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HUTAN HARAPAN

NEWSLETTER

THE BATIN SEMBILAN INDIGENOUS PEOPLES AND ACCESS TO EDUCATION

About two kilometers from Hutan Harapan's base camp there is a "Besamo" elementary school with an enrollment of 43 children, 18 boys and 23 girls from the ages of 7 to 14. The two teachers, Rio Afrian and Teguh Rianto must adapt a state education curriculum to the needs of the children.

The formal school setting is often not conducive to learning so the teachers have established a "jungle school" where lessons in reading, writing and counting take place under a tree. The natural setting gives the children more freedom to play while learning.

Overall education levels are still low in the Batin Sembilan community because once children are finished elementary schools, they have to move about 10 kms away for junior or middle school which is beyond the financial means of most families. In addition, children often go into the forest with their parents for weeks at a time so it is difficult to maintain any sort of continuity in their education.

As a result there are few children who continue and finish their junior or senior high school. In Mei 2018, three students from the Besamo school took the National Final Examination (USBN) for elementary school students and passed. Since 2008, when the school was established, only 12 students have taken and passed the exam.

At the provincial level there is a network of NGOs and educational institutions that are pooling their resources to improve the educational opportunities in indigenous communities. Hutan Harapan's teachers to join the network which will allow them access to additional resources.*

AMPHIBIAN DIVERSITY IN HUTAN HARAPAN

Hutan Harapan's secondary forest and network of rivers, lakes and swamps contain a wealth of flora and fauna. Some of the most important inhabitants of Hutan Harapan's complex ecosystems are frogs and toads. To date 55 species of amphibians have been indentified, some of which are classified as Vulnerable (VU) and Near Threatened (NT) based on IUCN's Redlist.

The diversity of amphibian life in Hutan Harapan is well documented in Andre Jankowski's doctoral research from the University of Hamburg, Germany. From 2011 to 2014 he conducted a study of amphibians in 30 locations in a range of habitats from rivers, swamps, standing pools of water to tall trees. Jankoski recorded a variety of amphibians such as; flying tree frogs (*Rhacophorus pardalis*/ Herlequin Flying Frog, Herliquin tree Frog); Cinnamon frog (*Nyctixalus pictus*/Cinnamon Frog, Painted Indonesian Treefrog, White-spotted Treefrog); and Frog King (*Limnonectes blythii*/ Blyth'giant frog).

Flying tree frogs are unique because they live high up in the forest canopy and descend to the ground when it wants to breed in rivers and swamps. Eggs are deposited in a foam nest attached to vegetation overhanging a pond or other bodies of water. The frog can reach 20 cm and 12 cm wide.

In contrast, the Cinnamon frog grows to about 35 mm in size, is brown or reddish brown with white to yellow spots on the body. Their finger and toe tips are dilated. The frogs breed in tree holes having water, dropping their tadpoles into the water bodies below. Arboreal in nature, they are often found on shrubs and lower tree canopy in primary and secondary forests.

Finally, the Blyth river frog or giant frog inhabits streams with gravel and rocks.Their skin is smooth on the dorsum, with or without scattered tubercles or longitudinal skin folds. They are brownish, grey, or yellowish above and white or yellowish below.Males build a nesting hollow in a sandy stream bed area, and the larvae develop in streams.Large adults can weigh more than 1 kg.

Of the 55 amphibians species in Hutan Harapan, the *Kalophrynus cf. Punctatus*/Litter Dotted Sticky Frog) and the giant *Limnonectes macrodon*/Fanged River frog are classified as Vulnerable. There are six species that are classified as Near-Threatened, including the cinnamon frog. In all cases their habitat is shrinking due to deforestation. Prevention of further deforestation is the most important conservation measure.*

INDIGENOUS COMMUNITIES AND DISASTER RISK REDUCTION

According to the World Bank, there are approximately 370 million indigenous peoples worldwide, in over 90 countries and make up 5% of the global population. While indigenous peoples own, occupy or use a quarter of the world's surface area, they safeguard 80% of the world's remaining biodiversity. Yet when natural disasters strike such as forest fires or floods it is often the indigenous peoples who are the most vulnerable.

Natural and human induced disasters can have far-reaching impacts in terms of mental and physical health, food security and education opportunities. This is the case with the indigenous peoples that live in and around Hutan Harapan who more often than not have been pushed to the social-economic margins as their traditional lands have been converted into timber or oil palm plantations. They lack capacity and the supporting infrastructure to address disasters.

In May 2018 Hutan Harapan sponsored a 2 day disaster risk reduction training for 17 representatives of four indigenous communities in Jambi province, Orang Rimba Bukit Duabelas, Orang Rimba Jalan Lintas, Talang Mamak, and the Batin Sembilan.

With the support of the province's Red Cross, Disaster Management Agency (BPBD) and a local NGO, KKI Warsi, participants shared their ancestral knowledge about the environment and experience with natural disasters while at the same time learning about potential disasters in their environment and how to mitigate them.

For many of the participants this was the first time they learned about the links between climate change and natural disasters.

IMPROVING CONSERVATION EFFORTS IN HUTAN HARAPAN WITH DRONES

One of the on going challenges at Hutan Harapan is how to monitor developments in the 98,000 ha concession effectively and efficiently. Located in the Sumatran lowlands, Hutan Harapan does not have any natural barriers thus making it difficult to control all entry points, not to mention monitoring fire threats, encroachment, illegal logging or potential conflicts between wildlife and humans.

Unmanned aerial vehicles (UAVs) also known as drones, are increasingly being used to support conservation efforts throughout the world. They are being used to monitor protected areas, collect data in inaccessible regions, count wildlife populations, and even to track and arrest poachers.

Over the past four years Hutan Harapan has been using drones on a small scale but is now taking steps to integrate them into their overall monitoring strategy that will soon allow forest patrol teams in particular to monitor and respond to changing conditions in real time.

One of the limitations to their use in Hutan Harapan to date has been the limited number of personnel that know how to use drones. To address this, in the beginning Mei 2018, PT Restorasi Ekosistem Indonesia conducted a 6 day training for 20 Hutan Harapan staff that included participants from the forest protection, firefighting, research and GIS divisions.

Participants were trained in, amongst others, how to operate the drones and data processing, by the Indonesian Drone Aviation Association (APDI) certificate holder trainer.

Hutan Harapan is planning to expand its fleet of drones from 3 to at least 6 in the coming months. Each field office will be equipped with a drone which will allow patrol teams to expand the area under surveillance as well as assist them in determining which areas are most at risk from illegal activities or forest fires. The drones will also be used for vegetation surveys and forest carbon assessments.

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.

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