



# COLLECTIVE ACTION FOR PEATLAND FOREST PROTECTION AND RESTORATION

**Lessons Learned from the Katingan  
Mentaya Project Community Engagement**

06/2021



# Restoring the Ecosystem



## Threats to Peatland

The conversion and degradation of peatland ecosystems threatens biodiversity, increases the risk of fires, increases carbon emissions, reduces soil quality, and can have a negative impact on local community wellbeing and livelihoods.


The drivers of peatland forest conversion and degradation are complex and varied, and include the expansion of oil palm plantations, the development of industrial timber forests (Hutan Tanaman Industri/HTI); the expansion of food stock agriculture; illegal logging; land and forest encroachment; forest fires; mining activities; and land banking.



## A Brief History of Key Developments

Mischief of peat ecosystem due to conversion and degradation is causing degradation of biodiversity, an increase of carbon emission, the reduction of soil quality and disruption of local community livelihood, up until social conflict. This mischief is caused by expansion of oil palm plantation, the development of Industrial Timber Forest (Hutan Tanaman Industri/HTI), expansion of food stock agriculture, illegal logging, land and forest encroachment, forest fire, mining activity, and land banking.

The initiative of Green House Gas (GHG) Emission reduction had been going on globally. This initiative was taken as an improvement on the current global condition that is being threatened by global warming and climate change. The Kyoto Protocol in 1997 establishes the Clean Development Mechanism (CDM), a United Nations-run carbon offset scheme. Indonesia ratifies the Kyoto Protocol via government act number 17/2004 as a follow-up and a basic reference for policies related to climate change that ruled in act number 6/1994.

A lush tropical forest with dense green foliage and sunlight filtering through the trees. A white horizontal line with a green curved end is positioned near the top of the page.

Despite the fail in establishing the rate of GHG emission, Bali Roadmap (2007) had given a way for Indonesia to keep on striving and fight for the interest of third largest tropical rain forest in the world. Indonesia delegations urged international world to pay compensation for countries that are willing to maintain its forest. This includes pledges on REDD+, Reducing Emissions from Deforestation and forest Degradation, with enhancements of carbon stocks.

At this point, there is a space for carbon trade initiative. Dharsono Hartanto, who attended the 13<sup>TH</sup> UNCCF/COP in Bali (2007), saw those conditions as an opportunity for a prospect business. In 2007, PT Rimba Makmur Utama (RMU) was founded in 2007 to manage the Katingan Mentaya Project (KMP), a restoration and conservation initiative with the objective of protecting and restoring a large natural peatland forest in Central Kalimantan, to benefit the climate, biodiversity and local communities. At the same year, RMU submitted ecosystem restoration permit application to the Government of Indonesia (GOI).

Meanwhile, international negotiations related to climate change keeps on going. Paris Agreement was released in December 2015 in Paris, France, and attended by 195 delegations of different countries in the world.

On the other hand, RMU got its permit of area management from Forestry Ministry through Decision Letter No 734/Menhut-II/2013. RMU stands as part of real contribution for GHG emission reduction.

“From 2007/2008 up to 2013, over the first six years I was the only employee,” said CEO RMU, Darsono Hartanto as quoted from Maryati, 2019.

RMU gets a permit to manage 149.800 hectares of peat land in Central Kalimantan. The area is managed by principle of ecosystem restoration, in order to restore peat land ecosystem condition that functions as a giant carbon stock. Furthermore, sustainable management on this area is also ensuring water system, biodiversity conservation, forest fire prevention, and empowering local community.

Community-Based forest management is expected to provide positive advantages for local community and ecosystem. At this point, RMU is challenged to give its best effort for people and world’s benefit. Katingan Mentaya Project is the icon of its effort.

# Introduction: The Climate Crisis, the Loss of the Natural Environment and the Katingan Mentaya Project

---

The urgency to act to mitigate the climate crisis has intensified in recent years, with an increasing number of commitments from nations and corporations around the world to reduce greenhouse gas (GHG) emissions.

As climate science has improved, there has also been growing global awareness that, alongside a rapid shift to clean energy and the decarbonisation of industries, the protection and restoration of the natural world is essential, especially the protection of significant carbon sinks like peatland, mangroves and forests.

International discussions on how to respond to rising global temperatures have been underway for at least three decades, most notably through the meetings of the United Nations Framework Convention on Climate Change (UNFCCC).

In 1997, the Kyoto Protocol included the recommendation of offsetting carbon emissions through the Clean Development Mechanism (CDM), which Indonesia ratified with the government act number 17/2004.

In 2007, the United Nations Climate Change Conference (UNCCC) took place in Bali, which resulted in the Bali Road Map, a two-year process designed to lead to binding agreements at the 2009 Copenhagen Conference. While the agreement in Copenhagen ultimately stalled, the Bali Road Map did set out the framework for Reducing Emissions from Deforestation and Forest Degradation (REDD+). REDD+ was supported by the Indonesian delegation, which had urged the international community to recognize the threats to tropical forests and to establish a financial mechanism to support countries in their efforts to protect carbon-rich forests.

Among the audience in 2007 was Dharsono Hartono, a former Wall Street executive who had witnessed first-hand the power and influence of financial markets. For Dharsono, the most efficient and effective way for large-scale forest protection to work was to treat it as a business so as to ensure long-term sustainability.

Inspired by the UNCCC, later that year, Dharsono and his partner Rezal Kusumaatmadja founded RMU, with the primary objective to protect and restore threatened forest ecosystems, designed around community-based forest management and financed through the voluntary carbon market.

After a rigorous period of investigation and project design, RMU secured the ecosystem restoration permit application from the Government of Indonesia (GOI) for a concession area in Central Kalimantan and set about developing the Katingan Mentaya Project.

The Katingan Mentaya Project is an Ecosystem Restoration Concession (ERC) covering 157.875 hectares of peat swamp forest in Central Kalimantan.

The project is managed through the principles of sustainable land use, consistent with the REDD+ framework. Through the protection and restoration of the carbon-rich natural environment, the project is contributing to reduce climate change impact; while safeguarding the habitat for biodiversity; and supporting the wellbeing and livelihoods of local communities living around the forest area. The project activities are also contributing to multiple targets within the United Nations Sustainable Development Goals (UN SDGs).

# Katingan Mentaya Project in Numbers

The primary goal of the Katingan Mentaya Project is to contribute to mitigating climate change by ensuring the carbon stored in the peat soil and the above ground biomass is prevented from being converted into GHGs through land clearance, forest degradation and peat soil oxidation.

Following the framework of REDD+ and the need to demonstrate scientific and project management integrity, the project has been fully verified by independent, third-party auditors, against the Voluntary Carbon Standard (VCS), a globally-recognised and highly credible carbon standard by the US-based standard setter Verra. Part of the criteria for achieving verification involves demonstrating:

- **Additionally** - that without the project, GHG emissions would be significantly higher and that the project has analysed and mitigated threats to the forest carbon stock.
- **Permanence** - that the project activities and the related avoided emissions are guaranteed over time.
- **Non-leakage** - that the project activities have not resulted in shifting deforestation and related emissions elsewhere.

In addition, the project has also achieved gold level verification against the Climate, Community and Biodiversity Standard, also by Verra.

Based on its accreditation status, the project finances its activities by the Verified Emissions Reductions (VERs) that are generated through the avoidance of CO<sub>2</sub> emissions.

Project size

**157.875**  
hectares



Contributing to

**9 SDGs**

- Certified against Voluntary Carbon Standard
- Triple-gold certified against Climate, Community and Biodiversity Standard

Surrounding communities:

**34 villages**  
**38.801 people**  
**9.781 households**



Generating

**7.451.846** verified emissions  
reductions per year

- Protected IUCN Red List species:
  - 5 critically endangered (including more than 5% of the remaining Bornean Orangutan)
  - 12 endangered
  - 37 vulnerable

1

## Climate

- Reducing GHG emission at 7.451.846 ton per year through deforestation and prevention of forest degradation, land-and-forest fires and peat drainage.
- Improving the function and ecological function by landscape scale through ecosystem restoration.

2

## Community

- Increasing quality-of-life and poverty alleviation in project zone by creating jobs and sustainable business opportunities.
- Increasing the community's resilience through improvement capacity to deal with ecological risks.
- Improving environmental services to increase community prosperity in the project zone comprehensively

3

## Biodiversity

- Ensuring stable and healthy population of flora and fauna inside the project zone by reducing and eliminating trigger factors of deforestation and forest degradation.
- Increasing natural habitat and ecological integrity through ecosystem restoration.
- Estimates over 5% of global population of orangutans (over 4.139), 9.789 gibbons and more than 550 proboscis monkeys roam in the area.
- 67 mammal species (1 critically endangered, 5 endangered, 13 vulnerable and 21 protected)
- 185 bird species (2 critically endangered, 6 vulnerable and 43 protected).
- 49 reptile species (3 endangered, 3 vulnerable and 4 protected).

# Peat Soil, the Threat of Fires and Methods of Mitigation



**The Katingan Mentaya Project is located as part of the Peat Hydrological Unit (Kesatuan Hidrologi Gambut-KHG) of Sungai Katingan-Sungai Mentaya. This is one of the largest KHGs in Central Kalimantan with a surface area of approximately 254,522.24 ha.**

The KHG of Sungai Katingan-Sungai Mentaya is characterized by deep peat soil; hydrological networks, such as canals; and dense vegetation cover.

Peat is a carbon-rich soil formed over thousands of years and consists of water and partially decomposed organic material, such as trees and plants. In its saturated form, peat is a very effective carbon sink, but when the above-ground vegetation is cleared and the soil drained, as often happens in the case of land conversion, the dried peat can release large quantities of CO<sub>2</sub> emissions through the process of oxidation, and it also becomes highly susceptible to fire. When this happens, vast stores of carbon can be released as atmospheric GHG.

For the Katingan Mentaya Project, fire prevention is taken extremely seriously and is an integral part of the project activities. The project team runs a highly sophisticated fire management strategy, which includes 500+ trained community fire fighters; regular patrols; drone observation; and the use of latest satellite monitoring and alert technology, including NASA FIRMS. The project has also established natural fire-break buffer plantations that use local fire-resistant species to stop fires spreading, particularly in high-risk areas.

An important additional aspect of the strategy also involves working with communities and local government to run fire awareness and prevention programs, along with facilitating preparedness for school children and young people living within and around the project zone. The program has provided fire prevention and avoidance information but also information on mitigating the health risks of exposure to haze.

# Beyond the Project Area and Working with Local Communities



**Katingan Mentaya Project is located in Katingan district and Kotawaringin Timur district, in Central Kalimantan. The forest sits between two rivers, the Katingan and the Mentaya.**

The project consists of two designated spaces: the project area and the project zone.

Project area is the space set out by the ecosystem restoration permit, which covers 149,800 hectares, with a circumference of approximately 254.12 km. The project area is the uninhabited forest landscape and constitutes the area where the carbon content, or the VERs, are measured.

Meanwhile, project zone covers a wider space of 157.875 ha and is home to 38,801 people, across 34 villages. The project zone extends across the Mentaya watershed to the west and Katingan watershed to the east and covers boundaries in the north and south of project area.

The villages are part of the regency administration of Katingan and Kotawaringin Timur districts. Livelihoods in this area are reliant on the land and rivers – consisting of small-scale agriculture and traditional fisheries. Rice,

rubber, coconut, rattan, fruit, non-timber forest products - gemor (*Nothaphoebe coriacea* Kosterm), jelutung (*Dyera poluphylla*), honey, and medicinal plants - and fresh water fish are the typical commodities produced in the project zone.

Engagement with these communities has been at the forefront of project since its implementation. This has included open and engaged consultation during the designing of the project and its activities. Strenuous efforts have been made to ensure that adequate, understandable and accurate information is provided, and concerns and grievances are heard and addressed.

The project is now working in partnership with the 34 villages to build capacity in the community decision-making and identify sustainable initiatives for co-development to improve and increase local economic opportunities.

Part of the rationale for this, is that by helping to spread a culture of sustainable innovation, there is further support and engagement with forest protection, conservation of wildlife and the enhancement of environmental services, such as clean water, air and healthy soil.

## Ethnic Diversity and Complex Social Tapestry

The ethnic makeup is as diverse as the natural ecosystem. The majority of communities surrounding the KMP area are of Dayak descent, the local population now includes Banjar, Javanese, Madurese people who arrived as part of immigrant program under Suharto era (Indonesia 2<sup>nd</sup> President).

Generally, the majority of people are farmers who make a living from small-scale farming, rice cultivation, traditional fisheries, fruit gardens, non-timber forest products (eg gemor, jelutong, honey and medicinal plants), and agroforestry (cash crops, rubber, coconut and rattan).





# Community-Based Action

From its inception, the Katingan Mentaya Project has been developed on the firm understanding that for conservation and natural regeneration to be effective and long-lasting, it must be inclusive of and have direct involvement with those communities living around the project area.

The rationale for this is three-fold:

- **First**, through community engagement, the project is able to generate support and interest in the project activities and work to embed sustainability within the local economy, through its programs of community development.
- **Second**, by ensuring the communities are able to undertake and manage project activities themselves the project is enabling the work to be sustained long into the future.
- **Third**, the project itself is designed to showcase the benefits of community-focused conservation and sustainable land-use. By setting an example of how local communities can grow and thrive while working to protect and enhance the natural environment, the practices and learning can be adopted by other initiatives across a far wider region.

The Katingan Mentaya Project is designed to improve the quality of life for the local communities living around the project zone.

Key to this is the development of sustainable livelihood opportunities such as rattan and bamboo production, tree nurseries and biodegradable sapling fibre bag businesses, coconut sugar product manufacturing, along with sustainable agriculture and livestock rearing.

The project also works to improve community wellbeing, which includes helping towards women empowerment, supporting local health care and educational facilities, the development fresh water supply and sanitation as well as forest management, notable community fire management planning.



# Activities in Katingan Mentaya Project

## Case Study: Katingan Mentaya Project, a Year of Activities \*

\*(Latest third-party verified monitoring period: 2018-2019)

### 1. Forest restoration and peat rewetting

Natural regeneration is an important part of ecosystem resilience, but in areas where forest degradation has occurred or where peat has been allowed to drain, intervention is necessary. Over the year period, 233 men and women from six villages were involved in restoration activities, which include providing seeds and biodegradable material polybag; maintaining seeds facility; planting seeds and caring for seeds and managing weed control; as well as building dams to enable peat rewetting.

### 2. Prevention and Fire Fighting

The project team has a highly sophisticated program for ensuring fire does not cause damage within the project zone, but fires are a frequent threat across the broader region. Facilitated by the project, 1,571 villagers were involved in fire management and prevention activities. The teams worked to identify and minimize the cause of surface fires in high-risk areas, built water pools and deep wells for forest fire fighting, and led patrols, and prevention activities.

The project also runs a sophisticated community education and awareness program on fire prevention and fire safety. A total of 191 media items were produced and distributed to highlight the need to raise awareness on land and forest fires.

### 3. Community-based Business Development

Developing sustainable community livelihoods is an important task in itself, as it is a means of alleviating poverty and improving wellbeing. But by supporting the development of sustainable livelihoods, the project is also working to discourage activities that can cause harm to the natural environment and therefore support its core missions of protection and regeneration.

During year, the project has assisted 1,139 members of various communities who were involved in the development of sustainable businesses. Among the initiatives are the provision of microfinance loans to support local businesses, women's empowerment, youth job training and internships, sustainable agroforestry, renewable energy development and non-timber forest products, such as rattan, coconut, bamboo, honey, and medicinal plants.

### 4. Improvement of Community Health, Fresh Water Supply, Sanitation and Education

During the year, the project facilitated the building of latrines to prevent organic waste to be released into natural bodies of water. 118 families received solar panel installation, which helped power access to clean water. Approximately 360 people, including children, benefited from educational initiatives.



## 5. Community-based Business Development

Improving the community's livelihood is the main goal of the Katingan-Mentaya project. In this period, the project assisted 1,139 members of various communities who were involved in the development of sustainable businesses, ie; Coconut sugar, rice, sustainable bamboo development, poultry farming and ecotourism. There were also 1,186 members of various communities who were involved in the development of agroforestry and agro-ecology.

## 6. Micro Economy Development

Katingan-Mentaya project supports the development of small and medium scale businesses. During this monitoring period, there were five microeconomic institutions initiated among 201 new members. Therefore, from the moment the project began, there have been more than 1,149 members of local communities who benefited from the activities.

## 7. Improvement of Community Health, Fresh Water Supply, Sanitation and Education

There were 215 beneficiaries from an addition of grant allocation to build land latrines which prevent organic waste to be released into natural bodies of water. No less than 118 families received solar panel installation for clean water. Therefore, around 666 members of local communities were benefited by the improvement of health access and services; while some 360 people, including children, benefited from educational initiatives aimed toward better educational access (RMU, 2019).



# Conclusions: Lessons Learned from the Katingan Mentaya Project Community Engagement

1

## Conservation as a community-based activity

The drivers of deforestation and forest degradation are varied and complex. While the primary threat to forests and peatland areas across Indonesia come from large-scale plantation development, conservation initiatives, like the Katingan Mentaya Project, must identify and mitigate all risks to the natural environment. This includes small-scale agriculture, slash and burn clearance techniques, illegal logging, poaching and mining.

The Katingan Mentaya Project has demonstrated that the most effective way of preventing these destructive local activities and supporting regeneration is to build strong connections with communities; provide suitable and sustainable alternative livelihoods; and engage with local people through education, health care support and improvements to community wellbeing.

2

## Socioeconomic analysis and community mapping

To achieve the above, it is important to gain a detailed understanding of the socioeconomics of an area. Of course, a conservation project must analyse the specific drivers of deforestation, but it must also consider the social and cultural structures of the people living around a project zone. It must assess why the destructive activities are happening and consider carefully the viable alternatives that will help prevent them from happening.

3

## Strong community engagement and consultation

Engagement with community members requires the fair and open sharing of information and constructive consultation. The Katingan Mentaya Project has worked hard to understand the needs and concerns of the people living around the project zone and used this learning to shape its community strategy and ensure the long-term sustainability of the broader program.

4

## Developing sustainable local economic opportunities

Facilitating alternative livelihoods development in order to provide good incomes and are appealing and sustainable, supports the project in at least two ways. First, by steering a person away from a destructive activity, like illegal logging, and towards something sustainable, like coconut sugar production, there is a direct and immediate benefit for both the individual and the project's conservation missions. Second, it also helps establish a broader shift towards a truly sustainable local economy, which will benefit the community and the project over the long-term.

5

## Government engagement to align development programs

The Katingan Mentaya Project works alongside a range of social and economic development programs delivered at the national and regional levels of government. Alignment with public sector initiatives helps ensure budgets reach the people that need them most and are delivering programs that are genuinely making a difference on the ground.

## References

---

- Jpang, S. (2020). Laporan Kajian Lapangan Konflik Tenurial dan Identifikasi Kemitraan Konservasi di TN Bukit Baka Bukit Raya. Bogor: LATIN.
- Maryati. (2019, November 19). <https://www.antaranews.com/>. Retrieved Februari 2, 2020, from Orang-orang di Jantung Bisnis Restorasi Hutan: <https://www.antaranews.com/berita/1169863/orang-orang-di-jantung-bisnis-restorasi-hutan>
- Muhammad Ramdhan dan Zaenal Arifin Siregar. (2018). Pengelolaan Wilayah Gambut melalui Pemberdayaan Masyarakat Desa Pesisir di Kawasan Hidrologis Gambut Sungai Katingan dan Sungai Mentaya Provinsi Kalimantan Tengah. *Jurnal Segara* Vol 14, No 3.
- RMU. (2016). Project Design Document: KATINGAN PEATLAND RESTORATION AND CONSERVATION PROJECT. Katingan: PT. Rimba Makmur Utama (PT. RMU).
- RMU. (2019). Laporan Pemantauan dan Pelaksanaan Proyek Restorasi dan Konservasi Hutan Rawa Gambut Katingan-Mentaya. Jakarta: PT. RMU.
- Ramdhan, M. (2017). Analisis Persepsi Masyarakat Terhadap Kebijakan Restorasi Lahan Gambut di Kalimantan Tengah. *Jurnal Risalah Kebijakan Pertanian dan Lingkungan* Vol. 4 No. 1.
- Suharno. (2020). Kebijakan Publik Berbasis Politik Rekognisi. Surakarta: CV. Indotama Solo.
- Yogaswara, H. (2021). Meneruskan Hidup Setelah Kerusakan: Ingatan Kolektif dan Identitas Etnis Madura Pasca Kekerasan Antar Etnis di Kota Sampit, Kalimantan Tengah. Jakarta: Universitas Indonesia.



TROPICAL FOREST ALLIANCE

---

## The Tropical Forest Alliance

TFA is a global multistakeholder partnership platform initiated to support the implementation of private-sector commitments as well as to amplify demand-side engagement in major economies towards the transition to reduced deforestation commodity supply chains. Hosted by the World Economic Forum, TFA partners with 170+ organizations - companies, government entities, civil society, indigenous peoples, local communities and international agencies. TFA operates regional platforms in Latin America, West and Central Africa, China, and Southeast Asia.

---

## Contact

Contact the Tropical Forest Alliance Secretariat at [tfa-sea@ibcsd.or.id](mailto:tfa-sea@ibcsd.or.id)

© 2021 The Tropical Forest Alliance.  
All rights reserved.

---

## Acknowledgement

TFA Southeast Asia would like to express sincere gratitude to everyone involved in the ideation, development and finalization of this business case.

It is our hope that this study could inspire scaled sustainability commitment and further collective actions across all stakeholders in our journey towards deforestation free commodities supply chain, other forest-positive shared agendas, and eventually our pursuit towards net zero.

## Case Writer

**Syafrizaldi (Aal)**  
Independent consultant

**Dede Kunaifi**  
Independent consultant

## Editor

**Rizal Algamar**  
Southeast Asia Regional Director, TFA

**Erwin Widodo**  
Southeast Asia Head of Public Coordination, TFA

## Publication Coordinator

**Leonardo Fachry**  
Southeast Asia Operation Support, TFA

