



Fishing for Climate Resilience

Executive Summary

Background

Small-scale Fisheries (SSF) are important to rural coastal communities as many of these communities lack employment diversity—most of the workforce is involved in fishing or post-fishing employment. For example, in Indonesia, despite experiencing negative impacts due to Covid-19 pandemic, the majority (75%) of fishers continued to rely on fishing for their livelihood due to the lack of alternative employment opportunities within their community.

Since 1973, Rare applies social marketing and behavioural adaptation strategies to strengthen environmental stewardship. The global [Fish Forever](#) program, combines this with climate and fisheries science, aiming to reverse further decline and collapse of fish stocks around the globe. Launched in 2018 with support from Germany's International Climate Initiative (IKI), Rare's Fishing for Climate Resilience was designed to help small-scale fishing communities adapt to climate change through Ecosystem-based Adaptation (EbA) approaches. Particularly, since 2018, "Fishing for Climate Resilience" implements and mainstreams Ecosystem-based Adaptation (EbA) measures systematically in community-led fisheries management in 36 vulnerable fisheries-dependent local government units in the Philippines, Indonesia, Palau, Federate States of Micronesia, and the Marshall Islands.

What is EbA?

IUCN defines Ecosystem-based adaptation (EbA) as a nature-based solution that harnesses biodiversity and ecosystem services to reduce vulnerability and build resilience to climate change.

It is any initiative that reduces human vulnerabilities and enhances adaptive capacity in the context of existing or projected climate variability and changes through sustainable management, conservation, and restoration of ecosystems.



Using fisheries and climate change information, Rare’s community engagement and behavior adoption strategies help build cohesion and cooperation within the community, strengthening their ability to work closely and efficiently in finding solutions to the risks they are exposed to because of climate change. **This social adaptive capacity is rather unique** and a fundamental element of the Project Theory of Change (Figure 1).



Figure 1 Theory of Change

In this project Rare and partners considered the relevance and impacts of integrating the following two EbA measures with community-based fisheries management, particularly through 1) **management of marine reserves** and 2) **creation of managed access areas**, SSF livelihoods and ecosystem services are sustained, which enables communities to increase their adaptive capacity.

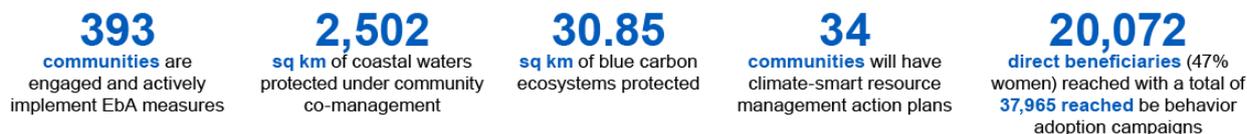
Rare and its partners explore social, ecological, and economical results of EbA measures to further integrate climate change in their programs and prepare relevant policy advocacy for increased resilience of vulnerable small-scale fisheries communities and to support partner countries in implementing and enhancing their Nationally Determined Contributions (NDC) to meeting the goals of the Paris Agreement as well as their National Adaptation Plans (NAP).

This executive summary provides preliminary results and key take-aways.

Project Results and Impact

Rare and partners have succeeded in enhancing the adaptive capacity in important areas and SSF coastal communities as the project produced the multiple ecological and sociological results.

Preliminary Results:



For lasting impact, important local and international policy results have also been achieved:

- The governor of Southeast Sulawesi, Indonesia and five municipalities in the Philippines approved climate resilient managed access and reserve (MA+R) areas benefiting nearly **23,000 fishers** across **117 coastal communities**. Combined, these policy milestones give small-scale fishers the legal basis to access and co-manage **2,447.5 sq km of fishing grounds** and **54.6 sq km of reserves**. For example, in Sulawesi this is supported by a decree outlining the guidelines for community-based enforcement within the MA+R areas to ensure rightful use of authority and sustainable fishery management.
- The MA+R interventions are included in **17 local government annual investment plans**, and about **USD \$3M were allocated** for MA+R establishment, support for community enforcers, mangrove replanting, and ecological waste management, among other activities. For example, the Indonesian Buton District's Village Empowerment Agency and Legal Division issued a regulation requiring local leaders to prioritize marine and fishery-related activities in their village funds. This policy enabled **15 villages** to allocate **\$69k for marine protection activities**.
- In Palau, Rare is working with state officials to produce the MA+R design and management plan for the Ngardok Nature Reserve. With the Bureau of Marine Resources, Rare is developing the **national fisher registration system** that will gather relevant information on fishers, gear, and licensing. This information will help fishery managers protect the ocean from destructive fishing practices thus increasing its resilience to other threats including climate impacts.

During the remaining project time Rare and partners look forward to:

- Use preliminary results for partner and stakeholder consultation
- Further analyze the increasingly complete household survey data-sets looking for particular changes in climate change vulnerability that relate to the project interventions, including for Palau, FSM and Marshall Islands
- Do a deep-dive into the social metrics to see how COVID affected Rare's mode of implementation for behavior adoption campaigns
- Explore how the resilience and climate adaptation benefits from this project contribute to emerging blue carbon efforts as well as how to better integrate climate change into all of Rare's programs

- Advocate for local, regional, and national policy that mainstreams EbA
- Support capacity-building for an adequate monitoring and evaluation framework which informs local, regional, and national interventions to increase resilience of SSF to climate change

Preliminary key-takeaways

Most progress towards sustainable fisheries came from the bottom-up—from provincial and community level fishers, women, and other groups. This confirms the importance of community-led and behaviour-centred approaches for growing resilience of SSF.

Access to financial services for micro-enterprises that adopt EbA measures opens opportunities to grow sustainably and retain economic resilience. For example, in the aftermath of Typhoon Odette/Rai, pooled social funds from saving clubs created in the project boosted recovery efforts. Going forward, several microentrepreneurs trained in the Philippines and Indonesia on EbA and other elements of green recovery are formally registered, obliging them to follow environmental policies upholding blue finance sustainability principles. Having linked some to banks and government agencies, access to financial services and insurance will help increase their (and their fishers) resilience to future external (climate) shocks.

Gender transformative interventions through improved financial literacy may enhance participation of women in decision-making and increased agency within households and community. Currently, however, local gender and cultural norms dictate the level and type of women involvement as male involvement within a fishery is more common in rural villages.

Merging traditional and customary management practices into formal regulatory frameworks resulting in exclusive access rights may enhance local application of EbA measures. Protecting these ‘exclusive rights’ areas through policy would provide economic stability for SSF.

Conclusion & Policy recommendations

Ecosystem-Based-Adaptation measures are proving their value for Small-Scale Fisheries in vulnerable coastal communities. Rare and partners identified the following drivers of success:

- Leveraging community groups to monitor fishery stock and catch data provided more consistent information on the state of fisheries, which is important for decisions on fish harvest strategies and related SSF resilience.
- Use of managed access reserves and marine protected areas encouraged sustainable fishing practices, linking eco-system management and related habitat conservation to community-led increased SFF resilience.
- Granting exclusive access rights was key in preventing further damage to the coastal fisheries and mangroves that these communities rely on for their livelihood. This indicates how ‘ownership’ motivates and stimulates stewardship.

Increased follow-up would make interventions more appealing to SSF communities and may elicit sustained changes. Continued collaboration between SSF and provincial and national governments is key to enacting policies that can impact the sustainability and resilience of these fisheries.