragiri Hilir Regency on Riau Province.

Assessment Findings

In an effort to provide APP a result that could be more easily utilized, this report is prepared at the concession (Forest Management Unit) level. The concession report provides:

- identification of the team members and background,
- details on HCV descriptions according to the HCVF Toolkit for Indonesia (2010),
- a discussion of the methodology used to identify potential sites where HCV might exist,
- a landscape perspective in which the concession is operating within,
- results of the assessment,
- Management and monitoring recommendations, and
- Barrier should the company choose to pursue certification in the future.

The following descriptions summarise the results of the HCV identification process:

HCV 1 Areas with Important Levels of Biodiversity

HCV 1.1 Areas that Contain or Provide Biodiversity Support Function to Protection or Conservation Areas

Out of the three existing districts within PT Satria Perkasa Agung concession, Dexter district is the only district directly adjacent with a protected area, which is Giam Siak Kecil – Bukit batu Biosphere Reserve. Nevertheless, all three districts are located in close proximity with protected areas:

1. Siak Kecil District, is located in close proximity with Giam Siak Kecil Biosphere Reserve.
2. Dexter District, directly adjacent with Giam Siak Kecil Biosphere Reserve and is located in close proximity with Bukit Batu Wildlife Reserve.
3. Simpang Kanan District, located in close proximity with Kerumutan Wildlife Reserve.

All of these three districts possess supporting functions for the surrounding protected areas. Either they support area stability, **sink-sources** dynamic function, or as corridors. FME has major roles in the protection of its surrounding protected areas through forest fire prevention, ensuring that it will not spread to the protected areas, or protecting the areas from illegal hunting of protected wildlife.

With regards to protected area within FME Management Unit,

- The whole area of Dexter District is allocated as protected area, as part of the core area of Giam Siak Kecil–Bukit Batu Biosphere Reserve with an area of 25,271 ha.
- Siak Kecil District, the protected area within this district has an area of 1,621 ha.
- Simpang Kanan District, the protected area within this district has an area of 12,213.59 ha, of which, 330.87 ha is riparian buffer zone.

The above internal protected areas can provide support towards biodiversity as habitats or corridors. Furthermore, Dexter district may have the potential to spread flora or fauna into the surrounding areas. This protected area may also function as protection area for fauna population.

HCV 1.2 Critically Endangered Species

During the field study, the team found Meranti Paya (*Shorea platycarpa*) within the concession area of PT SPA which is included in the Critically Endangered (**CR**) category in the IUCN Red List. This particular dipterocarpaceae species was found in Simpang Kanan District and Dexter District. Tiger (*Panthera tigris sumatrae*) was detected in Simpang Kanan District and elephant (*Elephas maximus sumatrae*) was detected in Siak Kecil District. The team observed the feces that is considered as elephant feces, based on the precautionary approach we include the data unless proven otherwise. This applies as well to the Simpang Kanan which is not included in the map of elephant distribution made by WWF. Semanjung Kampar - Kerumutan Landscape is considered as a regional priority conservation area for tiger and can become habitat for around 50 tigers. Simpang Kanan District has an area that belongs to this **TCL**. It is possible that the tiger enters the concession area, which is comprised of acacia plantation.

This is in accordance with what has been stated in Sunarto et al 2012, where a tiger may enter acacia plantation area even though it still requires natural forest as its main habitat. It chooses habitat in the acacia, especially on the areas in close proximity with the rivers and has relatively dense understory vegetation. While sightings of tiger were not observed in Siak Kecil District and Dexter District, the community informed that tiger still exists in the area. The area is included in the **TCU** region (an old version of TCL) of Siak Kecil - Padang Lawas. TCU Siak Kecil-Padang Lawas is categorized at level II which has medium priority and the survivability of tiger is also at medium level. On the designation of TCL, Siak Kecil - Padang Lawas region is no longer designated as tiger conservation landscape, while still being considered to have suitable habitat for tiger. Wibisono & Pusparini (2010) stated that Giam Siak Kecil landscape deserves to be designated as TCL, not only because tiger was found in the area, but also because the area will be designated as Biosphere Reserve.

HCV 1.3 Areas that Contain Habitat for Viable Populations of Endangered, Restricted Range or Protected Species

Within the visited areas of PT SPA, the team found several species of flora and fauna that are important and included in the IUCN Red List, CITES Appendix I and II, protected by the government through PP 7/1999 and are endemic. Through HCV 1.3, habitat within or surrounding management units that contains viable populations of species categorized as critically endangered, endangered, vulnerable, endemic, or protected is identified. HCV 1.3 emphasized protection of **viable population of the species**, and therefore, assessment on population potential viability needs to consider the landscape surrounding the assessment area. The assessment found 15 species of flora, 12 species of mammals, 22 species of birds and 4 species of herpetofauna within the concession, thus there is HCV 1.3 present.

HCV 1.4 Areas that Contain Habitat of Temporary Use by Species or Congregations of Species

While migratory species was not found during the field survey, the area of the FME management unit, especially Simpang Kanan District, is located in close proximity to and is still within one landscape with Important Bird Area (IBA) Kerumutan (Birdlife 2013). It can be said that several wetlands within the management unit area can be used as temporary shelter for the migratory species where the areas are used as crossings, forage for food, and temporary shelter. Other key habitat as required in high conservation value 1.4 such as places to reproduce or nesting areas, such as caves of habitat of bats and swallow, salt water sources for wildlife (*saltlick*) was not found in the field.

HCV 2 Natural Landscapes and Dynamics

HCV 2.1 Large Natural Landscapes with Capacity to Maintain Natural Ecological Processes and Dynamics

Within the concession of FME, Dexter District possess an intact forest block with core zone of more than 20.000 Ha as required for HCV 2.1.

At Simpang Kanan District, while it does not meet the criteria of HCV 2.1, the management unit is part of Kerumutan forest landscape, therefore, it is expected that each management unit activities will not disturb the process of natural ecology dynamics. Meanwhile, for Siak Kecil District, the area has lost its connection with the nearest natural landscape which is Giam Siak Kecil forest block. Another process to be concerned with relates with the dynamics of minerals and water, which will be explained within HCV 4 category on the environmental services.

HCV 2.2 Areas that Contain Two or More Contiguous Ecosystems

Three approaches used to identify HCV 2.2 i.e. contiguous forest ecosystems were based on (1) **differences in elevation**, (2) **contiguous swamp and non-swamp ecosystems and (3) presence of kerangas forest**. Based on the approaches above, there is no area within the management unit of FME that meets the category. In general, the ecosystem transitional area that is the combination of two types of ecosystem is called ecotone. Ecotone is important as it often has both communities of the two ecosystems. An area becomes ecotone when it can be assumed that both ecosystems can be differentiated clearly between each other. Either based on height or based on the land type presence in the two ecosystems. From the three approaches above, the second approach is the most easily recognizable. However, the transitional area of wetland ecosystem and non wetland ecosystem was not found, as almost all areas within the FME concession still retain natural ecosystem cover of wet land ecosystem.

HCV 2.3 Areas that Contain Representative Populations of Most Naturally Occurring Species

HCV 2.3 is determined by identifying a minimum area needed for maintaining the viability of **top predator** species (for example wild cat, tiger and eagle), the existence of top herbivore/frugivore species that is highly dependent on forests or the existence of other species that need broader habitat with lower density (e.g. elephant).

Top predator – Sumatran Island has tiger as its top predator and some species of eagle as bird predators. As for FMU, it is known to be part of the landscape that is habitat to tigers as well as macan dahan (**Neofelis nebulosa**).

Top frugivore – Wildlife species which included in top herbivore of mammals and exist in Sumatra are elephant and rhinoceros, but these species are not found inside PT SPA KTH Sinar Merawang concession. Bird species that are classified as top frugivore and have a role as seed spreaders in forest ecosystems are hornbills and long tail betet (see HCV 1.3 above).

Broad space, low density – Species that have low density and need broader space in Sumatra is Sumatran elephant, Sumatran tiger, and orangutan. But only the Sumatran tiger (**Panthera tigris sumatrae**) was found to be in the FMU concession.

The area of habitat necessary to maintain minimum viable population (MVP) varies greatly between species. Nevertheless, large areas that are not fragmented and cover various ecosystem types have greater potential for sustaining various species than those that are smaller and fragmented with a limited variety of ecosystem types.

This condition is still met by FME, especially for Dexter District. The natural forest area within the Simpang Kanan District of FME is still connected with the kerumutan forest landscape; therefore, it can be categorized as HCV 2.3. While for Siak Kecil District, its area is no longer connected naturally with the Giam Siak Kecil landscape, therefore does not meet the requirement to be designated as HCV 2.3.

HCV 3 Rare or Endangered Ecosystems

In order to find out ecosystems in the category of endangered or rare in HCV 3 is inside the FMU concession, an investigation using a physiographic analysis approach was conducted.

Based on RePPProt (2008/2010) the Sumatra Island according to physiographic approach is divided into four areas which are **the Western Coastal Foothills and Plains, Barisan Mountains, Eastern Plains Hills, and the Eastern Coastal Swamps.**

The concession areas of the FMU are in **the South-Eastern Coastal Swamps** region which is mostly formed by alluvial sediment in shallow sea and more recently from the deposit formation of Kuarter swamp that has been formed at the back of advance mangrove forests. Most of the region consists of swamps with outcrop low dry land where sediment stones are lifted. This region consists of one of the broadest tropical peat swamp forests. Nearly all the areas have been covered by mangrove forests, swamp and riparian forest that linked to rivers and floodplains, lowland dipterocarpaceae forest in dry mineral soil areas.

In general, all areas of FMU are in the category of peat, even though there is a difference between RePPProt data and measurement results on the field in terms of peat.

In the HCV Indonesia toolkit (2010), ecosystems complying with one or more of the following criteria is considered endangered in the definition of HCV 3: (1) in a biophysioecographic unit an ecosystem has lost 50% or more of its initial width; (2) in a biophysioecographic unit, there is an ecosystem that will lose 75% or more of its initial width based on assumption that all the conversion areas in the existing layout can be converted. Ecosystem complied with these criteria is a rare ecosystem because natural factors or natural human ecosystem covering less than 5% of the total area of a bio-physioecographic unit.

The whole concession area that is located on peat ecosystem which makes the whole area to be included in the HCV 3 category. Most of the remaining natural ecosystems within the concession area of FME are inside the protected area. The existence of this natural area needs to be maintained and protected. While other areas already being converted into plantation forest should be managed to maintain its function to protect water system in accordance with HCV 4.1 management.

HCV 4 Environmental Services

HCV 4.1 Areas or Ecosystems Important for the Provision of Water and Prevention of Floods for Downstream communities.

HCV 4.1 areas are found to play a key role in the provision of clean water or to control flooding in downstream communities. The Indonesian Toolkit describes a number of ecosystem types that should be maintained. In Riau this will include: riparian ecosystems and a variety of wetland ecosystems including peat swamp (especially swamp that is still forested), freshwater swamp, mangrove forest, lakes and grass swamps. HCV 4.1 in the concession area of FME, can be classified into 2 groups (i) peat dome and its unified peat hydrology system (ii) Streams (water body and its riparian).

HCV 4.2 Areas Important for the Prevention of Erosion and Sedimentation

Erosion is the result of interaction between soil and water and can be grouped into two categories: (i) **rain and surface run off**, which causes splash erosion, sheet/interill erosion and rill erosion and (ii) **concentrated surface run off**, will lead to **morpho-erosion** such as gully erosion, stream/riverbank erosion and roadside erosion. Factors influencing erosion levels are rainfall intensity (rain erosivity), soil type (erodibility), slope length and gradient, land cover and how it is managed. Based on these types of erosion, areas important for controlling erosion and sedimentation can be defined as areas possessing factors that can prevent, reduce the risk of and control erosion and sedimentation. In nature, such a factor is vegetative land cover. Consequently, areas at high risk of erosion and morpho-erosion with vegetative cover above them are important areas for controlling erosion and sedimentation. Based on explanation in the general discussion section above, the area consists of HCV4.2 in the FME concession area.

HCV 4.3 Areas that Function as Natural Barriers to the Spread of Forest or Ground Fire

These areas are marked by the presence of key elements that have important functions as firebreaks. The important value of such areas is identified from their capacity to prevent or contain actual or potential forest and land fires. Natural firebreaks constitute areas that tend to be wet all year round, or areas that have high moisture levels and relatively low temperatures. A fire break area can be categorised as possessing HCV 4.3 elements if it meets **some** of the following criteria (ProForest, 2003): (i) can naturally prevent, limit or control fires, (ii) covers a large area as a significant barrier to fire and (iii) has or is close to a community settlement, (iv) has or is close to a place of cultural significance (cultural sites, sacred places) and (v) has or is close to a conservation area containing important species or ecosystems. The establishment of HCV 4.3 is done with an approach that views forest fires as a potential disaster. Although there is no record of previous fires, areas of potentially permanent firebreaks defined as HCV 4.3 are found within the concession.

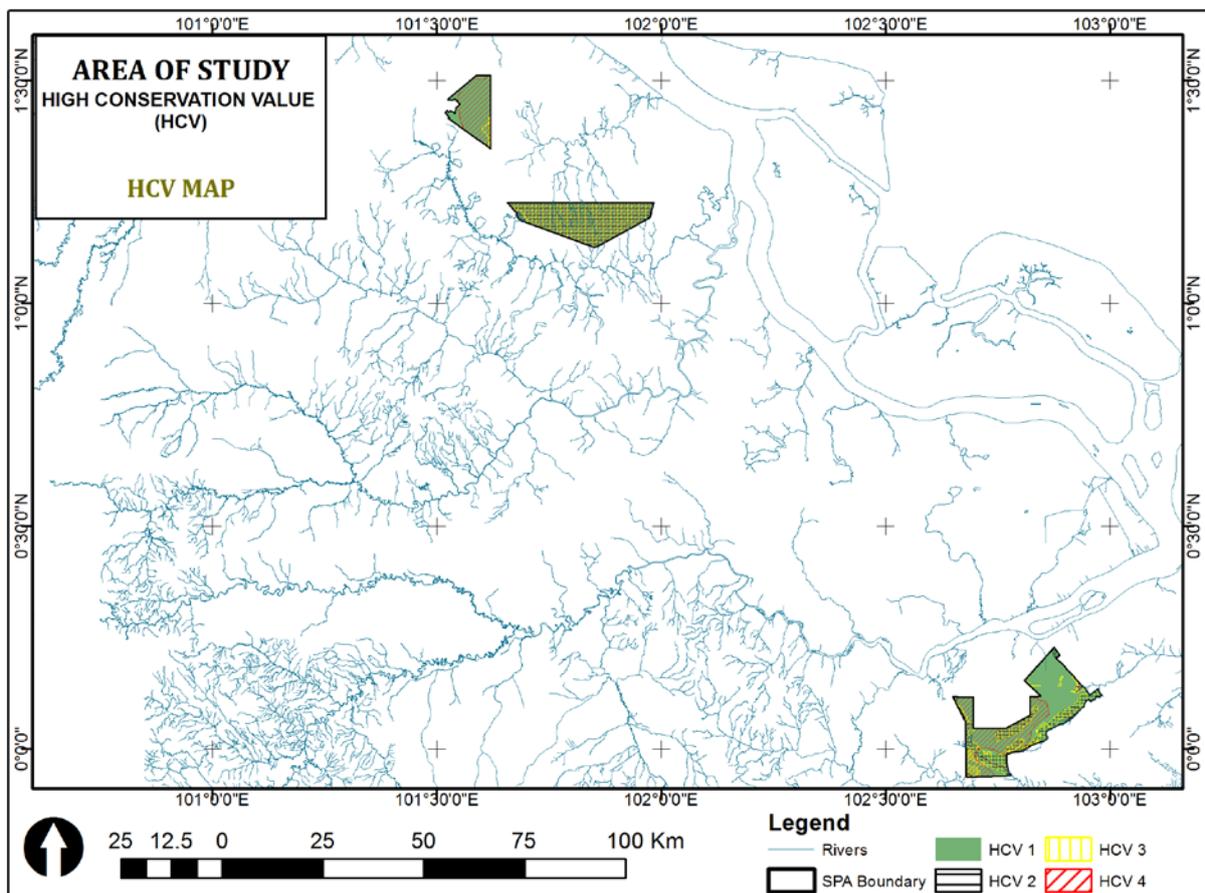
HCV 5 Natural Areas Critical for Meeting the Basic Needs of Local People

There is no HCV 5 found within the concession area of the FME. The community access within the concession area is only for illegal logging, and the activity is not a sustainable natural resources management activity, and cannot be included in the context of designation for HCV 5.

HCV 6 Areas Critical for Maintaining the Cultural Identity of Local Communities

There is no HCV 6 found within the concession area of FME. The community that settled surrounding the concession area does not have cultural connectivity with the FME area in terms of traditional or cultural objects.

The following map and table summarize the HCV management areas identified by the assessment team.



HCV	District (Ha)		
	DEXTER	SIK KECIL	SIMPANG KANAN
HCV1	25,293.92	12,347.91	40,017.96
HCV2	25,271.64	0	12,318.52
HCV 3	24,791.82	594.01	13,832.05
HCV 4	25,293.92	10,842.39	17,957.50
HCV 5	0	0	0
HCV 6	0	0	0

The size of the concession area based on the license is a bit different if compared with the GIS calculated size as shown in the table below. Regarding this discrepancy, the company has stated the following "The determination of concession area size is based on the Republic of Indonesia Ministry of Forestry Decree (Surat Keputusan or SK) for the plantation forest concession license which includes the appended concession map. Boundary in the field was laid down in accordance to the appended SK concession map. There is inconsistency between the calculated area size based on the field boundary and the area size that was stated in the SK. This variation is caused by the digitization process on the SK concession map, which was only available in hardcopy format when the SK was issued, into the company's Geographic Information System (GIS). The company is still in the process of settling the definitive boundary with relevant government institutions. Under the current situation, the company decided that HCV assessment will use the GIS map which is consistent with field condition."

Management and Monitoring Recommendations

APP has stated an intention to conduct an extensive "landscape management planning" process upon completion of HCV, HCS and social impact assessments that will provide a clear, holistic approach to dealing with all of the pertinent issues identified. The stated goal is to conduct extensive stakeholder consultations with government, universities, neighboring landusers, civil societies and communities during that process. **As a result management and monitoring recommendations provided in this report, as well as indicative High Conservation Management Areas (HCVMA) are provided in a generic framework to be used as a "guide" to help develop management prescriptions during this more extensive planning process.** HCV category and sub-category recommendations are provided in the full report and the following major generic recommendations have been provided without specific reference to HCV category or sub-category:

- Additional data for all HCV needs to be collected to supplement that from the assessment team, particularly relating to species presence, locality and potential population since due to time and budget constraints only a small fraction of the total area was able to be sampled;
- All final HCV management areas must be delineated on the ground and adequately protected from encroachment to protect and enhance HCV values present with the use of an appropriate buffer;
- Natural areas, particularly riparian zones and those areas that could be part of a larger concession wide wildlife corridor system connecting protected areas inside and outside the concession areas, need to be rehabilitated and restored with natural, indigenous species;
- Consultation with experts on specific species need to occur to determine when management activities have the most and least adverse effect on disturbance as well as what specific habitat needs are required;
- Hunting and encroachment of HCVMA must be controlled and prohibited, either using company staff, community patrols, government enforcement, civil society or a combination;
- Public education at the community level must occur to stress the importance of the HCV values, what they mean to the people living near the concession and why it is critical to protect and enhance these values;

- Designated staff responsible for HCV management should be assigned within each concession (at minimum concession level) and all field staff and contractors need training sessions explaining HCV values present and the importance of protecting and enhancing them;
- Areas with high populations of HCV 1.2 and 1.3 species should be considered for potential restoration as conservation areas;
- Collaboration with neighboring land users, particularly that can negatively influence HCV values within the concession and at the landscape level, must be undertaken in an effort to protect and enhance these values;
- Alternative species that require less intensive water management for survival and productivity need to be examined for peat soils to reduce the negative impact this has on the soil, hydrology and carbon emissions;
- HCV management prescriptions should be based on best practices instead of business as usual, summarized and made publically available;
- Identification of specific environmental values to monitor in order to determine the health of each HCV value and effectiveness of management programs must be developed and monitored on a regular basis; and
- Periodic (minimum annually) summaries of monitoring results must be prepared and should be made publically available.