

Biological diversity, or better known as biodiversity, is a variety of living things - including different species of fauna, flora and micro organisms – and the ecosystem they form in a particular area or region. The loss of such variety will threaten this intricate ecological web of life.

The world is rapidly losing this precious ecological diversity primarily due to increasing population which consequently leads to increasing use of finite resources and increasing pollution. This is further exacerbated by irresponsible human practices such as illegal logging, slash-and-burn agriculture and animal poaching.

At Wilmar, we believe that economic growth can be achieved in a way that fulfils the triple bottom line of **People, Planet and Profit**. We manage our renewable natural resources in a responsible and sustainable manner, integrating conservation needs and developmental priorities.

Preserving Biodiversity and High Conservation Value Forests (HCVF)



We are committed to sustainable palm oil production, based on sound management and active engagement with the different stakeholders in the palm oil supply chain.

One of the ways in which we engage our stakeholders is through the Roundtable on Sustainable Palm Oil (RSPO). The RSPO is a global, multi-stakeholder association involving players along the entire palm oil value chain. It promotes the use and growth of sustainable palm oil through a set of uniform and universally-accepted sustainability standards, otherwise known as the RSPO Principles and Criteria (P&C).

Principle 5 of the RSPO P&C relates to environmental responsibility as well as the conservation of natural resources and biodiversity. As a commitment to the RSPO P&C, we take our environmental responsibility seriously.

Wilmar upholds a policy that runs the gamut of environmental practices. We conduct environmental and social impact assessments prior to any land development. Natural habitats that are found to be rich in biodiversity and cultural values, especially the High Conservation Value (HCV) areas, are set aside as conservation areas. We are embarking on ecological restoration projects. We are beefing up our own team with technical expertise. We also work with local and international conservation experts to seek well-rounded feedback and recommendations. We even hire our own forest rangers to protect the conservation areas.

High Conservation Value (HCV) Forests

According to Forest Stewardship Council (FSC), HCV Forests is defined as forests of outstanding and critical importance due to their high environmental, socio-economic, biodiversity or landscape values. The HCVs form the basis of the HCV assessment framework and is designed to preserve the sanctity of these forests.

The High Conservation Values are:

- HCV 1—significant concentrations of biodiversity values (migratory, endemic species, etc)
- HCV 2—large natural landscapes (e.g. forests) where species exist in natural patterns of distribution and abundance
- HCV 3—rare, threatened or endangered ecosystems
- HCV 4—provides basic ecosystem services in critical situations (e.g. watershed protection, erosion control)
- HCV 5—fundamental to meeting basic needs of local communities (e.g. subsistence, health)
- HCV 6—critical to local communities' traditional cultural identity (e.g. areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities)

For more information, please visit www.hcvnetwork.org.

High Conservation Value Forest Assessments

We are committed to HCV area assessments prior to any new plantation development. A HCV assessment is a comprehensive and methodological survey of the landscape, based on the HCV framework. It is conducted by independent experts. If the study reveals the existence of HCVs, Wilmar will not develop the area. This is also in line with the criteria stipulated within the RSPO P&C framework.

In 2007, we worked with the Malaysian Environmental Consultants (MEC) to conduct HCV assessments on about 120,000 hectares (ha) of land in Central Kalimantan, the Indonesian part of Borneo. Prior to MEC's involvement, the World Wide Fund for Nature (WWF) did a preliminary assessment to assess the HCV potential in the same area. The final report was released in 2009, after consultation with WWF. Similarly, we also worked with an independent consultant — Daemeter Consulting — with expertise on technical services relating to the management of forest and agricultural landscapes. Both MEC and Daemeter undertook a series of HCV assessments on our plantations in West Kalimantan, Indonesia, on about 175,000 ha of land.

Such an exercise helps to improve our environmental management of areas with high biodiversity and conservation values. The evaluation report will identify areas of exceptional HCVs, followed by recommendations for a suitable management plan to maintain and enhance those values.

For example, when the HCV area study in Central Kalimantan revealed evidence of *orang utans* on our land, we set aside about 4,000 ha of land to be established as an *orang utan* sanctuary. We are planning a partnership with an environmental non-governmental organisation (NGO) to manage the *orang utan* habitat. This is a crucial project, as there is an ordered closure of all the *orang utan* sanctuaries by the Indonesian government by 2015. We have hired a primatologist, who will work together with our conservation manager and our prospective partner, for this project.



HCV 1—endemic species like *orang utan*



HCV 2—a protected forest



HCV 3—peatland swamp forest



HCV 4—riparian zone



HCV 5—presence of subsistence farming



HCV 6—burial ground

Segama River Riparian Ecological Restoration

Our Sabahmas Plantation in Sabah, East Malaysia, is a bio-diverse rich estate as it harbors abundant wildlife, including endangered and endemic species. Its north-eastern boundary is shared with Tabin Wildlife Reserve — a state-protected area — while its western boundary is the Segama River. Rainbow Ridge in the north-eastern side provides an efficient buffer for the wildlife to move between Sabahmas and Tabin Wildlife Reserve.

Amongst the variety of resident wildlife in the riparian area, the Segama River habitat plays host to some of the endangered species listed on the IUCN (International Union for Conservation of Nature) Red List of Threatened Species. They include the Proboscis Monkey, the Silver Leaf-nosed Monkey and the seasonal Borneo Pygmy Elephant.

To safeguard the sanctity of this area, we have undertaken to rehabilitate the riparian zone along the portion of Segama River that is adjacent to our plantation. The objectives of this project are:

1. to manage, enrich and rehabilitate about 382 ha of the Segama River riparian area;
2. to develop successful riparian management, enrichment and rehabilitation methods which can be adapted for implementation throughout Wilmar's operations; and
3. to develop and implement a community development plan which, amongst others, provides for sustainable income source to elevate the communities' economic status.



How a Riparian Reserve works

The main function of a riparian reserve is to mitigate the impacts that agriculture has on the quality of water.

The riparian reserves, otherwise known as streamside forests, have complex ecosystems that provide food and habitat for the aquatic communities, as well as help control pollution from sediment and soil erosion. They minimise soil loss or erosion by trapping sediments.

In doing so, it serves as a buffer between the agricultural landscape, the rivers and other water bodies.

Recognising our inexperience in riparian reserve management, a Memorandum of Understanding (MoU) with the Forestry Department was signed in the presence of the Chief Minister of Sabah at the Regional Forum on Forest Ecosystem Connectivity and Corridors to support us with technical advice. Part of their counsel includes recommendations on the tree species to plant. We have started the process of seed collection for propagation.

We are also engaging other sources of expertise. For instance, we work with Dr Glen Reynolds from the Royal Society SE Asian Rainforest, who also works in the Danum Valley Conservation Area (Sabah). His expertise and experience in ecological restoration will add value to our riparian restoration work.

The following pictures shows some of the common animals found in our plantations:



Common Porcupine



Malay Civet



Slow Loris



Leopard Cat



Sambar Deer



Crested Serpent Eagle

Game Warden Programme

Illegal poaching and trading of endangered animals is a huge issue in the state of Sabah, East Malaysia. With limited monetary and human resources, the Sabah Wildlife Department faces the functional challenges of providing an effective safeguard against illegal poachers.

To this end, we support the Sabah Wildlife Department with our own ranger programme. We operate a unit force of rangers to protect the wildlife – especially iconic species like orang utans and Sumatran Rhinos — from illegal poachers mainly in the Rainbow Ridge Conservation area and the Tabin Wildlife Reserve in Sabah.

Wilmar spends about USD 60,000 every year on this programme, supporting a dedicated enforcement team of 16 rangers, two vehicles and a speed boat. The rangers conduct regular patrols in the conservation areas, complementing the current 8 rangers from the Sabah Wildlife Department.

Known as the Rainbow Ridge Game Wardens, the programme was set up in September 2008 to:

- protect daily patrols within Tabin and Rainbow Ridge and increase road blocks on any road leading out of Tabin



Source: <http://www.tabinwildlife.com.my/www/default.asp>.

Tabin Wildlife Reserve

Located in the eastern part of Sabah, Malaysia, on the island of Borneo, the reserve comprises an area of approximately 123,000 hectares. First created in 1984, it is rich in biodiversity and serves as a home to some of the highly endangered and endemic species in Borneo. The three largest mammals of Sabah, namely the Borneo Pygmy Elephant, the Sumatran Rhinoceros and the Tem-badau are all found within the reserve.

Rainbow Ridge Conservation Area

As a contiguous hill extending from Tabin Reserve into our Sabahmas plantation, the Rainbow Ridge Conservation area serves as a wildlife corridor between Sabahmas and Tabin Reserve. First created in 2001, the total land area is approximately 527 hectares and includes about 150 hectares of land formerly cleared for oil palm planting but has since been abandoned. The area has short regenerated jungle vegetation, as an extension of the feeding ground for the grazing animals.

- provide protection with a focus on frequently-poached species

The rangers are empowered by laws under the Sabah Wildlife Conservation Enactment (1997-2002), which grant the rangers enforcement power to make investigations, enter and search buildings or other premises, and even seize any weapon, machinery or vehicle suspected of use in committing wildlife offences. The rangers are also empowered to arrest people who are suspected of involvement in the illegal trade, without any warrant required.

Their routine operation activities consist of road block checks, patrols within Tabin and our conservation area within our plantations, as well as boat patrols along the Segama River flowing through Tabin. Our plantation land is adjacent to Tabin and the Rainbow Ridge conservation areas.

The complementary value of our rangers to the efforts of the Sabah Wildlife Depart is evident: in the first eight months of operations of our patrolling unit, the total number of arrests increased significantly. Since June 2009,



Road blocks conducted in early mornings



Searching of vehicle for illegal game meat



Our game wardens in full uniform

poaching activities has slowed down dramatically in the Tabin vicinity. Furthermore, there is a reported increase in wildlife, especially those which are commonly hunted as game meat, such as the deer species and wild boars.

Going Forward

We will continue to improve upon our environmental practices, and to look into new and innovative ways for partnerships.

We will step up our patrolling efforts and provide additional resources to support our rangers; governmental and environmental agencies.

We are looking to develop wildlife corridors to enable wildlife migration between biodiversity areas and other natural habitats.

We will continue to enhance our knowledge on conservation, especially biodiversity within the plantation landscape. We are collaborating with a number of international scientists studying biodiversity on several of our oil palm estates. These scientists come from several reputable academic institutions such as the University of Cambridge, the University of York and the University of Cumbria. We hope to eventually promote the sharing of knowledge within the Group's operations, as well as with other oil palm companies.

For more information, please email csr@wilmar.com.sg