



**PLANET
INDONESIA**

EVIDENCE IN PRACTICE

2021



WORKING PAPER
YAYASAN PLANET INDONESIA

Table Of Contents

Summary	3
The Model	4
In Practice - Mengkalang Jambu	5
Results	6
Reflections, Challenges, and Next Steps	10
About Us	11

Summary

ABOUT:



The evidence in practice paper provides a high-level overview of results from a community-led conservation approach facilitated by Yayasan Planet Indonesia (YPI) in the village of Mengkalang Jambu in West Kalimantan, Indonesia

RIGHTS:



In 2018 YPI supported the village to secure rights over 2,920 hectares ha of high-carbon mangrove forests and coastal resources through the Indonesian social forestry scheme

MANAGEMENT:



In 2020 MJ integrated their village forest (VF) into a larger coastal Locally Managed Marine Area and created a community based no take zone (CBNTZ) encompassing roughly 9% of the area the village manages

DEFORESTATION:



Results revealed a significant reduction in deforestation both before and after the start of the partnership between MJ and YPI as well as compared to control-treatment sites

FISHERIES MANAGEMENT:



Temporary mangrove reserves appeared to result in a short-term increase catch per unit effort in treatment sites vs control sites

PARTICIPATION AND ENGAGEMENT:



Participation and member activity levels, indicated by membership and group assets within the Cooperative, increased steadily over the life of the program

WELL-BEING:



Health partnerships increased the access to health provisions and voluntary family planning services throughout the project period

LIVELIHOODS



The Conservation Cooperative along with livelihood interventions resulted in improved income, access to capital, and diversification of livelihood and income generating opportunities for community members

CHALLENGES:



The largest challenge and barrier to progress in the Engkangin village has been related to spatial planning, land tenure, and village boundaries. There is a long history of conflict between community members and the Indonesian government who turned the customary forests in the area into a strict nature reserve in the 1980s

FUTURE STEPS:



Next steps will focus on improving year round fisheries monitoring, supporting farmers in peat swamps, and strengthening the Conservation Coop and Village Forest Management Unit as key governance institutions within the coastal area.



These working papers are intended to be simple yet insightful looks into the work of YPI and partners. Please do not hesitate to contact us at admin@planetindonesia.org should you have any questions, comments or inquiries about what is presented here

The Model

Planet Indonesia works alongside communities to conserve at-risk ecosystems. Our organization deploys a simple focused four-step model:



01

ACCESS AND RIGHTS

we support communities to secure tenure and gain access to resources – the lifeline for rural livelihoods.



02

EFFECTIVE PARTICIPATORY MANAGEMENT

we provide tools, technical assistance, and support to help communities manage resources in an effective way. We view resources as all areas of potential – from nature-based to human resources.



03

INCLUSIVE GOVERNANCE

we support the creation of local governance institutions that act as the decision-making body. Through these institutions a variety of services are co-designed and delivered to address socio-economic hardships communities face. These institutions, referred to as Conservation Cooperatives and Village Forest Management Unit (LPHD), are the cornerstone of Planet Indonesia's flagship approach.



04

REGENERATIVE FINANCE AND RESOURCES

we work alongside communities to provide access to financial resources, start-up capital, and regenerative supply chains to improve equitable and resilient livelihoods.

We use our award-winning community-led approach by establishing 'Conservation Cooperatives' (CC) to develop pathways to improve human well-being for vulnerable rural communities and drive the adoption of conservation action.

The CC approach is the central piece that delivers the model. It is the vehicle that helps (1) Ensure Access and Rights, support (2) Effective Participatory Management, facilitate (3) Inclusive Governance, and create access to (4) Financial resources. It links each of the steps, and provides us with the vehicle to co-design, co-deliver, co-evaluate, and co-improve activities with community partners.

A CC is a community owned, registered entity (e.g. organization) which engages in and supports regenerative activities. A CC is a vehicle for collaboration, reconciliation and participation of members amongst themselves, their wider community and the external networks present in their landscape. In its highest function, a CC operates as a living entity that is dynamic enough to account for the ever-changing circumstances that a community may experience. Therefore, a CC provides the mechanism in which communities can reposition themselves by engaging with external pressures, including the non-governmental sector

In Practice – Mengkalang Jambu

Mengkalang Jambu (MJ) is located in the district of Kubu Raya in West Kalimantan, Indonesia. YPI first partnered with the village in 2018. This coastal village exists in a mosaic of peat swamp and mangrove forests. Livelihoods in MJ are highly dependent on coastal marine resources as well as agriculture in peatlands. Income varies greatly between small-scale fishers and farmers to middle class plantation workers and government officials. MJ's remote location limit access to government services (e.g. health / education) as well as supply chains. YPI supported the community of MJ to secure tenure of 2,920 hectares of mangrove forest in 2018 through the Indonesian social forestry scheme.

YPI embraces Free, Prior, and Informed Consent (FPIC) and believes co-design of program strategies underpins success. A number of Focus Group Discussions (FGDs) were conducted in MJ prior to the initiation of the partnership. Problem trees and solution trees around social, economic and environmental issues were created by community members. Then, solution trees were used in program design to align with YPI's capacity and the needs on the ground. From there, YPI does not initiate activities without an official signed letter of request from the village leader who is tasked with representing their communities interest. Finally, before the partnership was initiated an official MOU was established outlining the rules of engagement. In this working paper we do not cover this process extensively but we emphasize that results created through this partnership hinge upon FPIC and co-design to ensure MJ and others have ownership over the design, implementation and evaluation process.



Results

We first conducted a deforestation analysis to compare deforestation rates in the project area compared to deforestation (% area) of all village forests on the island of Kalimantan (figure 1). We used the nusantara - atlas (<https://nusantara-atlas.org>) to analyze the shapefiles of all village forests (hutan desa) over a 20 year period in Kalimantan. We then compared deforestation rates in control areas to the MJ village forest. Results show a significant lower level of deforestation both before and after the project period and in comparing the project site to control areas (figure 1).

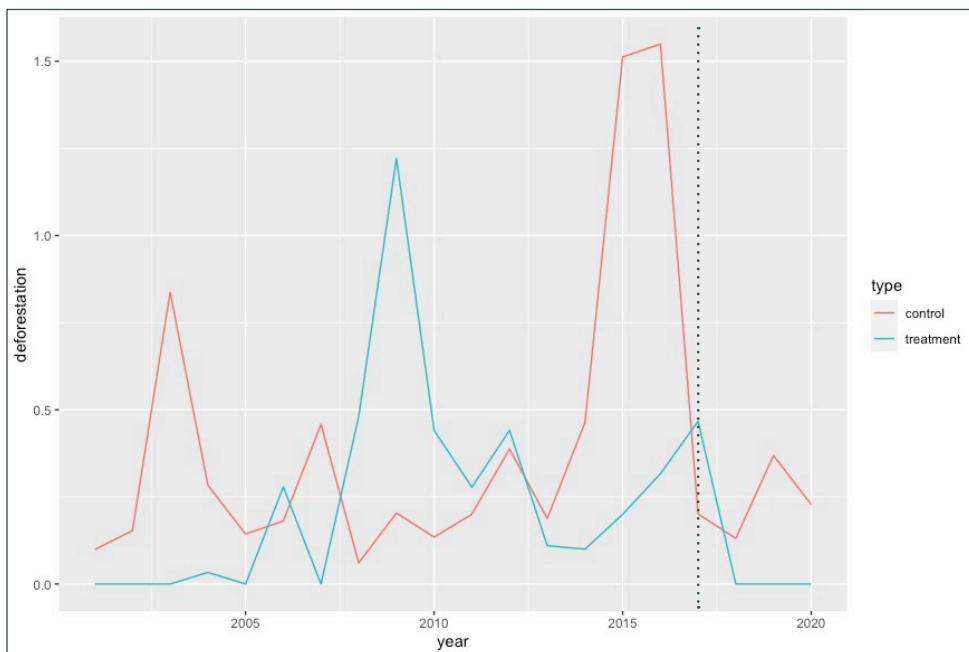


FIGURE 1:

Annual deforestation (% of area lost) in the project site compared to all other village forests (hutan desa) on the island of Kalimantan. The dotted line represents the project start date for which shortly after the community secured rights over the mangrove forest and the Locally Managed Marine Area (LMMA) was created.

TABLE 1:

Deforestation rates using an analysis of the project site and control sites. Analysis shows that deforestation was reduced post-intervention and was lower in treatment sites than control areas.

Period	Time-bound Variable	Avg Deforestation Rate (% of total forested area) (2021)
2000-2017	Treatment - before	0.187%
2018-2021	Treatment - after	0.0033%
2000-2017	Control - before	0.428%
2018-2021	Control - after	0.496%

After we supported MJ to secure rights over their mangrove forests in 2018, two years later MJ established a community-based no take zone (CBNTZ; Figure 2) encompassing 9% of the area they have secured rights over. This was signed into place within the larger LMMA between 6 coastal villages in 2020.

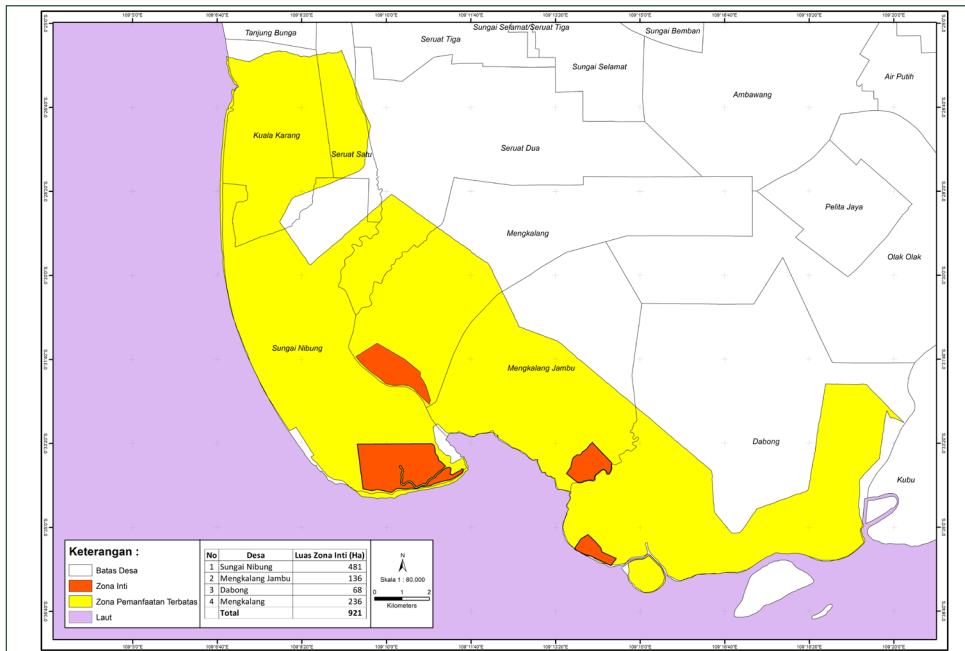


FIGURE 2:

Is a map of the entire Locally Managed Marine Area, red areas are community-based no take zones (CBNTZ) signed into law in 2020. MJ has created a CBNTZ of 236 hectares.

Throughout the project period YPI supported MJ to design and implement periodic closures. This method periodically closes small areas of the fishing ground, allowing for the population to return and temporarily improve fisher harvest rates. Data was collected at landing sites for 21 days before and after a closure. Results show the TMRs had short-term positive impacts (Figure 3) on catch per unit effort (CPUE). Limited data on the annual variation in the fishery mean we are not able to situate these results within broader fishery trends. Future work (see Reflections, Challenges, and Lessons Learned) will expand monitoring to better understand annual variation and the overall impact of interventions on mudcrab and other fisheries population dynamics.

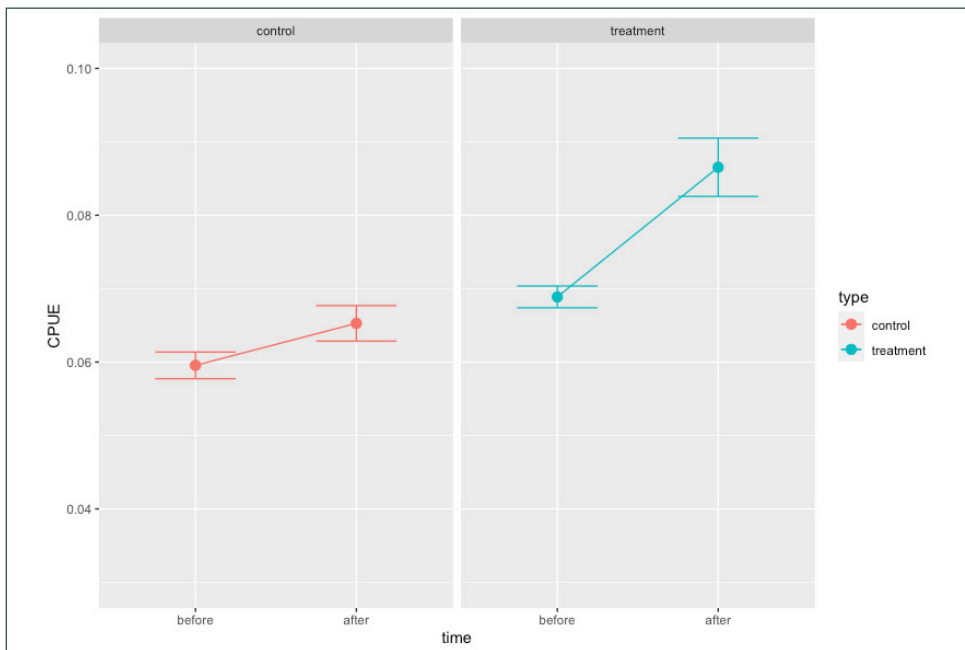


FIGURE 3:

Shows the results of catch per unit effort for mudcrabs before and after the implementation of periodic closures in treatment and control sites. This indicates a temporary increase in CPUE in treatment areas vs control areas.



167 FAMILIES

directly enrolled in Conservation Cooperative



45% WOMEN

represented in the membership base



3,254 KM

and 1,396 effective patrol hours by community-led marine patrols in 2020 and 2021



4 NEW ENTERPRISES

introduced to strengthen livelihoods



\$30,000 SAVED

in Cooperative assets for economic resilience



18-82 HOUSEHOLDS

a month receive health consultations from health ambassadors and government health workers

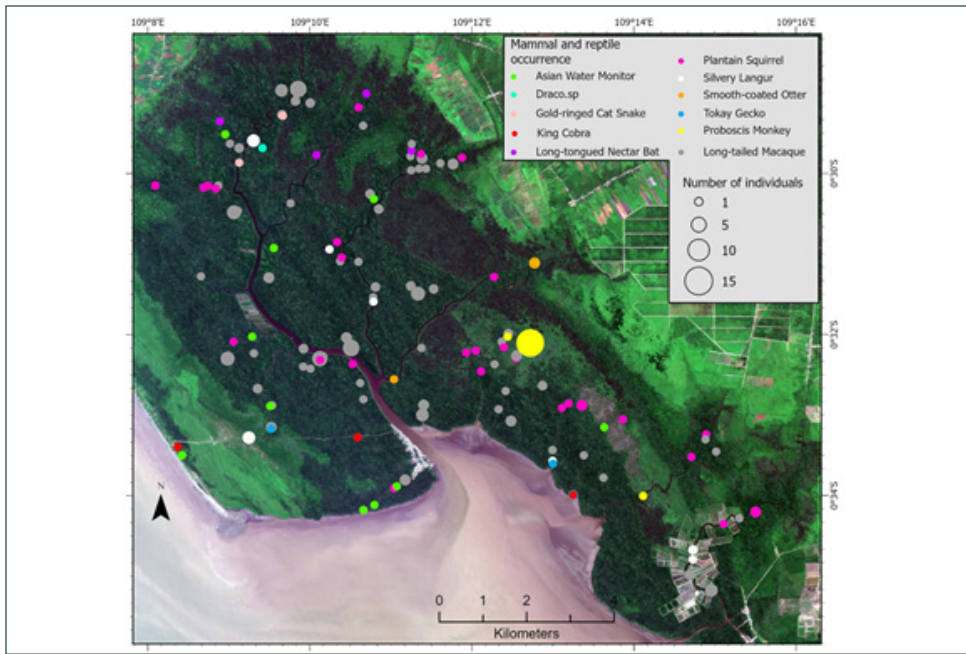


FIGURE 4:

Shows results of transect surveys throughout the LMMA. The endemic and critically endangered Proboscis monkey (yellow dot) has been recorded more than 50 times in the village forest of MJ. Recordings have ranged from single sightings to family groups of more than 15 individuals. Reflections, Challenges, and Next Steps



Reflections, Challenges, and Next Steps

MANAGEMENT AND GOVERNANCE



While progress was made towards participatory management through a number of tools (e.g. periodic closures, Village Forest Management Unit (VFMU) establishment, annual work plan development) understanding and accelerating governance has been more challenging. While both the CC and VFMU have been established and play an important role in the wider social-ecological management of the coastal area, an essential next step is strengthening governance frameworks and developing an understanding of what governance mechanisms are working vs those that are not. Next steps will focus more on anchoring management practices in governance frameworks within the coastal area.

EXPANDING FISHERIES MONITORING



Previous monitoring has focused on the before-after-control-impact of temporary mangrove reserves. We have also yet to monitor species besides mangrove mudcrabs. This has led to a lack of understanding of the intervention on Catch Per Unit Effort outside of closure times and also the potential impact of periodic closures on other species. Therefore, at this time we can only demonstrate that periodic closures have had a short-term positive impact on CPUE but cannot yet demonstrate its role on mudcrab population dynamics or long term impacts on fisher livelihoods and larger-scale population dynamics. In addition, long-term expanded monitoring will help community members understand the impacts and implications of creating CBNTZs.

AGRICULTURE NEEDS



MJ village has a considerable population (~40%) that draws their primary source of income from small-scale agriculture. Our work in this coastal area to date has been centered around fisheries and coastal resources management, securing rights and establishing West Kalimantan's first LMMA. Future work needs to draw on our experiences from our terrestrial sites to engage farmers in MJ who are dependent on peatlands for crop yields and income.

PAYMENT FOR ECOSYSTEM SERVICES



PES is growing in popularity and potential opportunities exist to secure long-term financing for MJ. Currently, YPI is supporting MJ to access financing through the Lestari Capital initiative which offers a per hectare price for 25 years. This PES scheme hinges on deforestation commitments as an indicator of success, however financing can be used to support a variety of social, economic, and environmental activities.



**PLANET
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About Us

Planet Indonesia is an award-winning international non-profit that conserves at-risk ecosystems through village-led partnerships. We utilize a right-based approach to engage locally-led solutions and unlock the potential for Indigenous and rural communities to restore and retain balance within human-nature interdependence. Our organization's evidence-based model is driven by listening, responding, and adapting to the opportunities and challenges faced by communities in Indonesia. From there, our on-site interventions are co-designed through community partnerships and built upon the values, needs, and aspirations of communities that partner with us to address issues at the social-ecological nexus. We recognize the need for far-sighted solutions that transcends the boundaries of mainstream initiatives that sideline communities in environmental conservation - acknowledging the future requires a shift towards inclusive systems-based approaches.

We do not limit our work to one ecosystem type, land-use issue, or social group. Rather, we focus on adapting our organization's Conservation Cooperative Approach to create opportunities and address the needs within the landscapes of the communities that partner with us. We remain agile and adaptive through addressing the underlying drivers and barriers that create imbalance between people and nature. We address barriers to community engagement in conservation ranging from lack of access to healthcare and limited livelihood opportunities to inequitable governance and capacity issues around resource management.

Our organization believes it is imperative to shift conservation from a symptomatic reactive model towards an inclusive proactive approach that positions communities behind the wheel in determining their social-ecological trajectory