

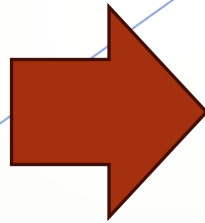
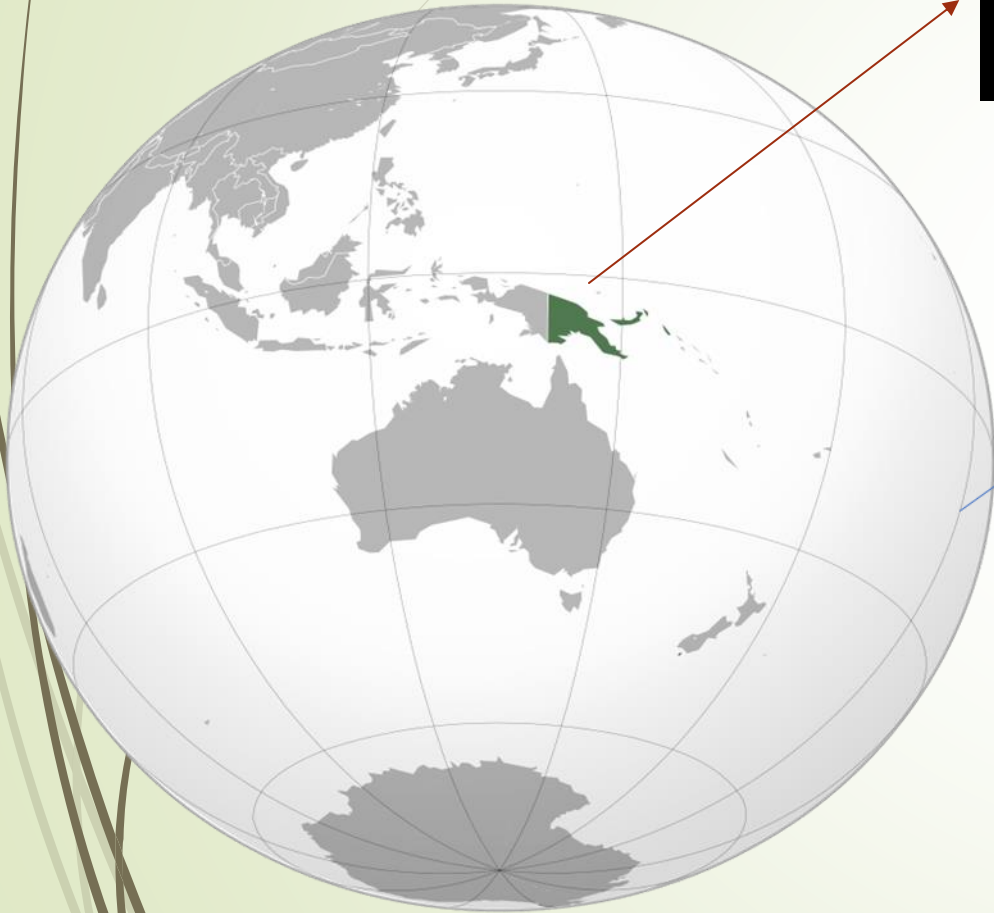
Integrating Ocean Mapping in Sustainable Marine Tourism in Ialakua Village, East New Britain Province.

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Papua New Guinea



East New Britain Province

- East New Britain operates on a **matrilineal system**, where land is passed down through female lineage, and the people have a custodial approach to managing resources. Traditional knowledge about the environment, fishing practices, and seasonal changes has been preserved over generations, reflecting a strong cultural connection to the land and sea.
- The province's coastal areas are characterized by vibrant coral reefs, diverse marine species, and scenic landscapes, making it a natural attraction for ecotourism and marine tourism.
- The natural beauty and biodiversity of the area create a foundation for sustainable tourism that showcases the region's ecological richness.

Ialakua Village, East New Britain

- A small village, just 10 minutes drive along the coast from the main Kokopo Town
- Consist of 5 sections within the village
- The beach front is a turtle nesting ground for Hawksbill, Green and Olive Ridley turtles
- Feeding grounds for Dugong and Dolphins
- Beautiful reefs
- A lot of old ship wrecks from WWII
- Underwater volcano
- Local Fisherman using traditional fish traps
- Locals depend on the sea to sustain their livelihoods





PROBLEM

- We have lost a lot of local knowledge, local environmental indicators of different seasons and tides.
- Most of the once vibrant and colorful reefs have died
- The beachfront looks very unhealthy and contaminated with the people living on the beachfront.
- No sight of dugongs eating seagrass
- Rarely turtles come and nest
- With the climate change impacts, the sea level has gone inland.
- Local fisherman travel far just to catch fish to sell and feed their families.



ENB Sea Keepers



Impacts

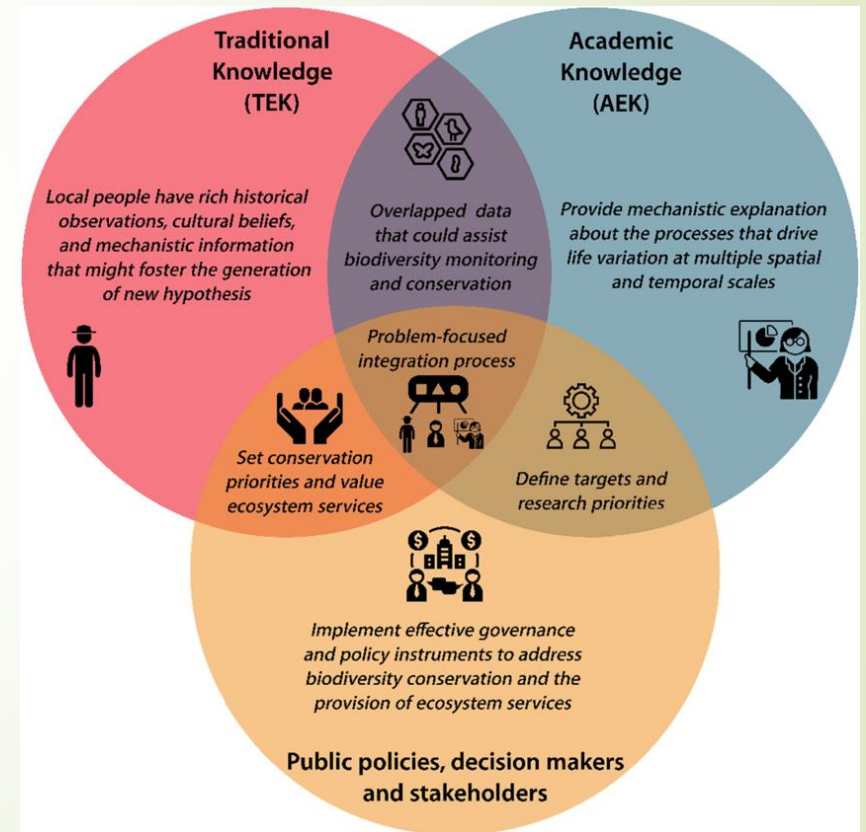
- Using the power of community leaders, they moved all the clans living on the beach front back to their original lands.
- Established a Community Based Organization within Ialakua Village to drive marine conservation work in the community.
- Established one Locally Marine Managed Areas in Ialakua Village. Two other villagers; Raluana and Barovon still in progress (Community Managed)
- Implemented 7 coral nurseries and rebuilt and restored the degraded reef at the beach front.
- The olive ridley species of marine turtle has started nesting on our beach
- Trained over 100 + youths in coral restoration, turtle conservation techniques and community engagement.

Impacts

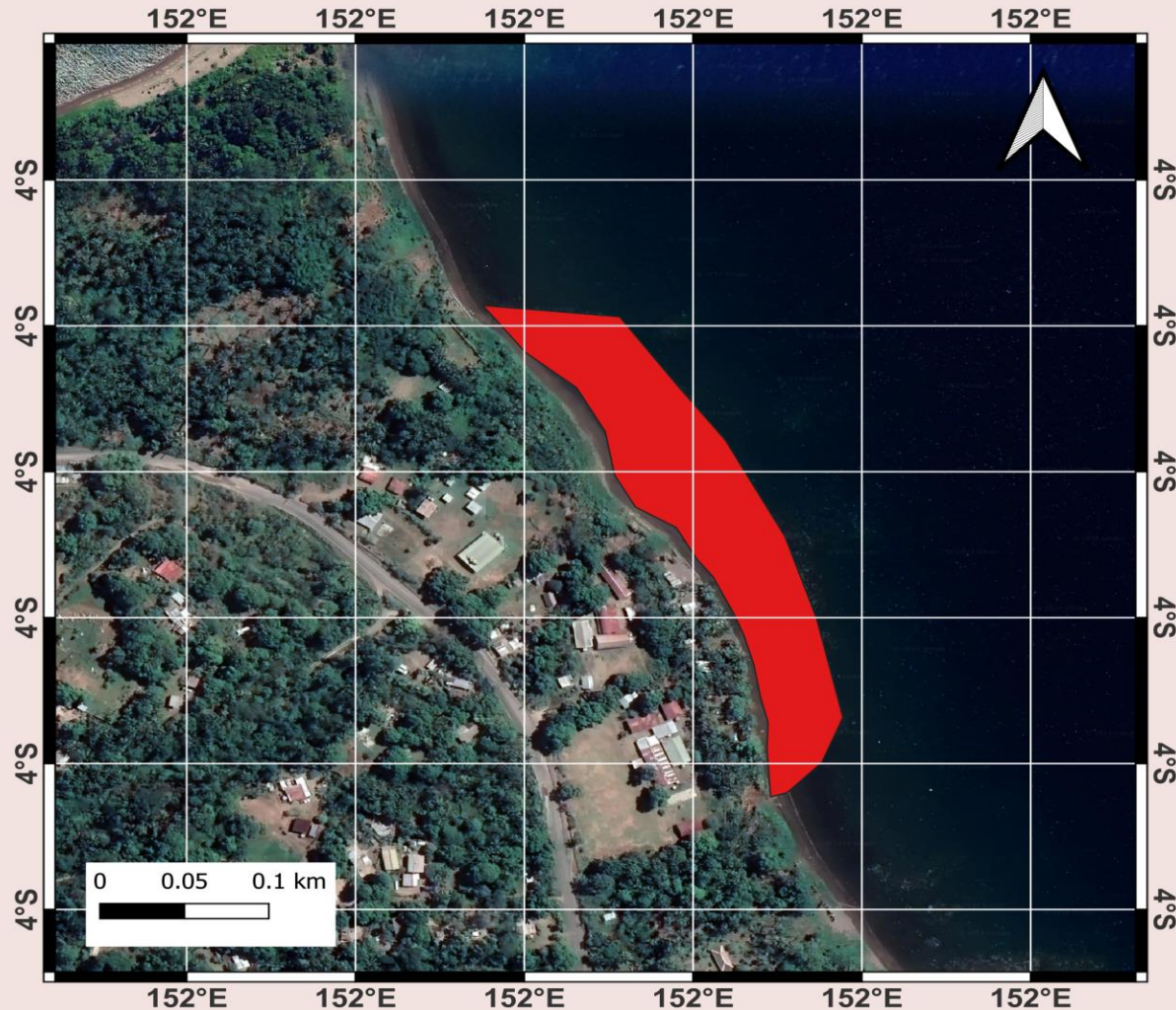


Community-Based Approach to Ocean Mapping in Sustainable Marine Tourism

- This approach not only leverages scientific data but also includes the invaluable insights of local communities, whose traditional knowledge and connection to their environment bring added depth to mapping efforts.
- For communities that have already established conservation efforts in their villages. There is potential to tap into sustainable marine and ecotourism where the community can generate income while conserving their marine environment.



Using GIS to Map Ialakua Managed Marine Area



Ialakua Managed Marine Area

Legend
Ialakua Reef
area



- 1. Locally Managed Marine Areas (LMMAs):**
Use mapped data to establish protected areas, no-take zones, and eco-tourism spots that support both conservation and sustainable use.
- 2. Digital Zoning:**
Mapping enables precise zoning of community resources, allowing us to balance economic activities like fishing and tourism with ecosystem health.

What's the need to use Maps

- ▶ We know very little about the ocean floor beneath us. Much of our seafloor remains unmapped, leaving critical gaps in our understanding of marine ecosystems and the environmental changes affecting them.
- ▶ Mapping the seabed is essential for our communities to gain deeper insight into these underwater landscapes, enabling us to protect, manage, and sustainably benefit from our marine resources.
- ▶ As environmental indicators, such as fish populations and coral health are declining, ocean mapping becomes an indispensable tool for communities to track and address these changes.
- ▶ With accurate maps, we can identify vulnerable ecosystems, monitor shifts over time, and implement targeted conservation efforts.
- ▶ Even the local level government lacks skilled personnel in this space to better help communities to manage their marine resources.

Conclusion

- ▶ With the integration of ocean mapping and sustainable tourism practices, Lalakua has the potential to become a model for eco-friendly marine tourism.
- ▶ Incorporating ocean mapping into community-based resource management allows us to move from reactive to proactive conservation. This skill will enhance ENB Sea keepers work in conservation efforts and provide economic benefits to the community
- ▶ Ocean mapping isn't just about understanding the sea, it's about empowering communities to protect and manage their ocean wisely in a time of unprecedented environmental changes.