

# HCV Assessment Report

## PT SATRIA PERKASA AGUNG - KTH SINAR MERAWANG

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Riau, Indonesia

**Asia Pacific Consulting Solutions**

June 30, 2014

**FINAL**



## ACKNOWLEDGEMENTS

We would like to thank Asia Pulp and Paper Group (APP) and Sinar Mas Forestry (SMF) for providing us the opportunity to help on such a dynamic and significant shift in the approach by the companies in managing their plantation concessions and the additional important high conservation value resources that are contained within. Particularly Ms. Linda Wijaya, Aida Greenbury, Rolf Jensen, Dolly Priatna and Dewi Bramono of APP were invaluable in providing guidance while still allowing for independence throughout the project. Robin Mailoa, Elim , and Adrianto plus the SMF staff at the field level has provided needed support in accomplishing what needed to be done within such a short time frame.

Equally as important, we would like to thank the 80+/- individual subcontractors without whom we would not have been able to achieve the objectives of the project. They worked hard, were dedicated and showed true professionalism throughout the entire period. Although too many to be acknowledged individually, of particular note are Kevin O'Grady of Pinnacle Quality Pty Ltd, Sam Ponder of SDP Holdings Pty LTD, Langlang Tata Buana and Yana Suryadinata are to be commended for their leadership skills in helping to manage the entire field data collection process. We would also like to thank Kenichi Shono of PT Hatfield Indonesia, Martin Hardiono, Iwan Kurniawan Permadi and Ersu Juara for their valuable time in assisting with the overall management of the project.

Finally, without the assistance, advice and guidance of key stakeholders in civil society to help us stay true to the HCV concept and ensure we remain committed to transparency and independence, the following group are just a few of the many that were there for us when we needed.

Greenpeace

WWF Indonesia

WWF International

HCVRN Indonesia

HCVRN International

Forest People's Program

Eyes on the Forest

The Forest Trust

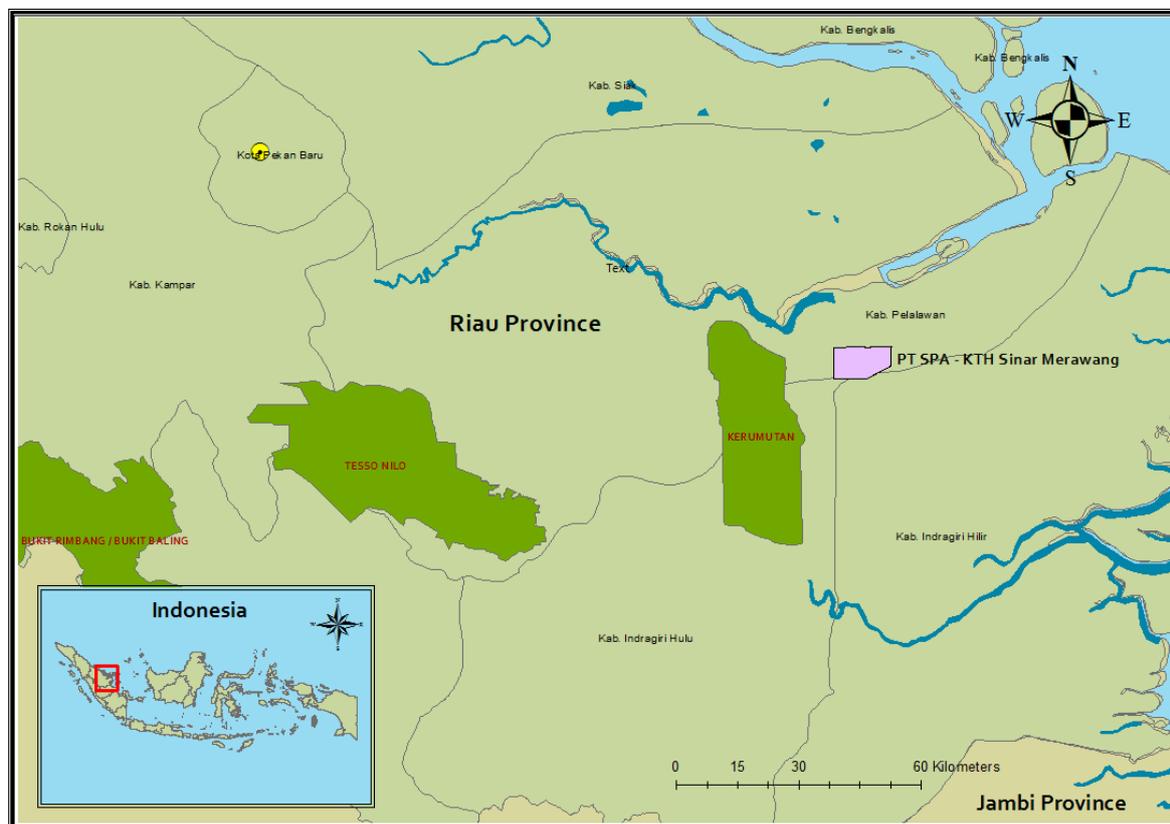
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and many others at the local level

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 SPA Koperasi Tani Hutan (KTH) Sinar Merawang (SM).



PT SPA-KTH is a forest management enterprise managing an industrial plantation located mostly within *Kabupaten Indragiri Hilir* within the Riau Province and only a small portion of the concession located in *Kabupaten Pelalawan Kabupaten Indragiri Hulu*. The majority of the area is plantation pulpwood forests (planted forests) with a larger block of natural forest remaining in conservation forest and *tanaman unggulan* in the southwestern portion of the concession. **Using the maps provided by the company (Serapung, Merawang & Simpang Kanan Districts were incomplete) and comparing the approved plans to the land cover mapping the team found it appears that plantation areas extend into the Konservasi (204 ha of plantation), Tanaman Unggulan (169 ha of plantation) and the Tanaman Kehidupan (245 ha of plantation).** Under P 3/Menhut-II/2008 it is allowable to have plantation in the *Tanaman Unggulan* for high value timber production (not fibre) and within *Tanaman Kehidupan* but not within conservation areas.

### **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**

In the beginning PT Satria Perkasa Agung acquired an allocation for plantation forest by applying for a partnership scheme between the company and the Koperasi Tani Hutan (KTH) Sinar Merawang in Merawang. This was granted by virtue of the Decree of Minister of Forestry and Plantation No. 634/Menhutbun/1999 dated 16 June 1999 which authorized the company with a working area of 10,595 ha.

By virtue of the Decree of Minister of Forestry No SK.19/Menhut-II/2007 dated 5 January 2007 the company obtained a renewal to its IUPHHK covering its plantation forest under the partnership scheme with KTH Sinar Merawang of 9,300 ha.

### **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 (2008),
- 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**

There is no area of PT. SPA - KTH Sinar Merawang directly bordering protected areas. The protected area within PT Satria Perkasa Agung-KTH Sinar Merawang is approximately 3,539 or 38% of the total concession areas and is the riparian buffer of Simpang Kanan River. Protected areas function as protection of population sustainability is increased because of the areas still intact. Concession areas are formerly areas of PT Wirakarya Sakti HPH that suffered illegal logging, thus the remaining trees are mostly protected by the law or are not commercial. Nevertheless, the remaining natural forest area is still in a fairly good condition particularly in conservation areas. The type of ecosystem in FMU area is peat swamp forest. Thus, there is HCV 1.1 present within PT. SPA – KTH.

## HCV 1.2 Critically Endangered Species

Within the area of PT. SPA - KTH Sinar Merawang, flora and fauna species meeting the category of Critically Endangered (**CR**) in the IUCN Red List were not found. But there was indication that Sumateran Tiger (*Panthera tigris sumatrae*) might be present based on information obtained through interviews with community and the staff of PT. SPA - KTH Sinar Merawang Management Unit. Also, the north-west part of the management unit area is included in the Kuala Kampar-Kerumutan TCL (**TCL: Tiger Conservation Landscape**) making it likely they enter the area is used by the tiger. The secondary data was obtained from Greenpeace and WWF, which shows that the whole KTH SM concession is included as tiger habitat, as shown in the figure below.

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

Within PT SPA KTH visited areas, it is found some species of vegetation and wildlife with conservation status considerably protected such as IUCN RedList, CITES Appendix I and II, protected by the government (PP 7/1999) and endemic. In HCV 1.3, is to identify habitat in the FMU and surrounding areas where **viable population** of critical, endangered, endemic, or protected species. HCV 1.3 is emphasized **to preserve species 'population'** hence it is necessary to pay attention to the assessment on the population viability within the landscape of the area assessed. The assessment found 6 species of flora, 3 species of mammals, 10 species of birds and 16 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

Even if there are no migrant species found, the areas of the FMU are located near and integrated into one landscape with the Important Bird Area (IBA) Kerumutan (Birdlife 2013). It can be said that certain wetlands in the FMU areas serve as a temporary stopover area. Aside from being a crossing, it is also a place for foraging and resting. Another keystone habitat as required in HCV 1.4 is a place for breeding and nesting such as cave or habitat of swallows and bats, saltlick for wildlife which is not found in the concession.

## HCV 2 Natural Landscapes and Dynamics

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

In the FMU concession there does not exist a whole forest block with a core zone of more than 20,000 Ha as required in HCV 2.1. **However, the FMU is still part of the Kerumutan forest landscape, thus while not specifically having HCV 2.1, it is important that every FMU activity minimizes disturbance of the natural processes of the ecological dynamics as much as possible.** Meanwhile, another process that the company needs to be aware of at the landscape level is related to soil and water dynamics; this will be explained further in the HCV 4 category on environmental services.

## HCV 2.2 Areas that Contain Two or More Contiguous Ecosystems

Three approaches are used to determine HCV 2.2 which is the sustainability of forest ecosystems based on (1) **height differences**, (2) **sustainability of wetland ecosystem and non wetland**, and (3) **existence of heath forest (hutan kerangas)**. Based on those approaches, it was found that category no 1 and 3 above after field verification does not exist in the concession area. Meanwhile for category no 2, the field verification confirmed that all KTH SM concession areas are in a similar type of ecosystem, **peat swamp forest**, as shown in the figures below. Thus, HCV 2.2 does not exist in PT SPA – KTH.

## 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 extent of habitat required to maintain minimum viable populations is very diverse among species, however broad, unfragmented areas and cover of various types of ecosystem have larger potential to preserve the viability of numerous species in comparison to those of smaller, fragmented areas with limited diversity of ecosystems. The FMU still meets that condition; conservation forest areas of FMU which are still natural and are connected to the Kerumutan forest landscapes are categorized in 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 RePPPProt (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 RePPPProt 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-physiographic unit.

Based on the physiographic approach analysis all concession areas on peat soil are areas included in the HCV 3 category. Nonetheless, the remaining natural ecosystems in the FMU concession are mostly in the conservation areas. These natural areas have to be preserved and maintained. Meanwhile, other areas which have already been converted into forest plantation have to be managed to maintain the hydrological function.

#### **HCV 4 Environmental Services**

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

The peatland inside the PT SPA - KTH Sinar Merawang concession makes them function as water storage areas. Based on its bulk density (BD) values ranging from 0.05 - 0.2 gr/cc and water storage capacity of up to thirteen times its weight, every 1 m<sup>3</sup> of peat soil in these areas will be able to store 0.65 - 2.60 m<sup>3</sup> of water, meaning the volume of peat expands. Disruption to peatlands, such as drying, will reduce their water storage capacity and increase the risk of flooding and drought on that land and in surrounding areas inside the peatland hydrology unit. Thus all of PT SPA – KTH concession is classified as HCV 4.1.

##### **HCV 4.2 Areas Important for the Prevention of Erosion and Sedimentation**

KTH Sinar Merawang concession area has a low risk of soil erosion. The existence of peatlands and the physiographic conditions are flat causing this area not to have a high potential of soil erosion. Peat soil, which is included in histosol soil order, has a lower erodibility, especially under humid conditions. Physiographic conditions also showed soil erosion factors such as slope and length of slope (LS) is also low. Based on this, we can conclude in this area there is no HCV4.2 area.

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

In the natural condition, peatland is always waterlogged so it could act as a deterrent to the spread of fire. The entire peatlands in KTH Sinar Merawang area is in a saturated soil moisture condition which will be effective as a natural firebreak to prevent the spread of destructive fires.

This condition is also supported by the presence of vegetation cover such as secondary forests and forest plantations are located in the concession area. The presence of forest vegetation on peatlands will be able to maintain soil moisture of peatland so that saturated conditions remain. The trigger for fires in this area can be caused naturally by drought to the peat land and also due to human intervention from land clearing. The soil moisture conditions are always saturated and forest cover of peatland can be concluded that the entire PT KTH concession is HCV 4.3 area.

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

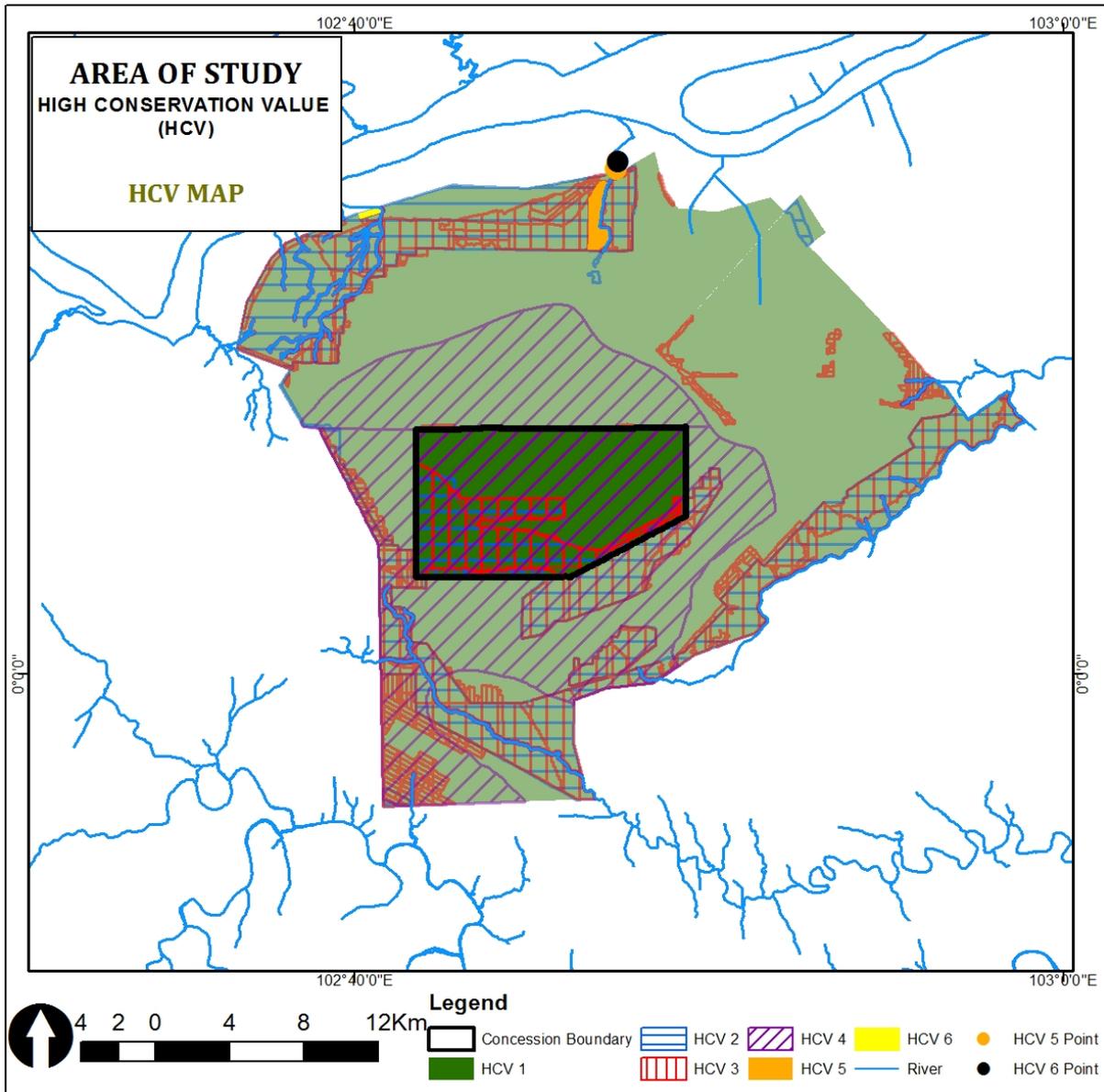
Pelangiran and Simpang Kateman villages which are located outside the FME concession area, are the closest villages to the concession. The community settled surrounding the concession area as transmigrants and do not have any connectivity with the PT SPA – KTH area or the forest that existed before. Thus, there was no HCV 5 found within the concession.

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

Pelangiran and Simpang Kateman villages which are located outside the FME concession area, are the closest villages to the concession. The community settled surrounding the concession area as transmigrants and do not have any connectivity with the PT SPA – KTH area or the forest that existed before. Thus, there was no HCV 6 found within the concession.

The following table and map summarise the HCV management areas identified by the assessment team:

District	Area (Ha)				
	HCV 1	HCV 2	HCV 3	HCV 4	HCV 5
Simpang Kanan	10096.40	3510.96	3458.38	10096.40	NA



**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;
- Periodic (minimum annually) summaries of monitoring results must be prepared and should be made publically available.