

Restoring the forest for future needs



Hutan Harapan research team along with LIPI researcher. Picture: Hutan Harapan | Adam Ibnu

The *Dipterocarpaceae* Family: A Key Stone Species in Hutan Harapan

In Hutan Harapan 1,311 plant species have already been identified and it is estimated that there are still more to be found. This amounts to 88% of all plant species found on the island of Sumatra. A keystone species of Hutan Harapan's forests, is the *Dipterocarpaceae* family. The *Dipterocarpaceae* are a family of 16 genera and about 695 known species of mainly tropical lowland rainforest trees. These trees provide fruits, pollen, nectar, and habitats for myriad forms of life. The larger *dipterocarps* are often considered climax species, meaning that they dominate in regions made up of mostly primary forest. Some species can grow quite large; three genera - *Dryobalanops*, *Hopea*, and *Shorea* - regularly produce trees of over 80 meters in height. Not to be neglected is that some of the species of this family are of major importance in the timber trade. Some species are now endangered as a result of overcutting, extensive illegal logging, and habitat conversion.

To better understand the extent of the *Dipterocarpaceae* species in Hutan Harapan, in late August 2021, Hutan Harapan research team collaborated with biologist Deden Girmansyah from the Indonesian Institute of Sciences (LIPI) to conduct further research of the *Dipterocarpaceae* species based on a number of *Dipterocarpaceae* monitoring plots that Hutan Harapan has established

dating to 2010.

Thus far Hutan Harapan has recorded 38 tree species belonging to the *Dipterocarpaceae* family which are spread throughout the secondary forest. According to Deden, Hutan Harapan has several trees from this family are resin producers which are a source of income for the Batin Sembilan. "The identification of resin-producing trees in Hutan Harapan needs to be further improved to become a source of data for the public. And it is important for Hutan Harapan to be saved," said Deden.

Of the 38 species, there are six species classified as critically endangered (IUCN), namely *Anisoptera megistocarpa*, *Dipterocarpus haseltii*, *Hopea mengarawan*, *Shorea palembanica*, *Parashorea lucida*, and *Vatica venulosa* and seven (7) species included in the endangered category are *Anisoptera costata*, *Shorea bracteolata*, *Shorea dasyphylla* Foxw., *Shorea dasyphylla* Fox., *Shorea pauciflora*, *Shorea teysmanniana*, and *Dipterocarpus retutus*. If these species go extinct, with them goes all of the life that they support. "Saving Hutan Harapan is the same as saving the *Dipterocarpaceae* which are categorized as endangered and critical," concluded Elva Gemita-Manager of Research and Development of Hutan Harapan. (ROHMAT EKO S.)

Community Partnerships

Building Sustainability in Hutan Harapan

The forest partnership agreement was a long time in coming. When it was finally signed there were smiles all around. On 26 July 2021 the farmer's group, Berjuang Bersama (Struggle Together) consisting of 48 families signed a forest partnership agreement with Hutan Harapan at the office of the provincial forest agency in Jambi. One of the most contentious issues was the fate of the 161.9 ha of oil palm that had already been signed by farmers in the Kunangan Jaya 1 area in the northern part of Hutan Harapan. "Based on the Ministry of Environment and Forestry's Regulation 9/2021, the farmers will be able to cultivate the oil palm for 25 years," according to the Head of Jambi Forestry Service, Ahmad Bestari. During that time the farmers have to start intercropping the oil palm with other types of plants. After the 25 years the oil palm is to be replaced by agroforests. Bestari reminded the farmers that the partnership agreement emphasizes land management that is environmentally friendly.

The head of the Berjuang Bersama group, Misgianto declared that, "In the future we want to become independent farmers and support forest protection activities with PT REKI." In line with Misgianto's statement, PT Reki's Director of Operations, Adam Aziz hopes that the farmer's group will abide by the partnership scheme as regulated by the government and support restoration efforts. Community management can protect forests against degradation and deforestation on the one hand, and impact positively on the economic and social wellbeing of local communities. As part of the agreements, Hutan Harapan is planning to develop business partnerships with the community.

To date, Hutan Harapan has established 11 forest partnership agreements with 11 community groups covering 407 households with a total area of 5,674.44 ha. As part of the agreements, PT REKI has developed 130 ha of rubber agroforestry with farmers. In the future, PT REKI will continue to persuade groups that are eligible to participate in the partnership agreements and jointly restore forests that can improve people's lives. (HOS/R. DJOHAN)



The signing of the Forestry Partnership Paper (NKK) by the Kunangan Jaya 1 residents with Hutan Harapan/PT REKI on July 26, 2021 at the Jambi Provincial Forestry Service office. Photo: Hutan Harapan|Hospita



Nani, Batin Sembilan woman (left) was harvesting corn with Hutannya Harapan Community Partnership team. Picture: Hutannya Harapan | Ayu

Agroforestry and Food Security in Hutannya Harapan

Nani, a Batin Sembilan woman from the Simpang Macan Luar group, was beaming with pride as she displayed the sponge luffa and corn crops to the Hutannya Harapan Community Partnership team. “We don’t need to buy vegetables anymore. We can harvest chilies, sponge luffa, corn, eggplants and greens beans,” she declared.

For the Batin Sembilan in Hutannya Harapan planting secondary crops is new, because traditionally, they only know root crops, such as cassava. Both the nomadic and semi-nomadic Batin Sembilan have always planted cassava around their homes as a staple food. Consumption patterns have changed however, with the expansion of oil palm plantations and the presence of migrants. Whereas, previously the Batin Sembilan relied on the forest for their carbohydrates, vegetables and protein, they now buy rice and vegetables from outside the forest area by selling forest products such as resin, dragon blood, honey, and rubber. Only protein needs are still maintained by fishing and hunting animals.

Agroforestry — the integration of trees and shrubs with crops and livestock systems, has the potential to address food security in a time of changing land use and climate change. In addition, agroforestry can contribute to carbon sequestration and strengthen rural livelihoods through provision of ecological and economic benefits. Planting trees along-side crops creates microclimates that shade crops from intense sun and rain and protect from pests, erosion and floods; supports animal production; and improves soil fertility. “In order to improve food security and livelihoods of the Batin Sembilan, PT REKI plans to develop two hectares per family,” said PT REKI President Director Mangarah Silalahi. Currently, only about 100 ha of rubber agroforestry have been developed for 220 Batin Sembilan families. Convincing the Batin Sembilan community to develop agroforestry is not easy. In one instance, it took the Hutannya Harapan team took almost two years to convince a group of the Batin Sembilan of the value of the approach.

Ilawati, another Batin Sembilan who has started to enjoy the results of the agroforestry program stopped hunting with her husband and children to focus on her agroforest. “We’re not hunting anymore. We want our plants to grow well, not to be disturbed by pests.” In addition to planting secondary crops, Batin Sembilan also grow crops such as rubber, durian, soursop, avocado, guava, areca nut and other trees of economic value as the mainstay of future income. Forestry plants around the Batin Sembilan homes are usually dominated by jelutong (*Dyera* spp), agarwood (*Aquillaria malaccensis*), meranti (*Shorea* spp) and pulai (*Alstonia* spp). Indeed, by adopting agroforestry practices, smallholder farmers are able to increase their food security while simultaneously sequestering carbon, creating new economic opportunities, and enhancing essential ecosystem services. (Desna MZ)

The Covid-19 Vaccination Program comes to Hutannya Harapan

“Oh... it doesn’t hurt at all,” laughed Samsir, after being vaccinated at the Bungku village Health Center on August 8, 2021. Samsir, who is also a member of the Hutannya Harapan’s Community Wardens, admitted that he initially refused to be vaccinated. But he changed his mind after Susani, the Besamo Clinic nurse at Hutannya Harapan explained to him the importance of the vaccination in fighting the spread of COVID-19. Samsir along with 19 other of the Batin Sembilan were also vaccinated that day.

To date, there have been no reports of the Batin Sembilan in Hutannya Harapan contracting COVID-19. Nevertheless, they are a priority for vaccination by the District’s Covid-19 Task Force because they are a vulnerable group. Healthcare services are extremely limited and they must travel up to two hours to obtain access to better quality medical facilities.

The 19 Batin Sembilan who were vaccinated then joined other Batin Sembilan groups at Simpang Macan Luar where the Head of Bajubang Police, Iptu Frans Sipayung, donated 5 kg of rice to 106 families. The day after being vaccinated, Susani confirmed that the vaccinated Batin Sembilan were all in good health. “Usually they experience an increase in their appetites, but there were no severe symptoms,” said Susani. On September 6, 2021, all nineteen of the Batin Sembilan participated for the second vaccination. Susani noted that there were still many of the Batin Sembilan that had not been vaccinated due to several reasons, including the fear of needles. (HOS|SUSANI)



Rosdianto being vaccinated at Desa Bungku’s public health center 8 August 2020. Picture: Hutannya Harapan | Susani