A monthly digital magazine

# HUTAN HARAPAN

## IMPROVING FOREST PROTECTION IN HUTAN HARAPAN

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Hutan Harapan's forest protection team is at the frontline of protecting the ecosystem restoration concession (ERC) area from illegal activities and forest fires. One of their biggest challenges is to efficiently and effectively patrol and monitor an area of 98,000 ha. Located in the Sumatran lowlands, there are no natural barriers and with limited resources patrols whether on foot or by motorcycle need to be combined with the latest technology to keep up with the rapidly changing conditions on the ground.

In order to improve data collection and analysis, work is underway to upgradethe Spatial Monitoring and Reporting Tool (SMART) which uses information collected from patrols to inform managers about the distribution and intensity of threats to wildlife and forests. To date, the SMARTpatrol data collection has been done by filling out a manual tally sheet forms and then input the data into the SMART system in the computer once the patrols returned to the camp.

Additional time taken to entry the data means a loss of opportunity to report patrolling results as soon as possible. Depending on the amount of the data, it could take 3 to 7 days for all of the records of a patrol team to be inputted into the system to produce a report.

Supported by Fujitsu Japan, Hutan Harapan management is now streamlining the data collecting system by integrating SMART with the CyberTracker<sup>™</sup>, application that is based on Global Positioning System (GPS). CyberTracker<sup>™</sup> allows forest patrols to gather large quantities of geo-referenced data for field observations at a speed and level of detail not possible before.

The application can be installed on a smartphone to record any type of observation including coordinates and photos, thus doing away with inputting data manually. The data is then transferred into the SMART system for further analysis and reporting. Hutan Harapan's forest protection team have already participated in two training courses facilitated by Burung Indonesia on how to

CyberTracker™ use application. As Burung Indonesia Forest **Biodiversity** Advisor, Agus Utomo noted, all data moving collection to a digital platform takes time application as the needs to be tested under field conditions. Going forward, each forest protection team will be equipped with CyberTracker™ the application on their smartphones.\*\*\*





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## HUTAN HARAPAN'S BIODIVERSITY: BUILDING SUPPORT THROUGH THE FRIENDS OF HARAPAN NETWORK

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Maintaining and enhancing the rich biodiversity in Hutan Harapan are key to restoring the remaining Sumatran lowland forest. In the southern portion of the concession, tracks of the Sumatran tiger (*Panthera tigris sumatrae*) and Sumatran elephant (*Elephas maximus sumatranus*) are commonly found.

Meanwhile, in the area known as Badak, there is 1.6 metre high waterfall surrounded by rich flora and fauna. The flowering plant Pasak Bumi *(Eurycoma longifolia)*, known to have properties that can cure a variety of ailments is common in this area. The sounds of birds, primates and other animals can be heard along the forest trail leading to the waterfall.

Traces of theTapir (*Tapirus indicus*) and the Sun bear (*Helarctos malayanus*) can also be found in this area. Just as interesting, are the old forest trees such as Berumbung (*Adina minutiflora*) and the Petaling (*Ochanostachys amanteacea*), which is becoming increasingly difficult to find.

"Hutan Harapan's rich biodiversity supports ecotourism development and research," according to the Director of Operations of PT Reki Lisman Sumardjani. Hutan Harapan already has ongoing research partnerships with national and international universities. Ecotourism is very much in its early stages as the infrastructure is being developed.

In order to broaden public support for Hutan Harapan, PT Reki has created a "Friends of Harapan" (Sahabat Harapan) network where the public is invited to join.\*\*\*

## ACACIA: AN ENVIRONMENTAL PEST

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In the southern part of Hutan Harapan known as Meranti, there are two location totaling 1,659 ha that are planted with Acacia *(Acacia mangium).* Planted by a subsidiary of a government corporation, PT Inhutani, in the 1990s, well before the area was reclassified as an ecosystem restoration concession, the acacia has become a perennial headache for the current management.

Acacia is one of the most widely used fast-growing tree species in plantation forestry programmes in Indonesia. Used by both the pulp and paper and timber industries, it is a singlestemmed evergreen tree or shrub that grows to 25-35 m in height. But in the case of Hutan Harapan acacia is an exotic or invasive plant and its spread poses a threat to native habitats by competing with indigenous vegetation and reducing native biodiversity. It spreads easily through wind-borne seeds and once theytakes root the trees are extremely difficult to eradicate.

Over the years PT Reki has proposed a number of strategies to get rid of the acacia. In 2011 its application to remove the acacia by harvesting was rejected by the Ministry of Forestry and Environment (KLHK) since ecosystem restoration concessions are not allow to harvest trees for timber or pulp, even if they are exotics. It was estimated that PT Reki could have generated nearly USD 5 million by selling the acacia for pulp. The funds could have been used not only for diversifying Hutan Harapan's income sources, but also for investment in restoration activities in the area. As an alternative to large scale harvesting, the KLHK recommended that the acacia be gradually replaced.

In order to test the most proficient means of removing the acacia and rehabilitating the area, the Harapan Harapan research team has prepared experimental plots. Each plot has a mixture of slow growing speciessuch as ironwood or *ulin (Eusideroxylon zwageri)* and mahogany *(Swietenia Mahagony Jacq)* and, fast growing tree species such as agarwood *(Aquilaria malaccensis)* and Jelutung *(Dyera costulata)*.

For acacia trees older than five years in these plots, thinning is done by peeling the bark of the tree to the cambium. Acacia trees under five years old are cut down. The plots will be monitored and maintenance will be conducted every 6 months. The trial is being conducted on 54 plots each measuring 50x50 meters, using three treatments planting, planting and thinning and control plots.\*\*\*



Hutan Harapan is the first ecosystem restoration concession in Indonesia managed by PT Reki as a result of joint initiative of Burung Indonesia, the Royal Society for the Protection of Birds, and BirdLife International. Of total 98,000 ha, 52,000 ha lies in South Sumatera and 46,000 ha in Jambi. Hutan Harapan is aimed to conserve natural habitat of globally threatened species, the critically endangered lowland rainforest, and collaborate with local communities in managing Hutan Harapan as a productive landscape.



# HUTAN HARAPAN: AN IDEAL SITE FOR OUTDOOR EDUCATION

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Communicating the importance or appreciation of Hutan Harapan'srich biodiversity is critical if the ecosystem restoration concession is to thrive amidst the various pressures on the site such as encroachment or the illegal wildlife trade. The "Tumble in the Jungle" mountain bike race in October 2017 sought to generate interest in Hutan Harapan as a potential site for adventure tourism.

As a follow up to the race, Hutan Harapan is now creating programmes for a variety of activities to attract visitors to experience the outdoors. The activities will emphasize hands-on, real-world learning experiences that are expected to help visitors develop stronger ties to their community, build new friendships and enhance their appreciation for the natural world.

With the assistance of a consultant, Pinang Sebatang, weekend educational packages are being designed for different age groups and interests. Given that there are numerous towns surrounding Hutan Harapan and Jambi is only 3 hours away there is considerable potential to be developed in schools and post-secondary institutions.

According to the Head of Ecosystem Management Division, Yusup Cahyadin, the target is to bring a group of ten to thirty students to Hutan Harapan every month for a weekend stay. The camping facilities are now available that can accommodate 10 platoon tents with a total capacity of 100 people, equipped with 10 bathrooms and 10 toilets.

A variety of forest trails will give visitors first-hand experience with the concession's flora and fauna. The two kilometre forest trail around lake Tiung Luput, not far from the main camp cuts across mixed secondary forest where the tallest trees are from the *Dipterocarpacea* family. Visitors will also hear birds singing up in the canopy and late in the day, witness the gibbon monkeys swinging through the trees. The lake itself has 25 freshwater fish.

Exploration of the outdoors is supported by films on ecosystem restoration, discussion groups and even meetings with the local communities. The rubber processing unit is a good introduction to learning about how latex is collected from the forests and is eventually transformed into rubber that is found in the everyday products.\*\*\*



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@hutan\_harapan

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