

Sustainable protection of coastal ecosystems and communities from the impacts of climate change

A pro-biodiversity, pro-climate resilience project

The challenge

The Philippines is one of the countries most vulnerable to the impacts of climate change such as extreme weather disturbances and sea-level rise. These impacts can be mitigated by maintaining healthy coastal ecosystems which serve as natural buffers and provide protection against typhoons, storm surges and other coastal hazards. These ecosystems have been under considerable pressure, with 70 percent of Philippine communities located in the coastal areas. Unsustainable land and resource use practices contribute further to the degradation of mangrove and beach forests, coral reefs, and seagrass beds, placing these coastal communities at much higher risk.

National agencies and local government units (LGUs) have increasingly recognized the value of intact ecosystems for coastal protection by supporting existing best practices and innovative measures initiated by local communities. There is a need, however, for the widespread replication of these measures and techniques in other coastal communities to better mitigate the impacts of climate change.

Our approach

ProCoast aims to sustainably protect coastal ecosystems and communities from the impacts of climate change through the following work packages:

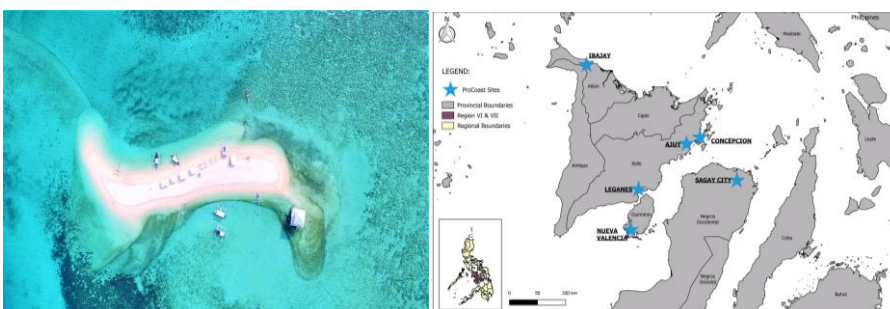
- Policy Advice and Capacity Development.** ProCoast supports the policy-making process for sustainable conservation measures and capacitates policy-makers and other relevant stakeholders on biodiversity conservation and climate change adaptation and mitigation mechanisms.
- Promotion of Innovative Protective Measures.** The sustainable protection of coastal ecosystems and communities from the impacts of climate change can be achieved through the participatory implementation of innovative protective

Project name	Sustainable coastal protection through biodiversity conservation in coastal ecosystems affected by typhoons in the Philippines (ProCoast)
Commissioned by	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
Project region	Philippines
Lead executing agency	Department of Environment and Natural Resources (DENR) Biodiversity Management Bureau (BMB)
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measures, focusing on the sustainable management of mangrove and beach forests, coral reefs, and land use. ProCoast will establish six Centers of Learning (CoLs) that will serve as venues for promoting innovative measures through learning visits, peer-to-peer exchanges, and training workshops.

- Awareness-Raising and Knowledge Management.** Increasing awareness of the significance of coastal ecosystems for protection and climate resilience will be achieved through networking, knowledge exchange, and public relations work in local, national, and international fora.

ProCoast supports DENR's Coastal and Marine Ecosystems Management Program (CMEMP), a 10-year national program under the BMB which aims to comprehensively manage, address, and effectively reduce the drivers and threats of the degradation of coastal and marine ecosystems. The Project will also work closely with the Zoological Society of London (ZSL), an organization working for biodiversity conservation worldwide; selected LGUs; and relevant public and private stakeholders including the academe, civil society, and other development agencies.



Left photo: Aerial view of Sagay Marine Reserve
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Right photo: Site map of ProCoast Centers of Learning
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The benefits

- The promotion and dissemination of effective innovative practices for the sustainable use and conservation of coastal resources in the region will secure protective measures and generate alternative income for the local population.
- Improved management of Marine Protected Areas (MPAs) and ecosystem-based land use planning will significantly enhance natural marine habitats to increase biodiversity for coastal protection.
- The integrated management approach aims to protect and conserve local fish stocks, coral reef systems, and mangrove and beach forests, thereby boosting the resilience of these ecosystems to the impacts of climate change.
- A coherent policy and strategy for integrated coastal management will promote active involvement in the political process from the local population to encourage them to take greater ownership of the implemented measures.
- Active participatory processes for rehabilitation initiatives and awareness-raising measures will promote a positive social environment and boost cohesion within local communities.

Success factors

Integration of the project in the country strategy and protective practices at all levels – macro (policy level), meso (support organizations and LGUs), and micro (communities in affected coastal zones) – and the linkage between policy, innovative measures, and awareness-raising are the key success factors for the project. The best practices of other BMU-supported projects, the Philippine government related programs, and the successful collaboration with ZSL will be applied and shared through the CoLs.

ProCoast also capitalizes on the good practices achieved and partnerships established during the implementation of previous projects such as DENR's Sustainable Coral Reef Ecosystem Management Program (SCREMP); GIZ's Sulu-Sulawesi Seascape Project, Protected Area Management Enhancement (PAME) Project, and Adaptation to Climate Change in Coastal Areas (ACCCoast) Project; and ZSL's Turing and Darwin Projects.

ProCoast Centers of Learning site features

Site	Features
Katunggan It Ibajay (KII), Municipality of Ibajay, Aklan	<ul style="list-style-type: none"> • LGU-managed mangrove ecopark and MPA • Active People's Organization (PO) and Fisheries and Aquatic Resources Management Council (FARMC) • Training center for mangrove management
Pedada Mangrove Eco-Park, Municipality of Ajuy, Iloilo	<ul style="list-style-type: none"> • Green-gray engineering using breakwaters in mangrove rehabilitation and coastal protection • Community-led mangrove rehabilitation and community-based mangrove and beach forest nursery • Training center for mangrove and beach forest management • Citizen science
Katunggan Ecopark, Municipality of Leganes, Iloilo	<ul style="list-style-type: none"> • Biophysical rehabilitation of abandoned fishponds • LGU-managed mangrove protection and conservation, and implementation of a mangrove greenbelt along the municipal coastline • Green-gray engineering and T-fence for sediment accretion and coastal defense • Assisted natural regeneration of mangrove forest • Private-Public Partnership on mangrove rehabilitation
iMPA Model, Municipality of Concepcion, Iloilo	<ul style="list-style-type: none"> • iMPA Model showcasing ZSL Net-Works (recycling discarded nets into carpets) • Municipally-legislated 743 ha with 200 ha No-Take Zone • Community-Managed Savings and Credit Associations (CoMSCAs) with a business model that includes ecological seaweed farming
Sagay Marine Reserve, Sagay City, Negros Occidental	<ul style="list-style-type: none"> • NIPAS site established through Republic Act 9106 • PA Management Plan and business plan managed and enforced by Sagay CENRO, PAMB and the PASu • Suyac Island Mangrove Eco-Park (offers tour guides and catering services) • LGU Social Marketing Program and Museo Sang Bata sa Negros • Active membership in Northern Negros Aquatic Resources Management Advisory Council (NNARMAC) inter-LGU alliance • Regulated fisheries e.g. open and closed season for sardines • Regular law enforcement activities with SMART Lawin CENRO Cadiz
Taklong Island National Marine Reserve, Municipality of Nueva Valencia, Guimaras	<ul style="list-style-type: none"> • PA Management Plan, PA zoning and carrying capacity plan • Regular law enforcement activities with SMART Lawin • Regular biodiversity monitoring system • Ecotourism Management Plan • Community-based rural tourism services as part of the province's ecotourism circuit (boat tour services, floating restaurant)

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