

HCV Assessment Report

PT RIAU ABADI LESTARI

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 Riau Abadi Lestari (RAL).



PT RAL is an industrial plantation forest (*Hutan Tanaman Industri, HTI*) that supply wood to the pulp and paper company trading under the registered brand of the Asia Pulp and Paper (APP) group. Based on the RBI data (Rupa Bumi Indonesia), the PT RAL concessions are located within 3 districts/regency; *Kabupaten* Bengkalis, Kampar, and Siak within Riau Province.

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

PT. Riau Abadi Lestari (PT.RAL) is one of the national private company's doing business in the industrial plantation forest, with the company establishment act made by Notary Mudofir Hadi, SH No. 171 dated 21 October 1994 and was further improved through Notary Certificate from Notary Susi Susantijo, SH No. 16 dated 2 May 1998.

The work area of PT RAL designated based on the area provision map on the appendix of Director General of Forest Utilization Decree No. 2779/IV-Set/1993 dated 26 October 1993 and the letter from Forestry Regional Office in Riau Province No. 2390 Kwl-4/1993 dated 11 November 1993 on the area designation for Plantation Forest Transmigration in PT. Riau Abadi Lestari to three management units: Unit Mandi Angin, Unit Sindotim and unit Tasik Serai each in the extent of 4,000 Ha, to have a total management area of 12,000 ha further approved by Ministry of Forestry with the decree No. 542/Kpts-II/1997 dated 25 August 1997. The AMDAL document has been prepared in 1996 and approved by AMDAL commission of Ministry of Forestry through letter No. 199/DJ-VI/AMDAL dated 25 June 1996.

The ten year management plan/ *Rencana Karya Pengusahaan Hutan Tanaman Industri* (RKPHTI) of PT. RAL was approved on 13 July 1999 No. 746/Kpts-VI/1999 and the company has planted Acacia sp during rotation I (1997-2002) on an area of 10.044 Ha and rubber plants on an area of 850 Ha.

In 1996, social conflict such as encroachment, occupation or claim from community occurred which caused a decrease in the planting realization. There was also demand from the transmigrant community for an oil palm plantation in the extent of 1,800 Ha. The demand for oil palm plantation cannot be fulfilled by the company as it relates with the change in forest function which is supposed to be the authority of the Ministry of Forestry. The demand of the community for oil palm plantation was being followed up by the local government of Siak District through the development program of oil palm plantation in 2005 in the extent of 1,050 ha within PT RAL concession area divided into 600 ha in the Sindotim Unit and 450 ha in the Mandiangin Unit.

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 results of the identification can be summarized as follows:

HCV 1 Areas with Important Levels of Biodiversity

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

Of the 3 districts inside the PT RAL concession, only Sindotim directly borders a protection area, i.e. Sultan Syarif Qasim Great Forest Park (Tahura SSQ).

To protect the integrity of the Tahura SSQ protection area a buffer zone should be established in Sindotim district. Other protection areas that the company is obliged to protect are riparian buffer zones. The PT RAL region also has areas allocated as protection areas, which also function as core crop areas. Protection areas in the PT RAL concession region are also HCV 1.1.

HCV 1.2 Critically Endangered Species

Some parts of Tasik Serai and Mandi Angin seem to have been overlapped by the tiger habitat based on the stakeholders input as seen from the figure above. During the Main Assessment, the team found no evidence of the **Sumatran tiger (*Panthera tigris sumatrae*)** being present. However, employees and communities stated that tigers are still present in all of the PT RAL concession districts. Especially since, according to villagers, tigers had been caught in the Mandi Angin district region. Further, looking at (**TCU: Tiger Conservation Unit**) distribution, the PT RAL Mandi Angin and Tasik Serai districts form part of the Siak-Padang Lawas TCU area. Furthermore, based on the survey in the area in close proximity with the concession, the team found three tracks of tigers which explains that tiger still inhabit the surrounding areas (See Figure 19).

On another note, Sumatran elephant (*Elephas maximus sumatrae*) were found in the Sindotim district region and according to information from employees and communities they are also present in the two other districts. Elephant tracks were also found in the area surrounding the concession. A WWF distribution map for 2007 also confirms the presence of elephants in Tasik Serai and Sindotim districts in the PT RAL concession, stating that the population of wild elephants in Riau province had fallen from more than 1000 individuals in 1984 to around 200 individuals in 2007 (WWF 2007).

Elephants sometimes cause damage in the PT RAL region, particularly in Sindotim district where they have reportedly destroyed up to 250 ha of acacia. This destruction occurs because there are no corridors for elephants to pass through in the PT RAL region.

Additionally, 3 species of flora that are classified as Critically Endangered were found within the concession.

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

During visits to the PT RAL concessions several species of flora and wildlife were found with important categories on the IUCN Red List, in Appendix I and II of CITES, are protected under Government Regulation No. 7/1999 or are endemic. HCV 1.3 activities involved identifying habitats in or around the management unit for **viable populations** of critically endangered, endangered, endemic or protected species. The emphasis of HCV 1.3 is **maintaining species populations**, so, in assessing potential population viability, landscapes surrounding the assessment area had to be considered.

A lot of effort, and more time is required to assess population viability than was available during HCV assessments.

As there were no population viability analyses, HCV assessments used landscape **carrying capacity analyses for HCV 1.3 species**, which considers the level and quality of support to the ecosystem from the landscapes closest to the concessions. A total of 3 mammal species and 4 birds species were found that meet HCV 1.3 classification with no flora or herpetofauna found meeting this.

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

Key habitats like those required in HCV 1.4: caves as breeding or nesting sites and habitats for swiftlets and bats and saltlicks were not found on the ground in PT RAL concession area. The location of 'special areas' where animals and birds congregate to seek food or minerals was not found for the area. There were also no saltlicks found as most of the area has been converted either to plantation or oil palm estate.

One of the key habitats identified according to the toolkit is the local wildlife corridors used by animals to move among different ecosystems in an effort to track seasonally available foods. However, natural ecosystem that may be used by the wildlife was not apparent or is geographically far from the concession area. Most of the area of PT RAL has been designated as HCV 1.2 area which should provide the necessary protection for species that may use the area as corridors or nesting site if they exist. Furthermore, the survey conducted during the main assessment as well as interviews with local community indicated that whatever key habitats present in the past, no longer exist. Thus, the team found that HCV1.4 does not exist within the concession.

HCV 2 Natural Landscapes and Dynamics

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

FME concessions do not have intact forest blocks with core zones of more than 20,000 ha as recommended in HCV 2.1 as shown in figure below. However, some districts still constitute part of surrounding natural forest landscape, so no MU activities should disrupt the dynamics of natural ecological process. Merawang district forms part of the Kerumutan landscape, Pusaka district forms part of the Danau Besar Pulau bawah landscape, Melibur and Sebang districts are in the Giam Siak Kecil landscape, while Nilo district is part of the Tesso-Nilo landscape.

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*** which can be analysed from two figures below with none have elevation difference of more than 500 m, (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 as can be seen in Figure below. However, during the main assessment, it was found that the transitional area of wetland ecosystem and non wetland ecosystem especially in Mandiangin was no longer found as natural areal and has been converted either to plantation or oil palm oil, there is no significant difference in elevation as can be shown in two figures above, and no kerangas forest was found within the area of PT RAL concession. Thus, it can be concluded that HCV 2.2 is not present within PT RAL.

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

The area of habitat needed to sustain MVP (minimum viable population) varies greatly between species. Nevertheless, large unfragmented areas covering various ecosystem types have far greater potential for sustaining viable populations of various species than smaller fragmented areas do. **This condition is not met by the PT RAL concession.**

Natural forest areas in the PT RAL concession have already been fragmented from the surrounding natural landscape, and even production and non-protection areas are still in an unsafe condition. **The large number of land claims and conflicts** mean any landscape that could still be reconnected will be difficult to restore properly. Therefore, even though the region still has umbrella species like elephants, as a landscape it cannot be considered properly viable to support naturally occurring populations of various spesies in a natural landscape. Therefore, PT RAL has no regions with HCV 2.3.

HCV 3 Rare or Endangered Ecosystems

The PT RAL concession areas are located in the South-Eastern Coastal Swamps. Most of the **South-Eastern Coastal Swamp** region was formed from alluvial sediment in shallow sea and more recently from quaternary peat deposits formed behind mangrove forests. Most of the region still consists of swamps with occasional rocky outcrops in dry lowland areas where base sedimentary rock has been pushed up. This region contains one of the largest tropical peat swamps. Almost the entire region was once covered by peat swamp forest, swamp forest or riparian forest linked to rivers and flood plains, and lowland dipterocarp forest in areas with dry mineral soil.

Generally, the whole of the PT RAL concession comes under the peatland category, though there were some differences in terms of peat depth between Repprot data and measurements taken on the ground.

In the Indonesia HCV toolkit (2008), ecosystems that meet one or more of the following criteria are considered endangered in the HCV 3 definition: (1) if within a single physiographic region an ecosystem has declined in extent by 50% or more; (2) if it is expected to decline by >75% under future scenarios of forest conversion assuming all conversion areas in prevailing spatial plans can be converted. Ecosystems meeting the following criteria can be considered rare ecosystems: If, as a result of natural factors or human intervention, an ecosystem constitutes less than 5% of the total area of a biophysiological unit. Based on the physiographic analysis we can conclude that all types of secondary forest in the PT RAL concession region constitute endangered ecosystems as they are heavily degraded lowland rain forest.

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 in the concession area of PT RAL can be classified into 2 groups (i) Catchment areas in the upper watershed, and (ii) rivers and tributaries in upstream watershed. There were 5 catchment areas and 9 rivers identified as HCV 4.1 within the PT RAL concession.

HCV 4.2 Areas Important for the Prevention of Erosion and Sedimentation

HCV 4.2 determined by using DEM that generated into contour and slope. The slope factor used as a limit was the coefficient value of slope length and slope gradient factors in regions categorised as upstream areas (slope >15%). All areas with steep slopes and containing highly erodible soils, as well as riparian zones along major rivers and tributaries are identified as areas critical for preventing erosion and sedimentation. Steep areas within the upstream areas particularly need to be protected by maintaining vegetation cover necessary to prevent erosion. Maintaining healthy and adequate buffer zones provide a filtration effect that removes significant sedimentation from runoff prior to it entering the streams, rivers and other water bodies. In general HCV4.2 has been found within areas of the PT RAL concession can be grouped into 2 types as follow (i) Upper reaches with dense vegetation that can control erosion and sedimentation and (ii) riparian buffers to control morpho-erosion and filter sediment from surface run off. There were 5 catchment areas and 9 rivers identified as HCV 4.1 within the PT RAL concession.

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 forest fires as a potential disaster. Although there is no record of previous fires, areas of potentially permanent firebreaks defined as HCV 4.3, of which 5 were found.

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

The community income which is associated with the FME concession areas for further delineation as HCV 5 areas is the revenue from the sale of honey, which grows within the concession areas. Many trees with beehives which are located on the boundaries of the concession area are well maintained by residents or specific community groups. *Sialang* trees produce honey with volumes that can suffice the needs of the community and furthermore be sold outside the village and sub-district.

Kepungan sialang 1 is an area that consists of 5 closely distributed sialang trees, while *Kepungan sialang* 2 consists of 7 widely distributed sialang trees. The location of the *kepungan sialang* area is in a conservation forest that also becomes a buffer for the Parapakan River.

The *kepungan sialang* areas still have bees and bee nests that produce honey and are being collected regularly by several families of Sakai Tribes. The collected honey can be sold or used as one of their livelihoods to fulfill the family needs.

The families of ethnic Sakai that are collecting honey from *sialang* areas have a desire that Sinar Mas Forestry (PT RAL) could keep the *sialang*, conducting delineation and protection of the areas, and if the surrounding areas of the sialang are to be planted with acacia, they hope it will be an acacia species with flowers that could be used by bees for food and produce honey. The honey from *sialang* trees is collected every 4 months by groups of honey collectors and is a traditional practice. It can produce up to 250 kg of honey each time they conduct the collection and is sold for IDR 45,000/kg. The group sells the honey to people in Desa Mandiangin.

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

Based on FGD, interviews and field observation in villages associated with PT. RAL, the location of HCV 6 areas associated with the PT. RAL concession area are:

Customary Forest of Buluh Apo

The area claimed to be the customary forest of the Sakai Tribe is located behind SMP Negeri (government owned Junior High) school in Desa Mandiangin. The community believes that Buluh Apo is a sacred place and the meditation place of Datuk Munti Kato (the ancestor of the community in Desa Madiangin) and where he developed communications with spirits around the area. Although the tomb of Datuk Munti Kato is not located within Buluh Apo, the community believes that Buluh Apo is the appropriate place for the community to have spiritual communication with the spirit of Datuk Munti Kato, the founder of Desa Mandiangin.

Customary Forest of Pematang Ibul

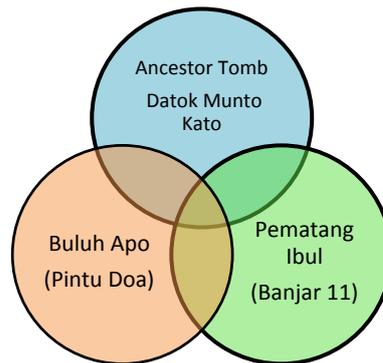
The customary forest of Pematang Ibul is located at Banjar 11 Gas Pipe within the plantation forest concession of Sinar Mas Forestry. Pematang Ibul is a bamboo forest that grows naturally in the swamp and based on the information obtained from the community, the area was similar to that of Buluh Apo. The bamboo in Pematang Ibul has been removed and replaced many times with plantation forest but the bamboo has kept growing and now occupies its original habitat.

The Sacred Tomb of Datok Munti Kato

The community, especially the Sakai Tribe in Mandiangin, believe that the founder of Desa Mandiangin is Datok Munti Kato of the Sakai Tribes. Based on interviews with the descendants of Datok Munti Kato, it is reported that he passed away when he was 180 years old and is buried in an old rubber plantation in Dusun Makaib Saat near the Mandiangin River.

At present, the descendants of the three datuk are staying in Desa Mandiangin and hold important traditional positions and are in administrative positions such as Head of Hamlet. To preserve the Burial of Village Ancestor, the traditional forest of Bulu Apo in Makaib and Pematang Ibul in Banjar 11 was managed by the Traditional Leader of Sakai Tribe in Desa Mandiangin as direct descendant of Datuk Munti Kato.

According to the community, especially Sakai Tribe in Desa Mandiangin, there is a close relationship between Buluh Apo, Pematang Ipul and the Tomb of Datuk Munti Kato. The three have become the three pillars of identity for Sakai Community in Desa Mandiangin.

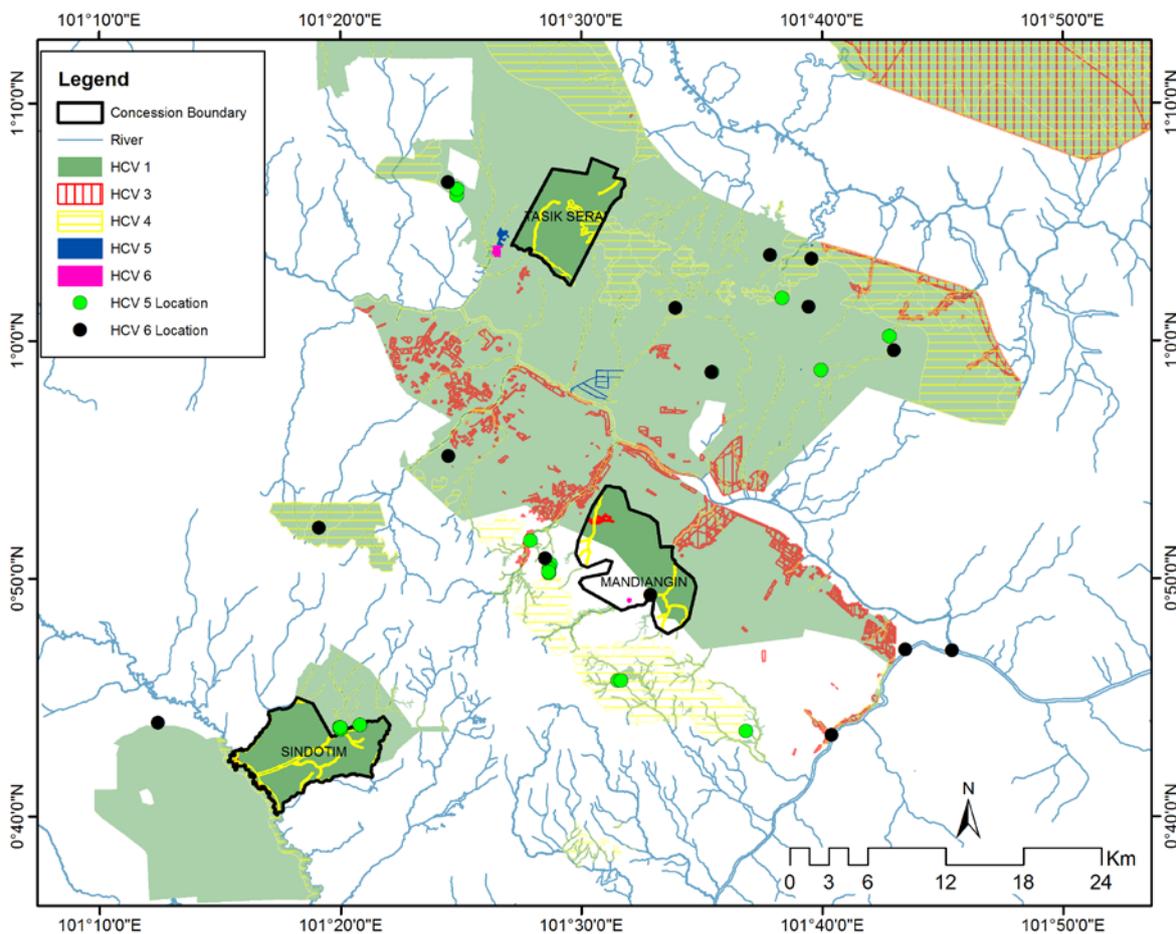


Based on the above information, the community expect that their customary forest of Buluh Apo and Pematang Ibul is maintained due to the following reasons: 1) important resource for obtaining medicinal plants and bamboo, 2) sacred places that connect them with their ancestor, Datok Munti Kato, 3) corridors and sanctuary for important wildlife (leopard, bear, python, and black tailed monkey (owa), and 4) water catchment (swamp) area. The bamboo in Buluh Apo or Pematang Ibul is a non-traded commodity but managed for subsistence such as for fences and poles for homes.

The following table and map summarizes the HCV management areas identified by the assessment team. 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 above. 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."

HCV	Hectar (Ha)			
	MANDIANGIN	SINDOTIM	TASIK SERAI	Grand Total
1	3856.52	5287.13	4407.09	13550.74
2	Not present	Not present	Not present	Not present
3	67.29	66.13	Not present	133.42
4	191.69	582.50	541.20	1315.39
5	*	*	*	*
6	8.23	*	*	8.23

*Areas for HCV 5 in the form of honey trees, burial site, and sacred ground are not calculated in the hecterage of the table.



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.