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Lessons from the Micronesia Challenge 2030: *Using a science-to-management approach for effective protected areas* April 2024



Community Conservation Officers in the Pakin MPA conducting monitoring using the Coral Watch Health Chart. Photo Credit: Jerry Route; Conservation Society of Pohnpei.

Strengthening and Enabling the Micronesia Challenge 2030 - GEF Project ID: 10740

Abstract | The Micronesia Challenge 2030 is a multi-jurisdictional commitment towards effective management of marine and terrestrial resources throughout Micronesia. A key challenge for the commitment has been meeting the ongoing need for up-to-date protected area (PA) data at the appropriate scale and level of detail, as existing mechanisms limit data availability for local PA management and multi-scale decision-making. In order to address this need, the Micronesia PA registry is being established. Taking a science-to-management approach which is data-driven and emphasizes usability, the project has already seen significant wins in providing reliable, updated access to key PA information, improving conservation efforts and the ability for partners across Micronesia to meet the goals of Micronesia Challenge 2030.

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GEF IW PROJECT DESCRIPTION

The Micronesia Challenge 2030 (MC 2030) is a commitment by Palau, Guam, the Northern Mariana Islands, the Federated States of Micronesia (FSM), and the Republic of the Marshall Islands (RMI) to effectively manage 50% marine and 30% terrestrial resources by 2030. Building upon the Micronesia Challenge 2020, the goal also includes a larger voice for fisheries management, reducing invasive species, restoring habitats, increasing livelihood opportunities, and reducing risks to communities from climate impacts in Micronesia.

The project *Strengthening and Enabling the Micronesia Challenge 2030* builds on MC 2030 conservation, community benefit, and process targets, aiming to enhance national and regional marine resource management through three components:

Component 1: Supporting RMI, FSM, and Palau as they develop national policies, plans, and tools to support national integrated management of marine resources

Component 2: Strengthening capacities, communication, and planning to ensure regional coordination of the MC 2030

Component 3: Focusing on monitoring, evaluation, knowledge management, and communication of knowledge products generated through the project

This Experience Note outlines the learnings from the creation and build-out of an integrative online protected area registry for Micronesia. Success stories from the first stage of the project and the establishment of the marine monitoring online database are also described—shedding light on the importance of a coordinated, cooperative data management effort.

Photo Credit: Eric Hartge

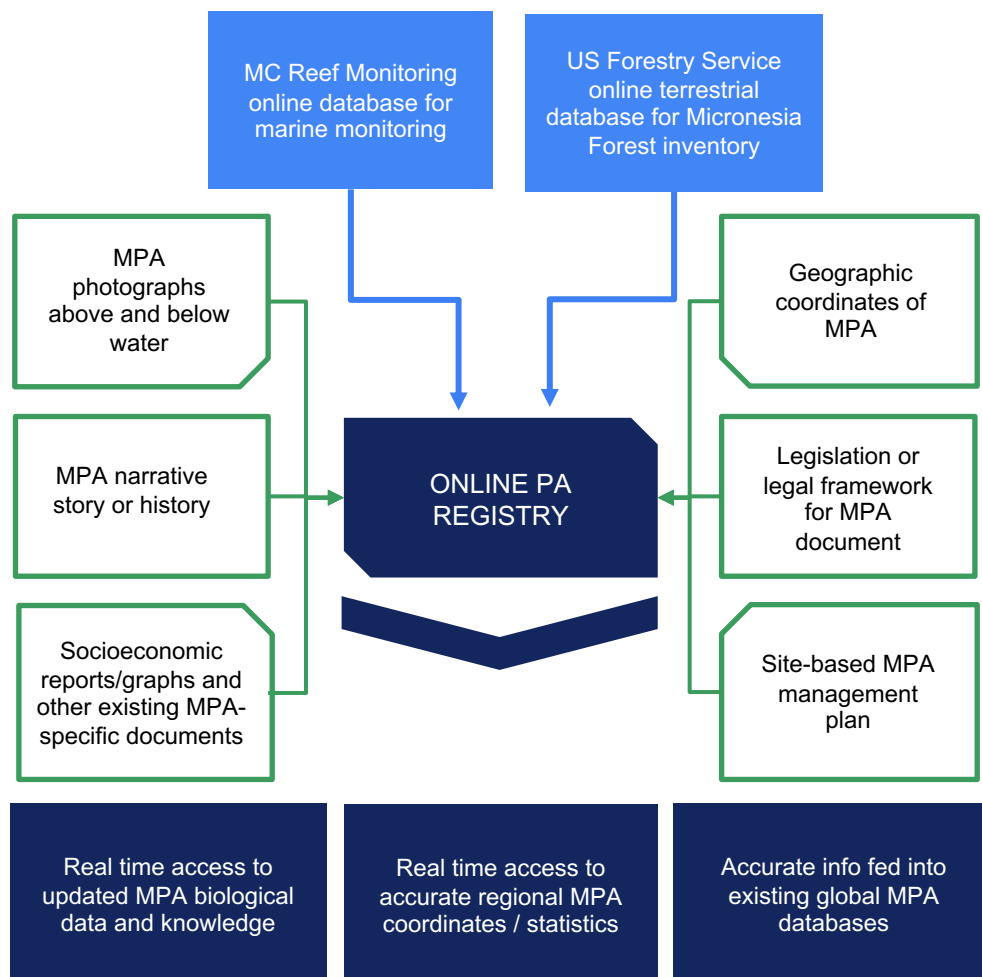
THE EXPERIENCE

The Issue

There is an ongoing and pressing need for the Micronesia jurisdictions to have readily available access to regional PA locations, management documents, biological data, and other relevant information. While global PA registries exist, they lack the level of detail and specificity that is needed for countries in Micronesia to effectively monitor and manage their PAs.

Addressing the Issue

The PA registry under development is data-driven, linked with long-term monitoring efforts, and emphasizes utility. This registry will host accurate spatial and biological data to evaluate PAs across Micronesia. The platform is local in nature and provides specific documentation and data that are not available from global PA websites. Immediate access to updated biological surveys and management plans will facilitate more efficient and effective feedback with the stakeholders of each PA, leading to sustained success.

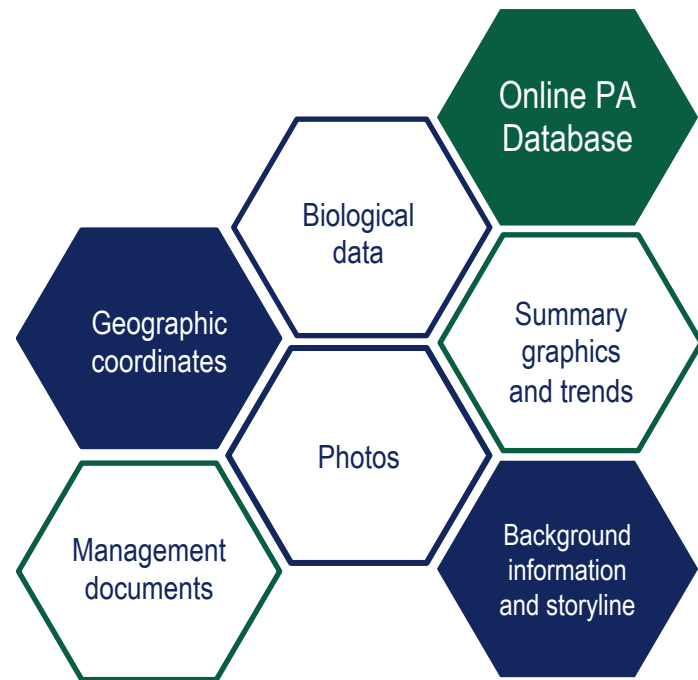
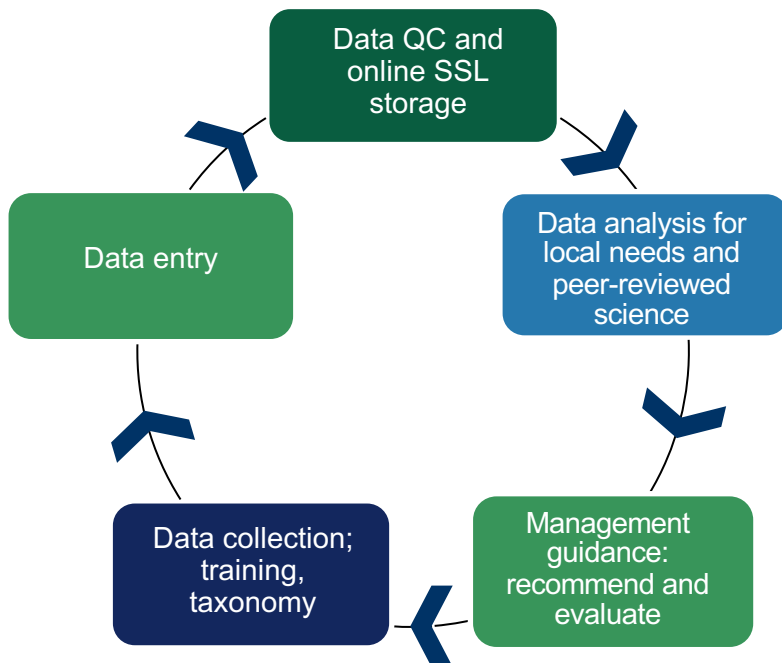


RESULTS AND LEARNING

The PA registry, though in its infancy, is already proving useful to monitoring and evaluation of PAs. Through the central compilation of real-time data, it has been possible to determine what percentage of marine protected areas (MPAs) in Micronesia are effective. An impressive 68% of MPAs across Micronesia have greater fish biomass compared to reference sites. The extent of the difference in biomass will depend on sustaining and improving community support and enforcement.

Most PA registries are not equipped to evaluate the effectiveness of PAs, which has been a key strength of the registry. The PA registry will be utilized by actors throughout the region:

- Providing hundreds of local practitioners access to data, spatial statistics, and management documents
- Detailing and storing data on approximately 15 Marine PAs and 21 Terrestrial PAs in the first project phase
- Ultimately including a target of over 200 protected areas throughout Micronesia



REPLICATION

The use of a central, contextualized, and accessible PA database has resulted in greater ease of use, reliability, and depth of information across Micronesia. A highlight of the database has been the inclusion of management documents and policy processes alongside biophysical data—the social and ecological aspects of each MPA are equally important to consider in decision-making.

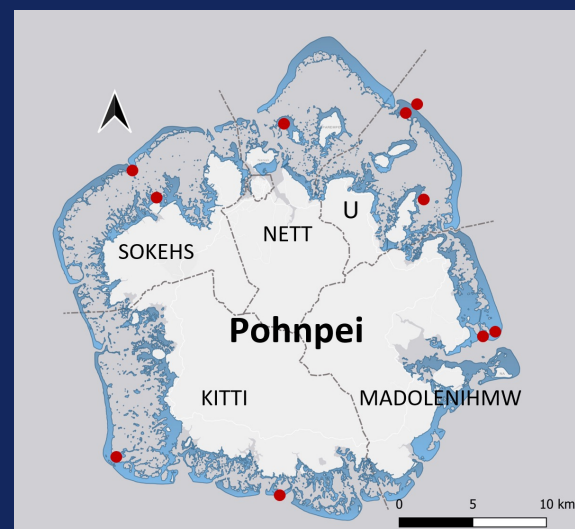
As emphasized by the project design, MPAs are a village-based resource, and “It’s the people that live there that are going to own and protect it,” as project lead Peter Houk pointed out. Until there was a platform in which data were available to and being used by local communities, MPAs saw limited success. Downscaling, community involvement, and learning exchanges have been key to refining the database.

Science-to-management case study | Collaborative platforms strengthen collaboration

Communication and collaboration across sites in Micronesia are crucial to meeting cross-jurisdictional conservation targets, and the PA registry is a key tool for this process to run smoothly. In absence of a centralized database, communities continually report that the data available were not useful to them. However, with the database in place, communities and MPA managers will have access to the relevant information at the proper scale and depth of detail, including MPA legislation, wider fisheries management and policy documents, community data, and research findings. This information is especially helpful at events such as the cross-site visits hosted annually in Pohnpei through the Locally Managed Marine Area network.

With the PA registry, all partners come with a common understanding of the context and challenges that each location may face and are able to maintain connections and momentum on work even after the exchanges are over.

“Accessing information is key. When our local coral reef monitoring team translates and presents their monitoring results, communities are motivated to enhance their efforts knowing there are positive impacts as well as areas required for improvement.” – Eugene Joseph, Conservation Society of Pohnpei



Map of Pohnpei, with marine sanctuaries marked in red.

“As environmental managers in Micronesia, we have been able to work together on various projects and programs with the limited tools that we have. As we continue to grow and work more collaboratively throughout the region, and internationally, we need better tools to support this expansion. With the PA registry in place, we can contribute our respective information and data onto one portal that can be shared throughout the region for a steady stream of information, supporting coordinated and efficient management.”

– Lincy Marino (*Micronesia Challenge Regional Coordinator*)

SIGNIFICANCE

The Micronesia PA registry highlights the importance and utility of having accessible and contextualized data available for effective PA management. Rather than relying on global registries for decision-making, which are often limited in their utility to local communities, the Micronesia registry has been designed to meet the needs of MC 2030 partners. By enabling collaborative upload and use of data, and linking all relevant documents to each MPA listed, decision-makers have all the information they need at their fingertips.

CONCLUSION

The development of a protected area registry specific to Micronesia enables collaborative, evidence-based, and effective management at an actionable scale. Created by and for practitioners in the marine conservation space, this science-to-management tool follows a central theme of encouraging community support through both contributing to and accessing the key data they need, enhancing partners' ability to meet the ambitious targets of Micronesia Challenge 2030.

KEYWORDS

Micronesia; resource management; protected area; monitoring; database

PHOTOS

Page 1: Jerry Route
Page 2: Eric Hartge
Page 3: QGIS data layers from ESRI & IslandAtlas.org
Page 4: Peter Houk

REFERENCES

Houk, Peter, et al. "Climate change disturbances contextualize the outcomes of coral-reef fisheries management across Micronesia." *PLOS Climate* 1.7 (2022): e0000040.

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For more information about the Micronesia Challenge, please visit:

<https://www.mc2030.org/>



Photo Courtesy of Peter Houk

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