

# Oceans for Prosperity

Oceans are central to Indonesia's prosperity through economic activities including capture fisheries and aquaculture, coastal tourism, and transportation.



Indonesia's blue economy, the largest in Southeast Asia, is valued at **US\$256 billion** annually or more than a quarter of GDP.<sup>1</sup>



Indonesia is the **second largest marine fisheries and seaweed producer globally**<sup>2</sup>. Fisheries and aquaculture contribute about **\$27 billion** to the national economy, provide over **7 million jobs**, and half of the protein in the Indonesian diet<sup>3</sup>.



Indonesia's oceans are a key asset for national tourism, worth around **US\$12 billion** in 2017 – the **fourth largest source of foreign exchange** – and provided **10.5 percent of employment**.<sup>4</sup>



**Micro, small, and medium enterprises (MSMEs) are the backbone of Indonesia's economy**, contributing slightly over **61%** to Indonesia's GDP and absorbing around **97%** of Indonesia's domestic employment,<sup>5</sup> with high prevalence in coastal areas.

**Healthy oceans regulate the climate**, act as a sink for greenhouse gases, provide oxygen and are home to ecosystems rich in biodiversity.



Indonesia's seagrasses and mangroves together **hold around 3.4 billion tonnes of carbon**, five times more per area than tropical land-based forests.<sup>6</sup>



Mangroves, coral reefs and seagrasses play a crucial role in the feeding and breeding cycles of many fish species important for Indonesia's commercial catch and food security. Among villages in South East Sulawesi, for example, **catches of seagrass-supported fish supply more than half of the region's daily protein intake**.<sup>7</sup>



Mangrove and seagrass ecosystems in Indonesia comprise **17 percent of the world's blue carbon reservoir**.

<sup>1</sup> OECD. (2021). "Sustainable Ocean Economy Country Diagnostic of Indonesia."

<sup>2</sup> FAO (2022) The State of World Fisheries and Aquaculture.

<sup>3</sup> World Bank (2021) Oceans for Prosperity: Reforms for a Blue Economy in Indonesia.

<sup>4</sup> Spalding, M. et al. (2017). "Mapping the global value and distribution of coral reef tourism."

<sup>5</sup> Ministry of MSMEs: <https://www2.bkpm.go.id/id/publikasi/detail/berita/upaya-pe-merintah-untuk-memajukan-umkm-indonesia-ar--text-Berdasarkan%20data%20Kementerian%20Operas%20dan%20Senilai%208.573%2C89%20triliun%20rupiah>.

<sup>6</sup> Alongi, D.M., D. Murdiyoso, J.W. Fourqurean, J.B. Kauffman, A. Hutahaesan, S. Crooks, C.E. Lovelock, et al. 2016. "Indonesia's Blue Carbon: A Globally Significant and Vulnerable Sink for Seagrass and Mangrove Carbon." *Wetlands Ecology and Management* 24, 3-13. <https://doi.org/10.1007/s11273-015-9446-y>.

<sup>7</sup> Unsworth, R.K.F., S.L. Hande, O.G. Bodger, L.C. Cullen-Unsworth. 2014. "Food Supply Depends on Seagrass Meadows in the Coral Triangle." *Environmental Research Letters* (September). <https://doi.org/10.1088/1748-9326/9/9/094005>.

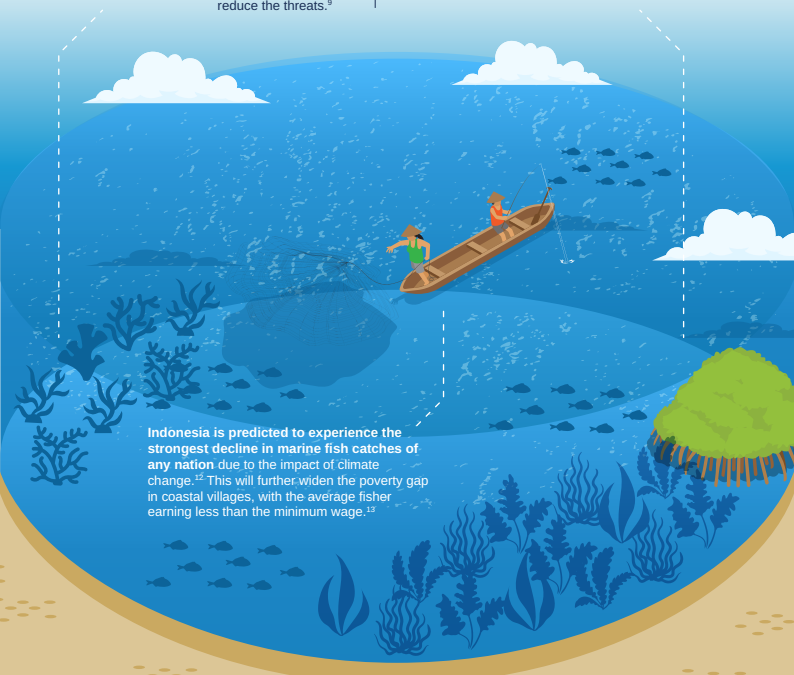
# There are challenges to the extent and integrity of Indonesia's marine and coastal ecosystems that, if not managed, could undermine the potential of Indonesia's ocean economy.

Globally, the world has lost **20-50%** of its coral reefs in the past few decades.<sup>8</sup>

The UN predicts that up to **90 percent of the global coral reefs could be lost by 2050** unless action is taken to reduce the threats.<sup>9</sup>

**1/3** of the coral reefs in Indonesia are already in poor condition,<sup>10</sup>

and an estimated **40%** of the country's mangroves and seagrasses degraded or lost.<sup>11</sup>



Indonesia is predicted to experience the **strongest decline in marine fish catches of any nation** due to the impact of climate change.<sup>12</sup> This will further widen the poverty gap in coastal villages, with the average fisher earning less than the minimum wage.<sup>13</sup>

<sup>8</sup> Eddy, T.D., Lam, V.W., Reygondeau, G., Cisneros-Montemayor, A.M., Greer, K., Palomares, M.L.D., Bruno, J.F., Ota, Y. and Cheung, W.W., 2021. Global Decline in Capacity of Coral Reefs to Provide Ecosystem Services. *One Earth*, 4(9), pp.1278-1285.

<sup>9</sup> Masson-Delmotte, V., Zhai, P., Pörtner, H.O., Roberts, D., Skea, J., Shukla, P.R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R. and Connors, S., 2018. Global Warming of 1.5 C. An IPCC Special Report on the impacts of global warming of 1.5°C.

<sup>10</sup> IPI (Indonesian Institute of Sciences), 2020. *The Status of Indonesian Coral Reefs 2019*. Jakarta, Indonesia.

<sup>11</sup> Unsworth R.K.F., R. Ambo-Redge, B.L. Jones, Y.A. La Nafie, A. Inawan, U.E. Hemsawan, A.M. Moore, et al. 2018. "Indonesia's Globally Significant Seagrass Meadows are Under Widespread Threat." *Sci Total Environ* 634 (September): 279-86. <http://doi.org/10.1016/j.scitotenv.2018.03.315>

<sup>12</sup> Cheung, W.W., Lam, V.W., Sarmiento, J.L., Kearney, K., Watson, R.E.G., Zeller, D. and Pauly, D. (2010). Large-Scale Redistribution of Maximum Fisheries Catch Potential in the Global Ocean Under Climate Change. *Global Change Biology* 16:24-35.

<sup>13</sup> Cahagi, D., and Gerning, R. (2018). "A Review on Indonesian Fishermen Prosperity in the Coastal Area."

Both long and short-term challenges facing the ocean can be addressed through a sustainable ocean economy strategy; such a strategy is being pursued by the Government of Indonesia through a range of initiatives, including by enhancing the effectiveness of Marine Protected Areas (MPAs).

### What does an effective MPA management look like?

An effective MPA is one where targets – including biodiversity, social and economic – have been defined and where there is evidence that those targets are being met.



Biodiversity



Social



Economic

The GoI aims to expand the MPA network to 32.5 million ha of **effectively managed** MPAs by 2030.

### What are the processes to achieve an effective MPA?

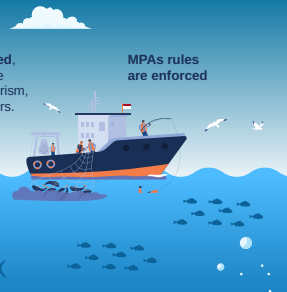
Infrastructure and capacity for effective management are in place



Better integration into wider fisheries management planning



Zoning system is implemented, including areas dedicated to the development of sustainable tourism, fisheries and aquaculture sectors.



MPAs rules are enforced

Local stakeholders are actively involved in MPA management, and communities benefit from MPAs.



Monitoring and evaluation are in place: Technical Guidelines for Evaluating Conservation Area Management Effectiveness (Evaluasi Efektivitas Pengelolaan Kawasan Konservasi, EVIKA) were recently established to support meeting this goal and to ensure MPAs are delivering targeted biophysical and socio-economic benefits.

Access to blue finance is available to sustain MPAs, particularly targeted to MPA operational and capital investments and infrastructure to support coastal livelihoods and value chains.

# Oceans for Prosperity (LAUTRA)

The Oceans for Prosperity Project (or *Laut untuk Kesejahteraan/LAUTRA*) – implemented by Ministry of Marine Affairs and Fisheries (MMAF) and Ministry of National Development Planning (BAPPENAS) with \$210 million total funding from the World Bank including grants from PROBLUE and Government of Canada – seeks to enhance the sustainable management of selected marine protected areas and coral reef fisheries, and improve access to economic opportunities for local communities in target areas.

The project will:

Finance

4

components

Work in

20

MPAs and  
75 surrounding  
villages

Located in

11

Provinces in  
Eastern  
Indonesia

## Component 1

Infrastructure and Institutional Strengthening for Sustainable Marine Protected Areas Management – led by MMAF.

Component 1 will strengthen ecosystem-based and participative management of about 20 MPAs (encompassing 8.3 million ha) and selected coral reef-associated fisheries within three target Fisheries Management Areas (WPP).

## Component 2

Expanding Economic Opportunities in and around Marine Protected Areas – led by MMAF.

Component 2 will enhance the values and benefits that local communities capture from marine resources in and around MPAs by taking a multipronged approach to improving access to economic opportunities, especially in the tourism, fishery, and aquaculture sectors.

## Component 4

Project Management

## Component 3

Sustainable Financing for Marine Protected Areas and Livelihoods – led by BAPPENAS through Indonesia Climate Change Trust Fund (ICCTF) in collaboration with MMAF.

Component 3 will improve the government's policy framework and capacity to mobilize long-term blue financing for: (a) MPAs operating and capital investments; (b) developing coastal infrastructure with biodiversity-positive impacts; and (c) enhancing MSME access to finance.

