

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC295

Project Name	Coral Reef Rehabilitation and Management Program Phase III (P127813)
Region	EAST ASIA AND PACIFIC
Country	Indonesia
Sector(s)	General agriculture, fishing and forestry sector (50%), Public administration- Agriculture, fishing and forestry (25%), Sub-national government administration (25%)
Lending Instrument	Adaptable Program Loan
Project ID	P127813
Borrower(s)	Government of Indonesia
Implementing Agency	of Marine Affairs and Fisheries (Kementerian Kelautan dan Perikanan)
Environmental Category	B-Partial Assessment
Date PID Prepared	02-Aug-2012
Estimated Date of Appraisal Completion	14-Dec-2012
Estimated Date of Board Approval	28-Mar-2013
Concept Review Decision	Track I - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Indonesia has been on a path of rapid change and reform in the past decade. It experienced a rise in gross national income per capita from \$2,200 in the year 2000 to \$3,720 in 2009 with an annual economic growth of 6.4% in 2011, and also recently graduated from the IDA in FY08. Despite the macroeconomic successes, Indonesia is also facing an array of challenges, such as poverty, slow employment growth, high infant and maternal mortality, poor sanitation conditions, poverty, etc, which would mean meeting several of the country's Millennium Development Goals (MDGs) is unlikely.

Indonesia faces a continuous threat to its natural resources and environment. Its natural capital, which is estimated to be a quarter of its national wealth, is being rapidly depleted. The impact of climate change will impose additional burden to the country's development challenges. It is estimated that climate change consequences will impose the highest potential cost to the country's economy in the long run, with annual losses of 2.5 - 7.0 percent of GDP by 2100 . Deforestation, soil depletion and coastal/marine degradation are some other major environmental issues in Indonesia, all of which necessitate increasing investment for the country's environmental, social, and economic development

Sectoral and Institutional Context

Coral Reefs in Indonesia are the most diverse in the world and are considered the epicenter of marine biodiversity, in the heart of the Coral Triangle. Second only to the Great Barrier Reef in total area, Indonesia reefs span an area of some 2.6 million ha (or 26,000km²), or about 10% of the world's coral reefs. Indonesian reefs are diverse in both physical structure (ranging from fringing reefs, to atolls to barrier reefs) and in biological community structure, supporting an unparalleled array of coral species (590 species of stony coral), reef fish (2,500 species), mollusks, crustaceans, and associated fauna and flora. Yet despite the biological diversity and wealth of Indonesian coral reef ecosystems, they are at increasing risk from a combination of factors—climate change and escalating atmospheric CO₂ levels leading to warming and acidifying ocean waters; and a host of local stressors associated with increased population pressure, development pressure, destructive and over-fishing, pollution and invasive species. For the last 15 years, The Coral Reef Rehabilitation and Management Program (COREMAP), has been battling these threats, through a combination of decentralized governance and community-based co-management, education and awareness about the importance of reefs, community empowerment and economic incentives through seed funds for alternative livelihood generation under a Bank-financed APL covering three phases. The first phase of COREMAP laid the foundation for community-based management in a number of pilot sites in Eastern and Western Indonesia. This was scaled up in COREMAP II, the Acceleration Phase, in which an institutional framework, including supporting regulations, human capacity building, and a decentralized architecture for administration of coral reefs, was embedded at the District level across some 360 villages in Eastern Indonesia. The COREMAP project closed on December 31, 2011. The results have been positive in terms of community ownership of the notion that protecting reefs will generate benefits in the future and enhance community welfare, and in improvement in the condition of some reefs since the start of the program, linked to a reduction in destructive fishing and better overall protection. The achievements of COREMAP II are provided in Annex III. All of the identified triggers under the APL for the next phase - COREMAP III – have been satisfied at the end of the second phase operation (see Annex IV).

Major challenges remain, however, in terms of: (a) the sheer extent of reef area under threat relative to the area under improved management (there are some 10,000 coastal villages in Indonesia); (b) the time lag in the onset of measurable benefit streams from better stewardship and protection; and (c) the onset of climate change impacts entrained by existing levels of CO₂ in the atmosphere and in the ocean. The Government of Indonesia has committed to placing 200 million hectares of coral reef under Marine Protected Area management by 2020. So far, 100 million hectares have been so designated. COREMAP III is a major element in the GOI's strategy to meet these commitments. Building on what was achieved under COREMAP II, the next phase will ramp up efforts for transformational change in how coral reefs are administered and used by rural communities—and facilitate the extension of these interventions over larger areas across Indonesia. There are 305 coastal districts/municipalities across the country.

Relationship to CAS

The proposed COREMAP III is closely aligned with the Indonesia CPS (2009-2012) priorities. It will address several of CAS's economic and social development pillars, namely- strengthening government institutions and systems; private sector development; community development and social protection; and environmental sustainability and disaster mitigation.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The development objective of COREMAP Phase III is to provide communities with the capacity and incentives to co-manage their coral reefs sustainably, through support for: (a) more effective local governance; (b) livelihoods development and business innovation based on coral reef ecosystem goods and services; and (c) knowledge creation, dissemination and regional networking.

Key Results (From PCN)

In order to meet this development objective, Phase III activities focus on achieving three key groups of outcomes, with several key indicators for each: (a) improved capacity for sustainable management of coral reef ecosystems in program sites (management and empowerment indicators); (b) improved health and productivity of coral reef ecosystems in program sites (biophysical indicators); and (c) enhanced community welfare (i.e. community development and economic diversification) of coastal communities in program sites (socio-economic/ poverty indicators).

The key performance indicators for these three groups of outcomes are as follows:

- Management and empowerment indicators: (a) 20% of coral reefs designated as no take zones in eight target districts by 2018; (b) management effectiveness of 8 national level Marine Conservation Areas (including KKLD and National Marine Parks) in Project area improved by X percent over baseline by EOP (c) zoning for Marine Conservation Areas completed and operational in all eight project districts.
- Bio-physical indicators: (a) live coral cover increased or maintained at optimal levels in 70% of COREMAP sites (percentage cover to be determined based on healthy reference sites); (b) biomass of key indicator species (e.g., groupers and wrasses) increases significantly in DPLs and in managed reef areas by EOP.
- Socio-economic and poverty indicators: (a) income and living standards in target coastal communities greater than non-program sites and pre-program conditions; (b) eco-business approach (including technical and financial capacity, training and outreach, business incubation and marketing) successfully demonstrated in at least 4 districts with at least 50% eco-enterprises running on a commercial basis by EOP.

III. Preliminary Description

Concept Description

COREMAP III will have a district level focus with strong emphasis on community development and conservation of the natural resources base, for the direct benefit of users. Through improved governance arrangements at the District and Village levels, the project will introduce better management practices, and policy incentives to catalyze behavioral change by all key stakeholders. The project aims to protect a percentage of coral reefs as no-take zones to serve as sanctuaries for biodiversity and to help restore degraded fish stocks. Other ecosystem services include coastal protection during storm surge, reduced flooding and saltwater intrusion in low lying areas, maintenance of water quality and tourism amenity values, and carbon sequestration in mangroves and seagrass beds. No-take zones will also serve as sources of recruitment for corals, fish, and other threatened species, as well as provide critical habitat in the life history of many of species which are pelagic or migratory as adults. In addition to supporting protection of no-take zones, the project will introduce best fisheries management practices (including minimum size and allowable take limits,

closed seasons during spawning, and sustainable gear/fishing practices) to help rebuild over-fished stocks in traditional fishing grounds. Through protecting the functional integrity of healthy reefs and restoring ecological function to degraded reefs and fish stocks, natural resource rents can be harvested from ecosystem services and wealth created at the local, community level. This will create the kinds of incentives that will re-enforce behavioral change leading to long-term stewardship of coral reefs and related ecosystems.

Significant support for alternative livelihoods will be introduced through introduction of financially viable eco-enterprises at the Village and District levels. These alternatives are meant to provide greater returns to labor and should help drive the behavioral change and shift away from overfishing in areas where catch per unit effort has been declining steadily and composition of the catch and its value are also being eroded. Given the importance of women's involvement in the artisanal fisheries sector and their potential role in contributing to cottage industries like artisan handicrafts and eco-tourism, including home stays and vegetable gardening, etc., the gender dimension will be a priority. Once community revenues are building and profits invested in social development activities, women and children will benefit disproportionately, if investments are made in community health, education and nutrition. Expected benefits include increased revenues and resilience resulting from diversification and upgrading (higher markets) of activities of the participating communities, which will contribute to reduce the pressure on the natural resources and subsequently generating global benefits in terms of biodiversity, and integrity of fish stocks and threatened migratory species.

Based on the above approach, four components are envisaged:

Component 1: Extension of the COREMAP Model. This component will scale up activities relating to co-management of coral reefs in about 400 additional villages in 6 districts, selected on the basis of priority seascapes under the Coral Triangle Initiative.

The first set of activities are focused on COREMAP model scale-up, and will include: (a) community empowerment, consisting of training on sustainable coral reef fisheries training, baseline establishment through rapid rural appraisals, community study tours and visits, village facilitation and technical assistance through local level teams, and establishment of village information centers and communication arrangements; (b) community-based coral reef management, consisting of participatory resource assessment and mapping, preparation of village coral reef management plans with legal basis, establishment of village sanctuaries (no take zones), community monitoring of reefs and related eco-systems, and collaborative surveillance and enforcement; (c) institutional strengthening, consisting of training implementing agency and government staff on marine protected area and coral reef resources management, updating local legislation and national policy, using bio-physical and socio-economic information generated under the project, conducting research, and providing technical assistance and operational expenses support to local project management units; and (d) support for preparation of district marine resources strategic plan, networking the marine conservation areas within and across districts, and for co-management of national and smaller marine protected areas. These activities will support preparation of coral reef management plans, surveillance support for marine protected areas, and feasibility studies for sustainable financing of marine protected areas.

The second set of activities will cover a demonstration of the eco-system based approach to coral reef management. The project will support innovative initiatives such as: (a) valuation of coral reef

eco-system services; (b) marine spatial planning which will focus on district level integrated zoning, licensing, and permitting of tourism, fisheries, conservation, and transport-related activities, including use of GPS-based spatial data and harmonization of key regulations in competing sectors; (c) determination of impacts from ridges to reefs; (d) development and piloting of access-right based governance system in designated zones; and (e) promoting carbon sequestration in coastal areas (REDD+ and Blue Carbon for carbon offsets). These activities will be co-financed by the GEF.

The third set of activities will focus on developing a framework for addressing climate variability risk in this sector through vulnerability assessments of 5-6 pilot sites, determination of climate change adaptation strategies, investing in green infrastructure for climate change adaptation, and training coastal communities on climate change adaptation.

Component 2: Community livelihoods and Demonstration of Eco-Business Innovation. This component will support nature-based revenue-generating activities at the community/village level and eco-business hubs at the district level.

At the community/village level, the project will support: (a) development of a livelihood diversification strategy based on eco-business opportunities; (b) identification of a menu of potentially marketable products, based on the guiding principle of reducing pressure on coral reefs, improving environmental quality, and sustaining eco-system services and community welfare, in which communities could engage at the community or cooperative level; (c) provision of technical assistance to the locally-formed and operationalized community-based enterprises in the form of market research, eco-certification and branding, preparation of feasibility studies and business plans; (d) provision of venture capital through a revolving fund at the local level or loans through partnership with a local rural financial institution. Support for some of the needed green venture capital would come from GEF co-financing under the Biodiversity Focal Area.

At the district level, the project will provide access to finance and technical assistance, including applied research and innovation (see Component 4 below) to support eco-business enterprises. Investment options could include eco-tourism (hi-end low impact boutique resorts eco-tourism; home stays; guided tours/recreation/adventure tourism featuring natural and cultural amenities of the region dependent on high quality environment), artisan crafts development and marketing (to local eco-resorts or for export), mariculture (large scale/offshore in district-zoned areas; nearshore/community reef-based, reef ranching), fisheries value chain processing, certification and marketing, REDD+ and Blue carbon markets for mangrove/wetlands conservation, carbon offsets on voluntary market initially (corporate social responsibility for corporations that want to purchase carbon credits), biodiversity conservation premiums for healthy mangrove/coral reef complexes (focus in West Papua and Papua), and investing in Green infrastructure for climate change adaptation.

Component 3: Communication, Dissemination and Replication. This component will continue with the public awareness campaigns and education program, and also support the process of extending the COREMAP approach to the Phase III districts through dissemination of materials and cross-visits, and documenting the COREMAP approach for replication in non-project areas.

Component 4: Management, Research and Monitoring, and Coordination. The first set of activities under this component will enhance government institutional structures to implement the project and monitor critical performance indicators. The activities would focus on: (a) supporting the National

Coordination Unit in the Ministry of Marine Affairs and Fisheries, and the management capacity of program management units at the district level; (b) coral reef research and reef health monitoring; (c) fisheries research and district level fisheries population and bio-diversity monitoring; (d) continuation of the Sea Partnership program under which sector responsive research areas are funded; and (e) any legal and policy issues.

The second set of activities would relate to adaptive research in support of an ecosystem-based approach to management (i.e. designing ecologically resilient networks of Marine Protected Areas and other Marine Spatial Planning, valuation of ecosystem services, and assessing and addressing climate variability and risk) under component 1, and access to needed knowledge and innovation to support the development and marketing of eco-business models under Component 2. These research activities would be supported mainly under a regional GEF Targeted Research and Innovation Project, Capturing Coral Reef and related Ecosystem Services (CCRES), under the GEF/WB IW Program Framework, "Scaling up of Partnership Investments for Sustainable Development of Large Marine and Coastal Ecosystems of the East Asia Region" of which COREMAP III would also be a part.

The third set of activities will focus on coordination with other projects and government programs. The project will support incorporation of the project into the broader CTI framework, and enhance linkages with other related projects and government programs, such as the WB/GEF IW Program and CCRES project noted above, as well as the IFAD Coastal Communities Development Project (in preparation). It will also create an opportunity to link up with Green PMPN (National program of community driven development) as a platform for scaling up the COREMAP model beyond COREMAP project sites. This could conceivably be achieved by Government and PNPM institutions with little direct investment by COREMAP III, other than some training of trainers and community facilitation, leaving much of replication and scaling up to Local Government.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04	x		
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10	x		
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Tentative financing

Financing Source	Amount
BORROWER/RECIPIENT	10.00
International Bank for Reconstruction and Develo	50.00

Global Environment Facility (GEF)	12.00
Financing Gap	12.00
Total	72.00

VI. Contact point

World Bank

Contact: Marea Eleni Hatziolos
 Title: Senior Environmental Specialist
 Tel: 473-1061
 Email: mhatziolos@worldbank.org

Borrower/Client/Recipient

Name: Government of Indonesia
 Contact:
 Title:
 Tel:
 Email:

Implementing Agencies

Name: of Marine Affairs and Fisheries (Kementerian Kelautan dan Perikanan)
 Contact:
 Title:
 Tel:
 Email:

VII. For more information contact:

The InfoShop
 The World Bank
 1818 H Street, NW
 Washington, D.C. 20433
 Telephone: (202) 458-4500
 Fax: (202) 522-1500
 Web: <http://www.worldbank.org/infoshop>