CIFOR World Agroforestry

SWAMP
Sustainable Wetlands Adaptation and Mitigation Program

bc deck Blue Carbon Transformative Partnership Platform

i-Mangrove

Indonesia's mangrove restoration hub

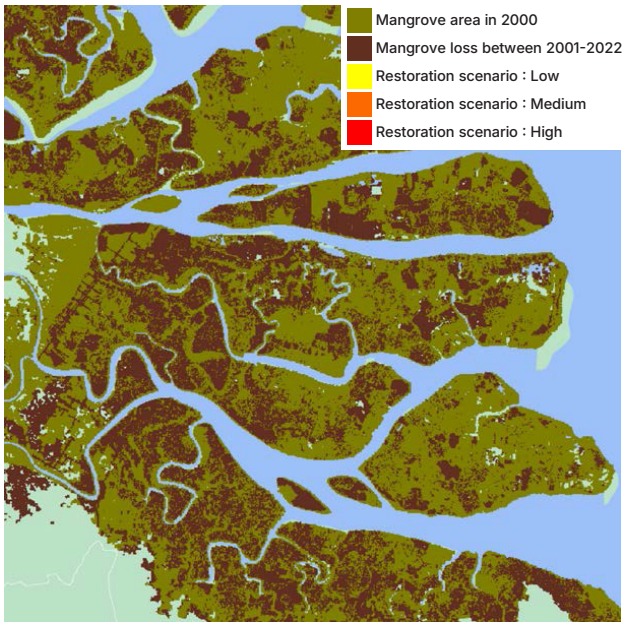
Why i-Mangrove

Mangrove conservation and restoration are increasingly proposed for global and national climate change mitigation strategies. However, a transparent measurement, reporting, and verification (MRV) system is still a challenge. Indonesia needs data on the distribution of mangrove restoration opportunities, as well as the ability to monitor previous restoration efforts.

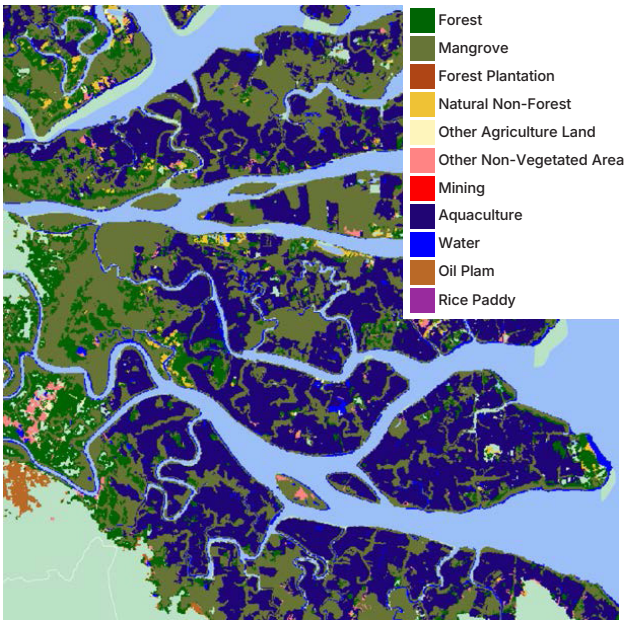
In response to these challenges, we have developed "i-Mangrove". This online platform compiles and presents spatial information on the distribution of mangrove loss, opportunities for their restoration, and data on coastal typology and land cover. It also showcases some previous and current restoration projects. Such a platform, regularly updated, responds to the continuous demand for mangrove restoration opportunities and the need for policymakers and project developers to monitor the success of the projects.

How it works

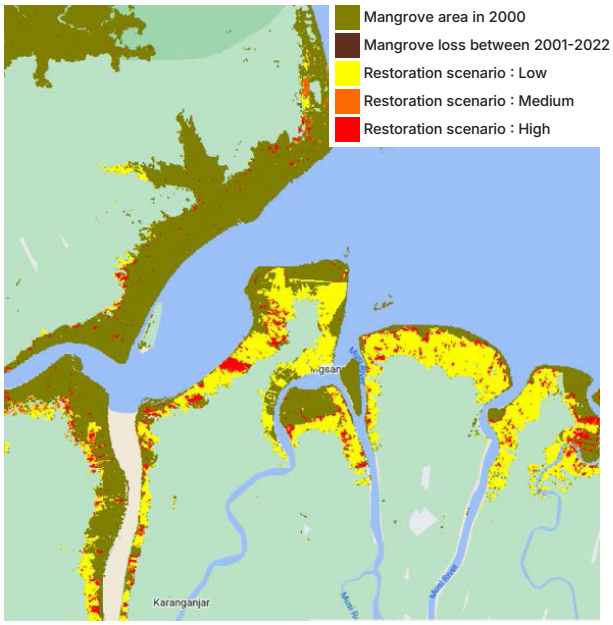
i-Mangrove provides an online interactive tool within the Google Earth Engine platform to access various datasets relevant to mangrove restoration and rehabilitation in Indonesia. In so doing, i-Mangrove enables users to create their project boundaries (e.g., square or rectangle polygons). They can also calculate the area of mangrove restoration potential and other available datasets through the main map user interface. In addition, the interface provides access links to the original dataset through Google Earth Engine. Through bar charts, i-Mangrove provides direct visualization of the area of various datasets. Finally, i-Mangrove enables users to view historical annual land cover changes on the lost mangrove area to monitor performance of their mangrove rehabilitation.



Data 1. Mangrove loss area



Data 2. Land cover replacing mangroves



Data 3. Mangrove restoration opportunities

Get started and explore

The online version of the i-Mangrove can be accessed at the following link: https://restoremangrove.users.earthengine.app/view/i-mangrove.

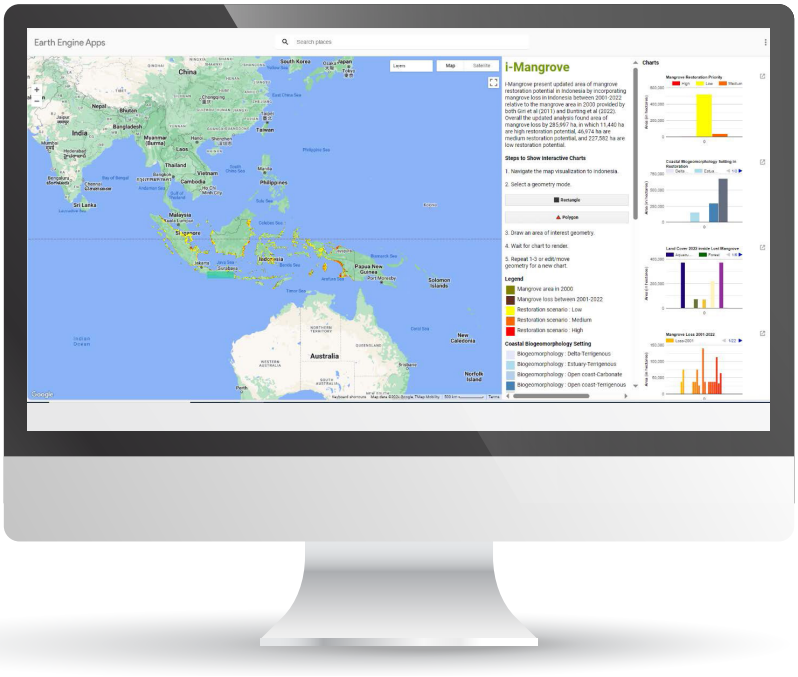


Figure 4. The user interface of i-Mangrove shows multiple layers of the dataset, including mangrove restoration priorities, coastal geomorphology setting, land cover change, and historical mangrove loss

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Partners

i-Mangrove is hosted on the Transformative Platform Blue Carbon Deck Website (TPP Blue Deck).

TPP Blue Deck brings together multiple initiatives around blue carbon to become the go-to source for researchers, civil society, and practitioners working in coastal communities.

Contact person

For more information about i-Mangrove and to discuss possible collaboration and contributions, please contact:

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CIFOR-ICRAF

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