Terminal Evaluation Report

Project Number: 44113-012
Technical Assistance Number: 7813-REG
Global Environment Facility ID: 3589-6446
June 2019

Coastal and Marine Resources Management in the Coral Triangle—Southeast Asia

(Cofinanced by the Global Environment Facility)

Asian Development Bank

ABBREVIATIONS

ADB	Asian Development Bank
CI	Conservation International
COREMAP	Coral Reef Rehabilitation and Management Project
CT6	Six countries of the Coral Triangle (viz., Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste)
CT3	Southeast Asian country members of the Coral Triangle Initiative
CTI	Coral Triangle Initiative
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security
CTMPAS	Coral Triangle Marine Protected Areas System
CTSP	Coral Triangle Support Partnership (of USAID)
DMF	design and monitoring framework
EAFM	ecosystem approach to fisheries management
GEF	Global Environment Facility
GIZ	German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH)
ICO	International Coastal and Oceans Organization
ICRS	International Coral Reef Symposium
IRRI	International Rice Research Institute
IRS	Interim Regional Secretariat
IW	International Waters
IWC5	5th International Waters Conference
IW: LEARN	International Waters Learning Exchange Network
JFPR	Japan Fund for Poverty Reduction
KM	knowledge management
KMIS	knowledge management information system
MAF	Ministry of Agriculture and Fisheries (Timor-Leste)
M&E	monitoring and evaluation
METT	management effectiveness tool
MEWG	Monitoring and Evaluation Working Group
MM	ministerial meeting
MMAF	Ministry of Marine Affairs and Fisheries (Indonesia)
MPA	marine protected area
MOSTI	Ministry of Science, Technology, and Innovation (Malaysia)
NCC	National Coordinating Committee
NGO	nongovernment organization
NOAA	National Oceanic and Atmospheric Administration
NPOA	national plan of action
PES	payment for ecosystem services
PMC	project management consultant
POA	plan of action
RCIF	Regional Cooperation and Integration Fund
RETA	Regional Technical Assistance

RPMO	Regional Project Monitoring Office
RPOA	regional plan of action
RSDD	Regional and Sustainable Development Department, ADB (now SDCC)
SDCC	Sustainable Development and Climate Change Department, ADB
SERD	Southeast Asia Department, ADB
SIDS	Small Island Developing States
SOM	Senior Officials' Meeting
SSEM	Sulu-Sulawesi Marine Ecoregion
TA	technical assistance
TNC	The Nature Conservancy
ToR	Terms of Reference
TWG	Technical Working Group
UN	United Nations
UNFCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
USAID	United States Agency for International Development
USCTI	United States Coral Triangle Support Program
USG	United States Government
WCS	Wildlife Conservation Society
WG	working group
WWF	World Wildlife Fund (also known as World Wide Fund for Nature)

NOTE

In this report, "$" refers to United States dollars

CONTENTS

BASIC DATA

I. Project Identification

GEF Project ID: 3589
GEF Agency Project ID: 6446
Countries: Indonesia, Malaysia, Philippines
Project Title: **Coastal and Marine Resources Management in the Coral Triangle—Southeast Asia**
GEF Agency: Asian Development Bank

II. Dates

Milestone	Expected Date	Actual Date
CEO endorsement	February 2011	March 2011
Agency approval date		May 2011
Start of implementation	February 2011	May 2011
PMC's start date	-	August 2012
Midterm evaluation	February 2013	October/November 2015
Project completion	February 2015	December 2017
Project closing (financial)	30 June 2015	4 June 2018
Terminal evaluation	-	January 2018/2019

CEO = chief executive officer, PMC = project management consultant

III. Project Budget by Component

Project Component	GEF financing (in US$)
1. Institutional Strengthening	2,317,977
2. EAFM	6,773,428
3. Sustainable livelihoods	390,598
4. Project Management	1,736,179
Subtotal	**11,218,182**
Additional GEF financing on 19 April 2013	200,000
Total approved	**11,418,182**
Total actual expenditures	**10,430,634**

EAFM = ecosystem approach to fisheries management, GEF = global environment facility

Activity types are investment (INV) or technical assistance (TA).
Promised co-financing refers to the amount indicated at the point of CEO endorsement/ approval.

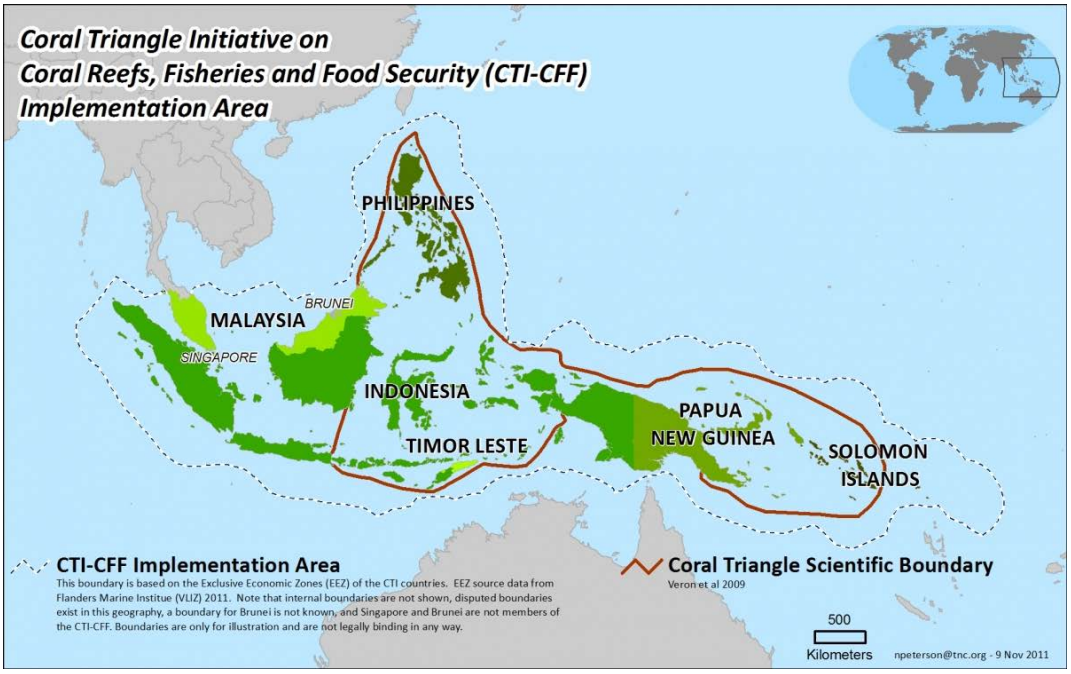
IV. Financing

Source of co-financing	Type	Amount Confirmed at CEO endorsement	Disbursed Amount at Closing ($)
GEF	Grant	11,218,182	9,522,669
ADB	Grant	1,000,000	691,961
Government of Indonesia	In-kind	1,000,000	1,000,000 (In-kind – no formal estimate made)
Government of Malaysia	In-kind	1,000,000	1,000,000 (In-kind – no formal estimate made)
Government of the Philippines	In-kind	1,000,000	1,000,000 (In-kind – no formal estimate made)
Govt. of Australia	Grant	229,000	216,003
Total TA financing		**15,447,182**	**13,430,633**

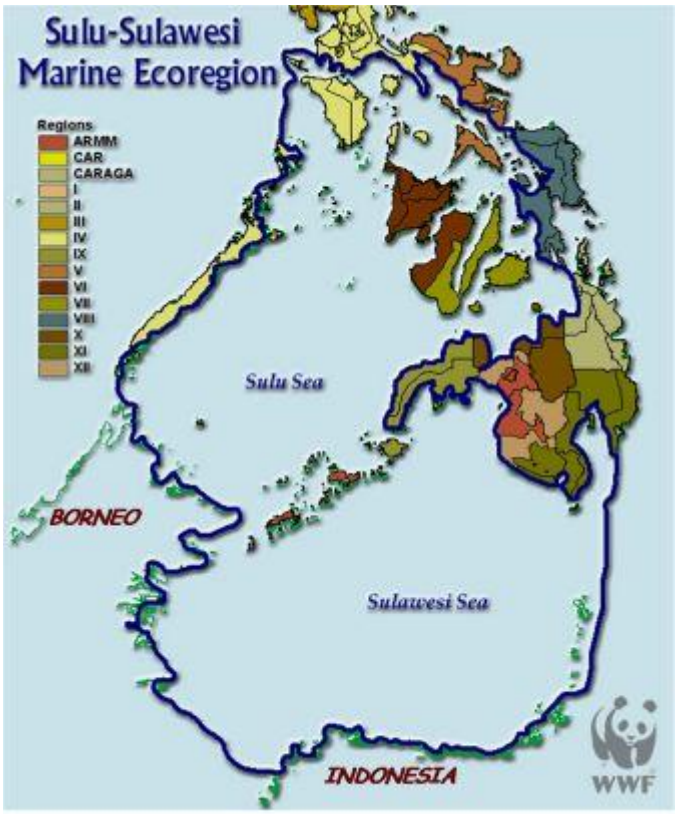
Source of co-financing	Type	Amount Confirmed at CEO endorsement	Disbursed Amount at Closing ($)
JFPR	Parallel	2,000,000	1,419,870 (as of 21 June 2019)[1]
USG	Parallel	22,050,000	22,950

JFPR = Japan Fund for Poverty Reduction, USG = United States Government.

Maps: Coral Triangle and the SSME



[1] JFPR 9160-REG: Developing Sustainable Alternative Livelihoods in Coastal Fishing Communities in the Coral Triangle. This Grant Project was completed on 15 November 2018 and is in the process of financial closure.


Sulu-Sulawesi
Marine Ecoregion
Regions
ARMM
CAR
CARAGA
I
II
III
IV
IX
V
VI
VII
VIII
X
XI
XII
Sulu Sea
BORNEO
Sulawesi Sea
INDONESIA
WWF

I. PROJECT DESCRIPTION

A. Objectives and Financial Support

1. The regional technical assistance (RETA) on Coastal and Marine Resources Management in the Coral Triangle—Southeast Asia, approved by ADB in May 2011,[1] supports the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF). CTI-CFF is a six-country regional cooperation program launched in 2007 to protect the CTI's environmental and economic assets. ADB has provided substantial technical and financial support of over $240 million to the CTI initiative, including two national projects (loan and grant) and several regional TAs – this RETA, henceforth termed the Project, covered the three CTI countries in Southeast Asia (CT3) of Indonesia, Malaysia and the Philippines, and focused on the Sulu-Sulawesi Marine Ecoregion (SSME) - this is at the heart of the Coral Triangle, the world's most biologically diverse marine environment covering 900,000 square kilometers, comprising the Sulu and Sulawesi seas and inland seas of the Philippines. Another RETA focused on CTI Pacific countries, while a 2009 RETA had provided regional support for knowledge management and institutional support to the CTI.[2]

2. The Project proposal was estimated to cost $15.2 million equivalent of which $12.2 million was provided as a grant: (i) $11.2 million by the Global Environment Facility (GEF)[3] and administered by ADB; (ii) $1.0 million provided as a grant from ADB's Technical Assistance Special Fund (TASF); and (iii) $1.0 equivalent (in-kind contributions) from each of the CT3 countries. The funding was mixed, with no separation of components by financing, thus GEF components/outputs are not separately identified. During implementation, an additional GEF fund of $0.2 million was provided. The Government of Australia also provided co-financing of A$0.25 million which partly financed the financial architecture study which identified and prioritized funding options and strategies and developed a project pipeline and activities scaled up from the TA.[4] A wide range of development partners support the CTI initiative, including the United States Agency for International Development (USAID), [5] the Government of Australia, UN agencies, and large international NGOs such as the World Wildlife Fund (WWF),[6] Conservation International (CI), and the Nature Conservancy (TNC).

3. The Project was approved by the GEF in March 2011 under the GEF-4 Strategic Program, with a focus on Biodiversity Conservation (SP1.SP4), International Waters (IW-SP1/2 sustaining coastal and marine fish stocks), and Climate Change (CC-SPA enhancing resilience of coastal and marine resources). The Project objective stated in the GEF Endorsement was to promote the long-term conservation and sustainable management of coastal and marine resources in the

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[1] ADB 2011. *Technical Assistance Report on Coastal and Marine Resources Management in the Coral Triangle: Southeast Asia, approved on 18 May 2011*. Manila

[2] RETA 7753 focused on Papua New Guinea, the Solomon Islands and Timor Leste. ADB 2011. *Technical Assistance Report on Strengthening Coastal and Marine Resources Management in the Coral Triangle of the Pacific (Phase 2), approved on 14 December 2010 for $15.1 million*. Manila. RETA 7307 provided regional knowledge management support and institutional support to the CTI. ADB 2009 *Regional Cooperation and Knowledge Management Policy and Institutional Support to the CTI, approved on 8 July 2009 for $1.7 million.*

[3] GEF 2011. *Request for CEO Endorsement/Approval dated 1st December 2010 and approved on 14 February 2011*. Washington. DC

[4] Total funding for the financial architecture study was USD500,000, comprised of: A$250,000, equivalent to USD220,000; and US$271,000 from the TA's uncommitted budget

[5] USAID in 2010 approved a five year $42 million financial and technical support program – the U.S. Coral Triangle Initiative Support Program (USCTI).

[6] WWF is also known and trademarked as World Wide Fund for Nature

SSME seascape by strengthening integrated and ecosystem-based resources management, generating significant global environmental benefits.

4. ADB has been the lead agency of the GEF in supporting the CTI. Through RETA 7307 (footnote 2 above) ADB helped support preparation of the CTI plan of action, facilitated information exchange and learning among CTI countries, and provided critical support to the Interim Regional CTI Secretariat. This included support to CTI Council of Ministers meetings (COM) and Senior Officials meetings (SOM), involving the CTI countries and key development partners, and to the CTI Financial Resources Working Group (FRWG) and the Coordination Mechanisms Working Group (CMWG). Key concerns in the first three years included financial resources and sustainable financing mechanisms for program activities and the CTI Secretariat itself; funding support for the programs and the CTI Secretariat remains a concern, with the smaller CTI countries in particular facing financial constraints in proving contributions to the Secretariat and for programs.

5. The CTI-CFF has five goals: (i) priority seascapes designated and effectively managed; (ii) ecosystem approach to fisheries management (EAFM) applied; (iii) marine protected areas (MPA) established and effectively managed; (iv) climate change adaptation (CCA) measures achieved; and (v) status of threatened species improved. The Project supported this through technical and operational support to help build policy, institutional, and coordination frameworks, conduct awareness programs on coastal and marine resource management (CMRM), establish marine protected areas (MPAs), and pilot test ecosystem-based projects. The Project supported the national action plans (NPOA) of the three countries and the regional plan of action (RPOA). The RPOA is a bold response adopted by the CTI leaders to sustain the marine resources in the CT for future generations. The plan provides a framework of goals, targets, actions and timelines that will address regional priorities over the next decades. It is intended as a rallying point for collective and parallel action at regional, national and sub-national levels. Within the broad framework of the plan, the six countries have developed NPOAs that address the unique needs and priorities of each Coral Triangle country but enable multi-lateral action as needed.

6. The expected impact of the Project was increased resilience of coastal and marine ecosystems and human communities in CT3. The expected outcome was improved management of coastal and marine resources established in the SSME Priority Seascape within the Coral Triangle. The outputs were: (i) policy and institutional frameworks for sustainable coastal and marine resources management improved; (ii) ecosystem-based approach to coastal and marine resources management pilot-tested; and (iii) effective project management established by ADB and the CT3 governments.

B. Terminal evaluation report (TER) Purpose and Methodology

7. A Technical Assistance Completion Report (TCR) was prepared by ADB in July 2018 following ADB TCR guidelines. A terminal evaluation report (TER) is required by GEF for GEF funded projects larger than $1 million. The TER follows the 2013 ADB Guidelines on the preparation of GEF TERs, which take into account the GEF 2011 evaluation guidelines. The TER examines the relevance, effectiveness, efficiency, sustainability and impact of the program, following the methodology for performance assessment set out in ADB's 2016 *Guidelines for Project Performance Evaluation.* While following ADB's PCR template for TERs, the TER gives additional attention to GEF requirements relating to: (i) global environment benefits and GEF tracking tools; (ii) impacts – innovative and catalytic activities, theory of change and progress to impact; (iii) risks-financial, socio-political, institutional and governance, and environment risks; and (iv) the Monitoring and Evaluation system. These have been included within the text for this TER where appropriate, with some additional information provided in the Appendixes. The TER was prepared

by an independent evaluation specialist consultant. Appendix 1 provides summary information on the terms or reference and evaluation methodology.

II. DESIGN AND IMPLEMENTATION

A. Project Design and Formulation

8. During CTI meetings of officials, stakeholders and Partners in 2008 and 2009 ADB pursued a proactive coordinating role, and jointly with National Coordinating Committees (NCC) and key stakeholders encouraged a niche role for ADB as the lead agency for GEF to assist member countries to access GEF funds. This would enable them to effectively implement their NPOAs, in collaboration with other multilateral agencies, in particular, USAID's support program. ADB had been providing substantial subproject support to the CTI countries. Members were concerned that the agenda should not be driven by Partners, and saw ADB as taking an assisting and coordinating role. In September 2008, GEF approved ADB's request for a preparation grant of $500,000 to prepare a full-sized RETA project proposal.[7] The $500,000 grant was approved by ADB as supplementary financing in an ongoing RETA on sustainable management of natural resources in the Southeast Asia region in December 2008. [8] Full project preparation of the Project involved both ADB staff and specialist consultants, and included a series of consultations with CTI NCCs, key concerned stakeholders and Partners. Processing of the Project was prolonged due to difficulties in securing sufficient funding to leverage the GEF commitment of $11.2 million. ADB developed a TA Concept Paper in March 2010 designed to mobilize ADB resources and retain access to GEF funds that had been committed to the CTI countries. As noted in para.2, the full Project proposal was submitted to the GEF Secretariat for the CEO endorsement in December 2010.

9. The Project supported in-country and regional activities to help implement the NPOAs and the RPOA. It included trans-boundary MPAs and collaboration on effective monitoring, control and surveillance (MCS) system, and information exchange through websites and knowledge management. ADB support would focus on resource mobilization, coordination of partner support and activities, policy and legislative development and technical and operational support and capacity building, recognizing limited national capabilities. The CTI and RPOA/NPOA process, including the SOMs and Meetings of ministers demonstrated a strong commitment to the CTI.

10. The marine and coastal resources of the CT are at risk from continued threats from human activities (over fishing, bad fishing practices, sand mining for construction, pollution from land-based activities) as well as climate change-induced events including storm surges and wave action. As discussed further under relevance (section III below), the Project addresses these by supporting the national and regional plans of action to improve the management of coastal and marine resources. It complemented other ADB initiatives supporting the CT and is in line with ADB's Strategy 2020 which recognizes the need to promote sound environmentally sustainable economic growth and strengthen regional initiatives for adapting to climate change. It is aligned with ADB's Regional Cooperation and Integration Strategy, the fourth pillar of which is cooperation in regional goods, and supports the partnership strategy of each CT3 country. As noted in para.3 above, it is aligned with GEF-4 strategies and programs.

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[7] GEF 2008. *Request for Project Preparation Grant dated August 21, 2008 and approved September 24, 2008.* Washington. DC

[8] ADB 2008. *Major Change in Scope and Amount for TA 6446, Strengthening Sound Environmental Management in the Brunei Darussalam, Indonesia, Malaysia and Philippines East ASEAN Growth Area (Supplementary Funding from The Global Environment Facility).*

11. There were no specific design changes during Project implementation, although the contribution to the Project from the Japan Fund for Poverty Reduction (JFPR) was implemented as a separate parallel project to improve sustainable livelihoods in coastal districts in Indonesia and the Philippines.[9] The JFPR project aimed to raise incomes in poor coastal communities in Berau District in East Kalimantan, Indonesia, and in Balabac in Palawan, Philippines, by pilot-testing support mechanisms for sustainable livelihoods. The JFPR project objective was to develop model alternative livelihoods that would involve women and indigenous people in development which could be replicated elsewhere.[10] The Project retained a sustainable livelihoods component for Malaysia, focusing on improving the welfare of poor populations in coastal villages in Kudat, Sabah through ecotourism including handicrafts.

B. Project Outputs

12. The Project has three outputs as set out below (see DMF, Appendix 2 and Appendix 3 for details, including achievements). The DMF that was included as part of the GEF Request for CEO Endorsement document is basically the same as the DMF included in the ADB RETA approval document, but presents some of these slightly differently, such as showing four outputs due to adjustment in grouping, plus some minor target differences – these differences are shown in the Appendix DMF. [11]

(i) **Output 1**. **Policy and institutional frameworks for sustainable coastal and marine resources management improved.** This output was achieved; it included helping to establish policy, legal, and regulatory frameworks for institutionalizing effective coastal and marine resources management and adopting national operational guidelines for ecosystem-based management of coastal and marine resources, both of which were partly in place by the time the Project started but which the Project helped develop further. The output also focused on building capacity to plan and implement investment programs, training nearly 5,000 agency staff and other stakeholders in understanding the impacts of climate change, developing an ability to identify and implement appropriate adaptation measures in ecosystem-based coastal and marine resources management. Awareness programs also promoted sustainable financing of resource management, including involving communities and the private sector.

(ii) **Output 2**. **Eco-based approach to coastal and marine resources management pilot-tested.** This output was fully achieved: five local ecosystem-based management plans were developed in project sites; MPA management was improved and CCA measures such as community-based mangrove reforestation was pilot tested in three local communities; 82 households were beneficiaries of livelihood microenterprises in Sabah. A marine ecotourism-based payment of ecosystem services (PES) scheme to

[9] JFPR Grant Assistance for Developing Sustainable Alternative Livelihoods in Coastal Fishing Communities in the Coral Triangle: Indonesia and Philippines (Grant 9160), approved on 2 November 2011. Implementation was delayed due largely to procedural concerns and government clearances, with activities only commencing in the Philippines in 2015 and in Indonesia in 2016. The completion date was extended from November 2015 to November 2018. The RETA TCR and JFPR Completion Report are under preparation.

[10] Most of the Project addressed coastal resource management, while the JFPR project focused on poverty reduction activities, such as empowering remote coastal communities to engage in viable business operations, providing capital and production inputs to free beneficiaries from dependence on traders, and developing business mechanisms that are workable for the poorest of the poor and women's groups. Its piloted livelihoods in selected villages that would add value, introducing new processed products and improving the quality of products that the villages already produce

[11] Fuller details of RETA achievements are set out in Appendix 4 of the Final Report (December 2017) of the RETA PMC, PRIMEX.

promote sustainable financing of resource management and CCA was introduced in the Philippines. A tri-national monitoring, control, and surveillance (MCS) system was designed to address illegal, unreported, and unregulated fishing (IUUF) in the SSME, and a resolution promoting sustainable live reef food fish trade (LRFFT) in the region was signed at the LRFFT Intergovernmental Forum in Thailand in February 2013. An agreement was reached among the CT3 on a transboundary MPA network (MPAN) for marine turtles (Sebatik in Indonesia, Turtle Islands Park (TIP) in Malaysia, and Balabac and Turtle Islands Wildlife Sanctuary (TIWS) in the Philippines).

(iii) **Output 3. Effective project management established by ADB and the CT3 countries.** This output was fully achieved. A TA coordination unit was established in ADB and a regional project management office (RPMO) set up by the Project Management Consultant (PMC) in Manila, with national PMUs in Jakarta (Indonesia), Sabah (Malaysia), and Manila (Philippines). Linkages were established with other projects and development partners, leading to collaboration in many project activities. A Project performance management system (PPMS) including a M&E system was developed and maintained in the RPMO. GEF tracking tools were used to assess the effectiveness of MPA management. The Project published and/or uploaded all the knowledge management (KM products) produced by the project, including technical and information materials.

C. Project Costs and Financing

13. The Project was estimated to cost $15.4 million equivalent of which: (i) $11.2 million was provided on a grant basis by the Global Environment Facility (GEF)[12] and administered by ADB; (ii) $1.0 million provided as a grant from ADB's Technical Assistance Special Fund (TASF); and (iii) $1.0 million equivalent from each of the CT3 countries. Funding was mixed, with no separation of components by financing, thus GEF components/outputs are not separately identified.

Table 1: Financing Plan and Expenditure ($)

Source of co-financing	Type	Approval	Completion
GEF	Grant	11,418,182	9,522,669
ADB	Grant	1,000,000	691,961
Government of Australia	Grant	229,000	216,003
Government of Indonesia	In-kind	1,000,000	1,000,000 (In-kind – no formal estimate made)
Government of Malaysia	In-kind	1,000,000	1,000 000 (In-kind – no formal estimate made)
Government of the Philippines	In-kind	1,000,000	1,000,000 (In-kind – no formal estimate made)
Total TA Financing		**15,447,182**	**13,430,633**
JFPR	Parallel	2,000,000	1,419,870 (as of 21 June 2019)[13]
US Government	Parallel	22,050,000	22,950

[12] GEF 2011. *Request for CEO Endorsement/Approval dated 1st December 2010 and approved 14 February 2011*. Washington. DC

[13] JFPR 9160-REG: Developing Sustainable Alternative Livelihoods in Coastal Fishing Communities in the Coral Triangle. This Grant Project was completed on 15 November 2018 and is in the process of financial closure.

D. Disbursements

14. As noted below, the Project was expected to be completed within 4 years but took over 6 years, disbursements thus not happening as planned. The project coordinator was recruited in September 2011, followed by the engagement of the PMC in August 2012, when eight per cent of project funds were disbursed, mostly reflecting mobilization and advance payments to the PMC. However, over the next four years up to 2016 only 12-14% was disbursed each year. It should have been clear by 2015 that the project would not be completed in time and an extension request could have been organized then to ensure funds could be effectively disbursed. The reasons for delays are discussed further below (paras.19-20) but largely relate to procedural and organizational concerns at national levels, with actual project level activities barely getting under implementation by 2015. For example, 56% of the activity "capsule" proposals for activities under the Project (para.19) had been submitted and approved by 2014, but start up implementation was slow and mostly after 2015. Fund disbursements accelerated in 2017, but at a rate that was probably not sustainable and when the one-year PMC extension came to an end, over $2 million remained unspent (see Appendix 4). However, Project outputs had largely been achieved by then and no further extension was sought.

E. Project Schedule

15. The Project was meant to have been implemented over a 4-year period commencing 1st July 2011 with completion date of 30 June 2015, but the Project was closed two and a half years later on 31 December 2017. The PMC was mobilized relatively efficiently on 12 August 2012. However, implementation activities were slow to get started, partly due to slow approval of work plans which were submitted with the Inception report in September 2012 but not approved for the Philippines until March 2013, and for Indonesia July 2013. There were delays also in approval of subsequent annual work plans due to unavailability of high-level government officials to endorse these. In addition, approval of subprojects and sites had to be sought from the NCCs and the SCC and this took time. Field activities themselves took longer to implement because of several factors, such as the length of time needed to get field data as required by approved methodologies, weather and sea conditions, accessibility of project sites, and security concerns in some areas. The capacity of partner universities to manage the administrative aspect of implementation also affected their ability to deliver final research outputs on time.

16. The PMC contract completion date was extended four times from 12 August 2016 to 30 September 2017, then to 30 November 2017, and then to 15 and 31 December 2017. Many activities started only in 2013, with project implementation reaching its peak from 2016 to 2017.

F. Implementation Arrangements

17. Implementation arrangements followed those set out in the TA paper. ADB's Southeast Asia Regional Department (SERD), through Southeast Asia's Environment, Natural Resources, and Agriculture Division (SEER), was the executing agency (EA) for the RETA, while the designated CTI lead agencies in the CT3 were the implementing agencies (IAs) – Ministry of Marine Affairs and Fisheries in Indonesia; National Oceanography Directorate of the Ministry of Science, Technology and Innovation in Malaysia; and the Department of Environment and Natural Resources in the Philippines. A TA coordination unit was established within SEER, with an international project coordinator/monitoring and evaluation specialist recruited directly by ADB to oversee Project implementation. ADB engaged the services of the Pacific Rim Innovation and Management Exponents, Inc. (PRIMEX), Philippines as the project management consultant (PMC). PRIMEX worked in association with PT. Trans Intra Asia (TIA), Indonesia and the World

Fish Center (WFC), Malaysia. A regional project management office (RPMO) was set up by PRIMEX in Manila. The PMC provided project management support and technical advisory assistance to the countries in project planning, implementation, and liaison with ADB and the CTI Regional Secretariat. Project Management Units (PMUs) were put up in each of the CT3 IAs. A knowledge management unit was set up in the RPMO; this served as the contact point for collaboration with the CTI-CFF Regional Secretariat for knowledge dissemination and promotional events. The Project prepared many knowledge management products and technical reports and made these available on the web allowing wide spread access; they are listed in Appendix 9. As noted further in section G (paras.22-25 below), partnerships were a key component of project implementation.

18. CTI-CFF implementation was supported by the CTI Regional Secretariat (initially based in the Ministry of Marine Affairs and Fisheries in Jakarta before moving to its own offices in Manado). The Secretariat organized Summits involving the participation of heads of state of the CT6, Ministerial and Senior Officials' meetings. A CTI Coordinating Committee (CCC) and National Coordinating Committees (NCC) were established to coordinate and implement the RPOA and the NPOAs. In addition to the support provided under RETA 7307, the Project provided support to the interim Secretariat, providing an M&E specialist and a coastal and marine resources policy specialist.

19. While some of the output targets were regional in nature addressing transboundary issues and environmental concerns common to the three counties, implementation was generally at the national level. The Project also supported the implementation of targeted national and regional subprojects. Selection of such subprojects followed a participatory process involving the designated government IAs and the CTI NCCs. For each of the subprojects and stand-alone activities, a capsule proposal (CP) was developed by RPMO, in close consultation with the concerned NCC, for ADB approval. This covered every workshop and meeting and any activity funded by the provisional sum in the PMC contract (e.g. studies, surveys, training, demonstration projects). No activity could be implemented without ADB's formal written approval of the capsule proposal. While this added to diligence and transparency, enabling experience and lessons learned from similar projects to be reflected, and ensuring mutual understanding between ADB, the PMC and the NCCs, it delayed implementation of proposals, sometimes substantially. Once approved by ADB, the subprojects were implemented through subcontracts with selected national/local institutions (universities, NGOs) or individual consultants, or directly by PMC specialists working in partnership with national or local government agencies, international organizations, NGOs, or community-based organizations (CBOs) such as fishers' or farmers' associations and local universities and national high schools.

20. As noted above, there were delays in implementation, notably in the first two years, which are reflected in disbursements. Implementation of initial activities was delayed due to late endorsement of 2013 budgets by the NCCs in the Philippines and Indonesia, and late and partial approval of the budget by the Malaysia NCC. There were extended consultations with partner institutions in Indonesia and Malaysia, on ToRs and costs of activities due partly to budget constraints. In Malaysia the resignation of the CTI focal person after changes in the national government delayed approval for subproject activities. The merger of the Ministry of Forestry and Ministry of Environment in Indonesia in October 2014 led to reorganization of the NCC, causing delays. Changes in consultants and deputy team leaders added to delays in Indonesia and Malaysia. The approval process in ADB for capsule proposals submitted by the PMC (para.19) involved lengthy procedures with additional time needed for consultation and clearances (para.50). There were also more general challenges in scheduling activities at some project sites due to inclement weather and logistical problems with distant sites.

21. As described more fully in section L below (paras.30-35) a robust monitoring and reporting system was established for the project and implemented effectively. This and the quarterly progress reports submitted by the PMC to ADB facilitated project monitoring and management.

G. Partnerships

22. The Project was very proactive in developing partnerships with government agencies at both national and local levels, and with other NGOs and development partners to attain synergy in the use of resources and to avoid duplication of effort. The project used the LEAP (Local Early Action Plans) toolkit prepared by the United States Agency for International Development (USAID); USAID supported a Coral Triangle Support Program (CTSP) to facilitate the community-based approach to CCA planning (footnote 5).

23. In Indonesia, the project implemented CCA activities with the participation of local government agencies including the Ministry of Marine affairs and Fisheries, the Ministry of Environment and Forestry, The Ministry of Public Works, The Ministry of Health, and the Bunaken National Park. These agencies used their regular programs to complement the Project's CCA activities, such as provision of social infrastructure, establishment of health and sanitary facilities, mangrove reforestation, and installation of artificial reefs. The Project worked with the two biggest universities with marine science institutes in Sulawesi island, viz., UNSRAT in Manado, North Sulawesi and UNHAS in Makassar, South Sulawesi. UNSRAT was contracted for the "Mapping and Analyses of Climate and Climate Projection Exposures in Amurang Bay, South Minahasa" in collaboration with scientists from the Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG). The project worked with UNHAS in Makassar. UNHAS has been providing technical support on marine and fisheries matters to the province of Gorontalo and was contracted for the subproject Improved Turtle Conservation in Sebatik Island, North Kalimantan, Indonesia. Researchers from the University of Borneo in Tarakan (UBT) and the Center for Fishing Gear Development of MMAF were also involved in implementing this subproject. The Project also collaborated with the German agency for international cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH - GIZ), which has an ongoing program on turtle conservation in the Sulu Sulawesi Seascape. Several government institutions and NGOs were involved in the conduct of training or the provision of technical guidance or assistance during the implementation of Project activities including the Wildlife Conservation Society (WCS.

24. In Malaysia, the project worked with the Borneo Marine Research Institute of the Universiti of Malaysia Sabah (UMS-BMRI) in the conduct of research activities in Marudu Bay, part of Tun Mustapha Park (TMP). They also collaborated with the Departments of Fisheries in Sabah and Malaysia (DOFS, DOFM), and the Universiti Sultan Zainal Abidin, Malaysia (UniSZA) in conducting EAFM training using the Food and Agriculture Organization (FAO) E-EAFM module adopted by Malaysia in operationalizing the Code of Conduct for Responsible Fisheries. The Project coordinated with Sabah's Town and Regional Planning Department (TRPDS), which prepared a white paper on the application of integrated coastal zone management (ICZM) in Sabah for Cabinet approval, to ensure that the ICZM activities of the project are consistent with TRPDS policies and guidelines.

25. In the Philippines, collaboration and partnerships with local agencies, international NGOs, and development agencies have resulted in synergies in effort and complementation of activities at several project sites. The Project activities on CCA implementation in Taytay, Palawan built upon the CCA Plan prepared by WWF with funding from the USAID CTSP. Mangrove cutters in Taytay were organized and provided livelihood projects through a cost-sharing arrangement

between the Project and the Sustainable Livelihood Program (SLP) of DSWD in exchange for giving up mangrove cutting. The International Rice Research Institute (IRRI) based in Los Banos Philippines provided salt-tolerant and climate-smart rice varieties and technical guidance to restore the productivity of rice paddies in the coastal areas rendered unproductive by saltwater intrusion. The Philippine PMU also conducted training in community health management and disaster risk reduction management (DRRM) in collaboration with the Municipal Health Office (MHO) and the DRRM Office of Taytay. The partnership with the Department of Education has been instrumental in facilitating the conduct of youth camps on CRM and CCA with the national high schools in Palawan and in Dumanquillas Bay. The Philippine PMU worked with ADB's NGOC, through its Youth for Asia program, in producing a three-minute video on the successful mangrove reforestation project of Central Taytay NHS in Palawan under the Heroes of the Environment Campaign.[14] The video presentation was shown during the Asia Youth Forum in Yokohama, Japan in May 2017.

H. Technical Assistance

26. The Project provided substantial technical assistance inputs as set out in section I below, and coordinated with TA inputs provided under other ADB support RETAs such as RETA 7307 (para.4). As noted in para.8, the RETA Concept Paper and approval paper were prepared by ADB staff and consultants, utilizing a project preparation grant of $500,000, provided by GEF.

I. Consultant Recruitment and Procurement

27. The Project engaged a consulting firm as the project management consultant (PMC) to establish implementation arrangements; coordinate activities, studies, and training; and assist the executing agency and implementing agencies. The PMC contract provided for a total of 640 person-months of consulting inputs of which 182 person-months or 28% were international and 458 person-months or 72% were national (contract provision was made for an estimated $10.55 million for the PMC consultants and Project activities; the final reimbursed amount was $8.70 million). The Project also engaged individual consultants: (i) resource economist and project costing specialists (62 person-months) to prepare costing reports to achieve the NPOAs; (ii) finance and accounting specialist (22 person-months) to prepare the chart of accounts for allocation of revenue and expense items in the CTI projects; (iii) international project coordinator (36.28 person-months) to establish a monitoring and evaluation system; and (iv) project evaluation specialist (1.82 person-months) to develop a Terminal Evaluation Report required by the Global Environment Facility (GEF) to evaluate project implementation results. The terms of reference for consultants were adequate and the consultants performed well (section III F). All planned Project activities were completed.

J. Gender Equity

28. The Project was not classified as having a gender equity theme, nor specified any gender concerns. Gender concerns were integrated in the Project activities – from the preparation of activity plans to stakeholder consultation and mobilization, design and delivery of training and capacity building activities, and the implementation of subprojects and interventions. Two gender targets in the DMF were monitored by the PMC, namely: (i) at least 30% of the 200-government staff trained on ecosystem-based coastal and marine resources management would be women;

[14] NGOC is ADB's NGO and Civil Society Centre and is part of ADB's Sustainable Development and Climate Change Department; it supports CSO participation in ADB operations. Funding support has also included contributions from ADB's Staff Community Fund to help the needy.

and (ii) 15% of the 100-250 household beneficiaries of sustainable livelihood and microenterprises in Sabah, Malaysia would be headed by women. The first target was exceeded. As of 30 November 2017, a total of 5,241 participants from the government sector, the academe, and development agencies, attended trainings conducted by the Project related to seascape, MPAs, and EAFM. Of these participants, 2,369 (or 45%) are women, thereby exceeding the DMF target of 30% women participation in training activities. There was a specific DMF target under output 2 for Sabah in Malaysia for establishment of sustainable livelihood and microenterprise models for 100-250 households with at least 15% of the enterprises headed by women in 4-5 coastal villages. Enterprises established included sea cucumber mariculture including two pilot sea cumber pens owned and operated by women in Mapan-Mapan. In addition, two other women received specific training and were given facilities to improve the quality of their products. Local women fish traders also benefited from the project. In Kudat village, 28 women in five villages directly or indirectly benefited from the project (see Appendix 3 for achievements). A gender action plan was also included in the parallel JFPR project.

K. Safeguards – Indigenous People

29. The Project approval documents did not specify any safeguard concerns. The Project employed an inclusive approach in its capacity building and livelihood assistance and in Balabac, Palawan in the Philippines this involved ethnic minorities. Among the beneficiaries who participated in livelihood training activities are out-of-school youth, Molbog women, housewives, and drug surrenderees. The Molbog, a Muslim cultural minority group numbering around 5,300 in Balabac, are basically sustenance fishers and farmers, who have little access to education and basic services. Their literacy rate is estimated at only 7%. In partnership with the Balabac LGU and TESDA, the Project organized training on food processing geared primarily for Molbog women, who have previously not been considered for such capacity building activities. In 2016 and 2017, the Project provided the coastal community of Ramos in Balabac town, including the Molbog, with supplies and materials for seaweed farming and backyard goat raising, as well as books and other educational materials that were donated to the satellite high school put up by the barangay for its Molbog children. Funding support from private individuals were also accessed by the PMU to enable the school to put up a semi-concrete classroom to add to the three makeshift, nipa-bamboo sheds used by the teachers for their classes.

L. Monitoring and Reporting

30. A sound monitoring and reporting system was established for the Project and implemented rigorously. The M&E system is rated as fully satisfactory in design and successful in implementation. The project budget for M&E was substantial, with the PMO (PRIMEX) budgeting $50,098 but actual expenses were $28,508 only, about 0.33% of the Project's actual expenses. ADB monitored progress regularly through the TA coordination unit (para.17).

31. As noted in para.17 above, a TA coordination unit was established within SEER in ADB with an international project coordinator/monitoring and evaluation specialist recruited directly by ADB to oversee Project implementation, while a regional project management office (RPMO) was set up by the PMC in Manila. Project Management Units (PMUs) were established in each of the CT3 IAs. The PMC prepared a detailed project implementation plan (included in their Inception Report) which was discussed with ADB and the NCCs in regional and national workshops.

32. The PMC established a project performance monitoring systems (PPMS) for monitoring the work programs in the RPMO and in each PMU to monitor and evaluate project performance in both implementation and achievement of targets and intended objectives. The PPMS includes

outcome and output target parameters and generation of data on gender, household income and impact of project activities. Each PMU was responsible for preparing progress reports, and linking the NCCs to the CTI monitoring and evaluation system at the CTI Regional Secretariat. The RPMO supported the PMUs and provided training as needed. The PPMS covered: (i) monitoring of institutional and financial progress including efficiency of implementation of key activities; (ii) monitoring of stakeholder participation; and (iii) monitoring of the project's social, environmental and economic impacts.

33. The PMC developed an operational framework based on the DMF and its outcome and output targets which set out key result areas (KRAs) for each of the three project outputs to meet these targets. These were reported on regularly to ADB in quarterly progress reports (QPRs). The emphasis was on project outputs with physical target accomplishments reported on quarterly. QPRs were submitted on the month following the end of the quarter, with 19 QPRs being produced over the project period. These were all of a good quality, and submitted on time, and took up substantial PMC inputs. Being quarterly, they exceeded GEF requirements of annual reports. Annual Project Implementation Reports (PIRs) were prepared by the ADB project officer responsible for the Project and submitted to the GEF team in ADB and Washington. These are relatively routine reports and did not flag any major implementation concerns; no feedback was seemingly received from GEF, which suggests a potential weakness in the review process as they are not reviewed by any other independent reviewer – the MTR process, however, provided such an opportunity for more rigorous review. The PMC prepared an Inception report in November 2012, a midterm report in October 2014, and a draft final report in December 2017. A full mid-term review mission involving ADB, the PMC, IAs and stakeholders was carried out in October-November 2015.

34. GEF biodiversity tracking tools were part of the M&E system. Prior to the mid-term review, the PMC had assessed the effectiveness of management of protected and conservation areas in selected project sites using the Management Effectiveness Tool (METT) scoring method, which addressed objectives 1 and 2 of the biodiversity focal area of GEF (see section III E, impact, paras.61-74 and Appendix 7).

35. As set out in section IV B below, recommendations are included for future monitoring, although constraints exist for such activities, including finance and technical capacity. While the GEF biodiversity tracking tools remain in place, it is hard to see who will conduct follow up assessments unless funding from outside sources is secured for CTI national and regional activities, including for the CTI Secretariat.

III. EVALUATION OF PERFORMANCE

A. Relevance

36. The Project is rated *highly relevant*. The Project was designed to help address risks confronting the conservation of the rich biodiversity in the Coral Triangle from climate change and human activities. The Coral Triangle covers nearly 5.7 million square kilometers of ocean around the six CTI countries which contain three quarters of all know coral species, over half of the world's coral reefs, 40% of all known coral reef species and the greatest extent of mangroves in the world. The Project focused on the Sulu-Sulawesi Marine Ecoregion (SSME) which is at the heart of the Coral Triangle, covering 900,000 square kilometers, comprising the Sulu and Sulawesi seas and inland seas of the Philippines.

37. The Project was aligned with NPOAs and the RPOA and was designed to ensure sustainability by building on fundamental policy and institutional frameworks within the CT3 countries including the establishment of MPAs and the CTI Regional Secretariat, and use of EAFM approaches to implement and monitor activities of the NPOAs and RPOA. It recognized the need to establish a transboundary network of MPAs in the SSME. The Project design took account of differing institutional and stakeholder capacities, focusing on training, institutional capacity building, awareness raising and developing and disseminating knowledge products. Looking to the future, it involved the youth in environmental protection, resource conservation, waste and solid waste management, and climate change adaptation activities particularly through mangrove reforestation.

38. The CTI is a subprogram of the Association of Southeast Asian Nations (ASEAN) program — the Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area — which falls within the strategic agenda on regional cooperation and integration of ADB's Southeast Asia Department. The Project complemented other ADB initiatives supporting the CT and is in line with ADB's Strategy 2020 which recognizes the need to promote sound environmentally sustainable economic growth and strengthen regional initiatives for adapting to climate change. It is in line with ADB's approach to Regional Cooperation and Integration Strategy, which includes cooperation in regional goods and collective action, and supports the partnership strategy of each CT3 country.[15] The Project is aligned with and approved under the GEF-4 Strategic Program, with a focus on Biodiversity Conservation (SP1.SP4), International Waters (IW-SP1/2 sustaining coastal and marine fish stocks), and Climate Change (CC-SPA enhancing resilience of coastal and marine resources).

B. Effectiveness

39. The Project is rated *effective*. Almost all the output targets specified in the DMF were achieved, and two of the three outcome indicators were achieved, while progress on the first is not measurable due to inadequate and general baseline indicators (para. 40 below). Substantial contributions towards the broader impact targets were made - while baseline impact targets are general, there have been substantial increases in mangrove, sea grass and coral coverage in targeted sites, fish biomass has increase 4-5 times in Tañon Strait, fish catches have increased in Taytay, and food security is being improved with successful testing of salt tolerant rice varieties. Impact and outcome indicators are the same for both the ADB and GEF DMFs. (see Appendix 2 DMF, and Appendix 3 Output achievements for details.).

40. Baseline data generally was not available when the project began and efforts to collect it in the form of resource and socioeconomic surveys were conducted after the project started, although in some cases not until contractors were engaged in 2015. This is not uncommon and indeed challenges the robustness of target indicators included in the DMF. More effort needs to be expended at design stage to identify and verify appropriate higher-level targets for which national data is available that can provide realistic baseline data and measurement of achievements. When necessary baseline data at the project and subproject levels is not available at design stage, more effort is needed during early implementation to determine appropriate and realistic indicators for such subprojects, and carry out surveys or other activities to collect such data for use in monitoring including for the MTR. In the case of monitoring and assessing

[15] ADB 2016. *Operational Plan for Regional Cooperation and Integration, 2016*-2020. ADB supports countries and subregions across the four dimensions of RCI—connectivity, competitiveness, regional public goods, and collective action. ADB's long-term corporate strategy to 2030 sets the course for ADB's efforts to respond effectively to the Asia and Pacific region's changing needs – it includes a regional cooperation strategy which outlines how an ADB-defined region or subregion can work together to foster economic growth and cooperation.

biodiversity targets, (see paras.65-74 below) data collection and assessment using the biodiversity tracking tools and METT assessment method was not done until just before the mid-term review in 2015. However, while inadequate data exists on baseline conditions for most pilot sites, it should be noted that as most Project activities did not get fully underway until 2015, measurement between mid-term and completion is perhaps not inappropriate.

41. The targets for outcome 1 of improved management of coastal and marine resources established in the SSME Priority Seascape within the Coral Triangle included increases in improved management of coral reefs, sea grass beds, reefs, sea grass beds, and mangrove forests from 10-20%, improved management effectiveness scores of MPAs (measured by GEF biodiversity tracking tool METT) of 5%, and ecosystem-based management frameworks established in five production seascapes and climate change adaptation frameworks demonstrated in at least three sites. While progress cannot be proven due to inadequate and non-specific baseline data on management of coral reefs and mangroves, seascapes such as Tañon Strait and Dumanquillas Bay in the Philippines have been declared protected areas.

42. The second outcome target was exceeded, with GEF biodiversity tracking tool METT scores in three MPAs in Indonesia, Malaysia and the Philippines increased by 21%, 31% and 37% respectively.

43. The third outcome target was also met with five EAFM plans prepared - two in Indonesia (Sangihe and Kwandang), one in Malaysia (Semporna), and two in Philippines (Dumanquillas and Taytay); and piloted-activities in line with CCA frameworks were demonstrated in three sites [Arakan (Indonesia), Marudu Bay (Malaysia), and Taytay (Philippines)] as planned. Appendix 7 elaborates on global environment benefits and the GEF tracking tool results.

44. Almost all envisaged Project outputs were achieved except the number of households benefitting from the sustainable livelihood and microenterprise models in Malaysia. For Output 1: (i) a draft national regulation was prepared to control coastal and marine resources management based on a study on size limitation and management of live grouper fish trade in Indonesia; and (ii) costing reports were developed as government references in updating NPOAs of Indonesia and Malaysia; the Philippines' government updated the NPOA; and (iii) 5,241 participants (45% women) from the government, academe and development agencies were trained on seascape, MPAs, ecosystem-based arrangement frameworks (EAFM), CCA and improving status of threatened species in CT3.

45. For Output 2, (i) five EAFM plans were prepared and implemented (Indonesia: two, Malaysia: one, Philippines: two); (ii) pilot-testing of CCA on PES scheme, salt-tolerant rice exhibit farming and solid waste management enterprises establishments are sustainably effective and innovative; and (iii) sustainable livelihood and microenterprise models benefitted 82 households out of the targeted 100 in Sabah (Malaysia) and this is expected to steadily increase beyond project completion. Out of 82 household beneficiaries, 33 households or 40% were women, exceeding the target by 15% or 15 households. Appendix 8 provides some summary details or project beneficiaries from subprojects. The GEF DMF included design and pilot testing of a tri-national MCS system within the SSME; this was not achieved but it was not realistic for the Project to pilot test such an MCS needing agreements across the three countries and funding for law enforcement. At the local level, however, the Project provided training for MCS and in the case of Palawan in the Philippines, materials to construct a fiberglass patrol boat. As set out in Appendix 3, destructive illegal fishing has been reduced under the Project in Zamboanga and Palawan in the Philippines through indirect methods with former illegal fishers switching to seaweed farming,

which has higher returns, while other seaweed farmers became more vigilant in deterring illegal fishers as dynamite fishing damaged their seaweed lines.

46. For Output 3: (i) quarterly progress reports submitted by PMC on time were informative; (ii) monitoring and evaluation system established by the international project coordinator became operational; and (iii) 41 knowledge products including books, manuals, brochures, and posters produced were utilized as training materials and disseminated to project stakeholders to increase CTI awareness and TA visibility. Ten technical reports were also completed and uploaded. The knowledge products developed by the project management consultant are assessed as good, but ADB and the PMC have insufficient technical skills to fully endorse the technical reports (as noted in the recommendations section, a peer review process would help). Most of these have been updated on the project website and the website of GEF International Water Learning and Exchange and Resource Network (Appendix 9 lists all knowledge products and technical reports produced by the Project which have been uploaded on the website). The GEF DMF highlighted the use of GEF Biodiversity tracking tools. The tracking tools were used in assessing the effectiveness of management of protected and conservation areas in selected pilot sites; the results of the tracking were fed into the Management Effectiveness Tracking Tool (METT), and were reported on in the mid-term review and final report of the PMC.

47. A stakeholder survey was conducted in December 2017, and summary survey results are presented in Appendix 5. There were 50 responses and most stakeholders rated the project at 4 out of 5 for the value of the project outputs for their own activities, with significant contribution towards achievement of the outcome 2 on sustainable livelihood activities (it might be noted, however, that survey results basically rated achievement of each component the same, with scores of 4-5). It might also be noted that the majority of stakeholders surveyed did not feel that they understood climate change adaptation well enough to rate that. The survey respondents cited notable achievements and recommended activities which had helped most, and suggested areas for improvements. Notable achievements included empowering the youth as important manpower in the protection and conservation of the environment through youth camping and youth engagement in protected area management plans to increase environmental awareness. Recommendations included greater involvement of local communities in design and implementation, and improved exchange of best practices among government implementers, community representatives and other stakeholders. These are summarized in Tables 5.6- 5.8 in the Appendix.

C. Efficiency

48. The Project is rated *efficient* under the ADB rating criteria, but this is at the lower end of the scale given the delays in implementation in the first two to three years; under the GEF rating it would be rated marginally efficient. As noted in paras.17-20, implementation activities were slow to get started, although this was partly due to the need to seek approval of subprojects and sites from the NCCs and the SCC. Field activities took longer to implement because of several factors, such as the length of time needed to get field data as required by approved methodologies, weather and sea conditions, accessibility of project sites, and security concerns in some areas (e.g. Balabac and Turtle Islands in the Philippines, and Sandakan and Kudat in Malaysia). The PMC contract was extended four times, eventually being closed 2.5 years after the initial closing date.

49. As noted above, there was a lag time in the implementation of initial activities which was due to the late endorsement of the 2013 budgets by the Philippines and Indonesia National Coordinating Committees (NCCs); these were submitted on 16 and 22 January 2013,

respectively, and partial approval of the budget from the Malaysian NCC only on 4 July 2013. In Indonesia, the PMU faced substantial difficulties in preparing CPs for subprojects, specifically in the preparation of ToRs, with the need for extended consultation with partner institutions on the ToR and costs of activities due to budget considerations. There was also the need to change previously considered project sites for subproject activities, due to technical considerations. In Indonesia, the TWG decided, on 26 March 2014, to choose Sangihe as the site for the establishment of a new marine protected area (MPA) and Kwandang Bay as the site for the pilot testing of the Ecosystem Approach to Fisheries Management (EAFM) for groupers. Nain Island in North Minahasa District, North Sulawesi Province as EAFM pilot site lacked grouper resources and live fish trade to justify the pilot testing of EAFM, thus had to be changed. The peace and order situation in Southern Philippines and in Semporna, Malaysia, affected implementation schedules of proposed subproject activities.

50. Long delays were reported in the approval of CPs submitted to ADB. As noted in para.19, the CP system had both positives and negatives including improved effectiveness in terms of diligence, consistency and transparency and in examining costs, avoiding wasted expenditure. The system also helped in building up mutual understanding on activities and actions among ADB, NCC and governments. However, the lengthy procedures contributed to delays. In some cases, the consultant needed some time for drafting CPs, costing and coordination with NCCs, local government and other NGOs. In others, ABD needed time for internal clearance such as patent of publication. The NCCs also needed to coordinate with governments and other authorities.

51. In Malaysia the resignation of the CTI focal person after changes in the national government delayed approval for subproject activities. The merger of the Ministry of Forestry and Ministry of Environment in Indonesia led to reorganization of the NCC, causing delays. Changes in consultants and deputy team leaders added to delays in Indonesia and Malaysia

52. Project activities accelerated from 2015 and efficiency has improved, and the originally designed activities were conducted within the project budget, albeit delayed. As discussed further below, impacts beyond the subproject scopes are now being expanded as evidenced by the youth voluntary CCA activities on mangrove reforestation, garbage collections, and knowledge products' designs for regional public awareness, shift from mangrove lumber to seaweed production, and collaboration with development partners and the JFPR funded ADB project (JFPR 9160-REG: Developing Sustainable Alternative Livelihoods in Coastal Fishing Communities in the Coral Triangle: Indonesia and Philippines).

53. Although Project implementation suffered delays and the PMC contract was extended, the outputs and results were delivered within the original budget. The PMC (and ADB) vetted CPs to ensure funds were not wasted. The PMC followed ADB requirements in seeking quotations from at least three suppliers and purchased from the supplier with lowest cost. Air tickets were purchased from budget airlines. The PMC regularly monitored the budget and expenses (using Excel) while utilizing CP system; and supervised expenditure by carefully checking claims from individual consultants and contractors including the deputy team leaders and the team leader.

D. Sustainability and Risks

54. The Project is rated *likely sustainable*. As noted above, the Project was designed to ensure sustainability by building on fundamental policy and institutional frameworks within the CT3 countries including the establishment of MPAs and the CTI Regional Secretariat, and use of

EAFM approaches to implement and monitor activities of the NPOAs and RPOA. While funding for the various activities that were initiated under this Project ceased at the end of 2017, a number of activities were implemented in partnership with local government agencies and NGOs which have committed to continue supporting the initiatives, and it is highly likely that they will be sustained in the future. Specific examples of these include the various school-based programs (e.g., mangrove reforestation in Taytay Bay, Palawan and solid waste management in the RAS villages in Indonesia) as well as community-based ecotourism in Kudat, Sabah. Other activities, such as MPA management in Taytay Bay and in Tatoareng Subdistrict, Indonesia, will be supported by the respective local governments in partnership with the local communities. Moreover, the official policies, regulations, and the legalization of LRFFT, EAFM, and MPAs in Indonesia and the Philippines, which were facilitated by the Project, include provisions calling for budgetary support to ensure the sustainability of project benefit.

55. While funding is important for the sustainability of project initiatives, the commitment of the people in the coastal communities is as important. It is anticipated that the heightened public awareness, which was generated by the Project through its knowledge management and communication campaigns, will continue to encourage local officials, village heads, and community advocates to continue to pursue the CMRM and environmental protection interventions that were initiated by the Project. A strong community-based constituency for CMRM has been built under the Project – for example, the students in Taytay and Dumanquillas have taken it upon themselves to expand their initial activities without additional funding from the project. In Taytay the Project partnered with the Floral Resort on Talacanen Island which established and maintains a coral plantation for guests. In Balabac in Palawan the Project partnered with the Balabac National High School (BNHS) in constructing a demonstration farm and refurbishing the school science library and laboratory. The demonstration farm serves as a central pilot facility for demonstration of livelihood technologies involving elevated two-story integrated pasture with goats, chickens and vermicast processing of waste (worms). The demonstration farm was fully handed over to the school in 2018 and is being used to teach senior high school students. In Malaysia members of the Alternative Kudat Community-based Ecotourism Collective (AKCC) are promoting their tourism products using their personal Facebook accounts and networks – the website of the Tajau Laut Guesthouse in Kota Kinabalu is an example of an active website. The village heads of the RAS (Raprap, Arakan, Sondaken) villages in Indonesia are looking for private partners who could continue collaborating with them on solid waste management. Follow up queries have indicated that Arakan village is a model for solid waste management. The health unit in Sondaken is still operational, while the Raprap High School continues its student training and involvement with the red cross. These villages have learned how to approach their local governments and leverage their activities with the government programs.

56. Requests to replicate Project initiatives in other areas are clear indications of project sustainability. The Village Secretary of Raprap in Indonesia, for instance, has been requested by neighboring villages and schools to teach them composting techniques. Officials from other villages and from provincial agencies have visited the RAS villages to observe the changes in the way the communities have been managing their solid waste and how the community-based health clinics have been providing ‘paid’ health services to regular patients. In Taytay, Palawan, the Mayor has expressed his commitment to continue supporting Project initiated activities in his town through legislation and budget provision. In addition to that, the WPU, which partnered with the Project in several activities, has budgeted funds for the replication of school-led activities in the southern towns of Palawan. On 12-13 December 2017, WPU continued the Environmental Youth Camp as a program of the Research and Development/Extension Department in collaboration with the College of Education and the College of Agriculture, Forestry, and Environmental

Sciences. The university also allotted an annual budget of Php 80,000 for the conduct of a yearly youth camp. The Philippine PMU ran a pilot assessment survey in Taytay and Dumanquillas involving the teachers, students, LGUs, POs and other stakeholders. Their responses indicate their appreciation of the Project activities and their sustainability. Another small survey, which was carried out in Taytay, Palawan in December 2017 as part of the GEF evaluation, showed overwhelming support for the project from all stakeholders.

57. GEF guidelines requires that four dimensions are covered on risks: (i) financial risks; (ii) institutional framework and governance risks; (iii) socio-political risks; and (iv) environmental risks.

(i) **Financial, Institutional and Governance Risks:** The greatest risk to the sustainability of CTI activities conducted under this Project and related projects and TAs is financing of regional and national agencies, such as the CTI Secretariat and NCCCs, and funding of regional programs and regional and national enforcement activities, including the MCS and MPAs. This is beyond the scope of this Project to have handled, but in discussions at SOM and other regional meetings, and during the stakeholder survey, the absence of the respective ministries of finance from National CTI Working Group meetings was recognised as posing a risk. The smaller countries in the Pacific for example, face difficulties in securing funds from their government to pay their contributions to the CTI Secretariat and for regional programs that do not have a direct impact at the national level. The risk is not so great in the Philippines, there being no immediate financial risks at the NCCC level as CTI activities have been built-in in the work and financial plans of the various agencies, particularly the Biodiversity Management Bureau and the Bureau of Fisheries and Aquatic Resources, the two NCCC co-chairs. However, overall there is a high risk of a fall in donor funding, with some apparent frustration expressed in recent SOM meetings at the lack of progress in finalising and implementing the RPOA and NPOAs, and lack of commitment from governments of funds for them. As noted above, however (see also Appendix 3) many individual local activities implemented by the Project have lesser financial risks due to local involvement and commitment.

(ii) **Socio-political risks:** Socio-political risks vary across the three countries and at local and national levels. For the Philippines, at the community level, there may be future risks if the local executives that supported CTI during its implementation are not re-elected or have completed their respective terms. Advocacy and awareness raising on CTI should therefore be a regular activity of NCCCs. The Biodiversity Management Bureau of the Philippines conducts regular regional rollouts to appraise stakeholder groups consisting of government, NGOs, and the business sector, on CTI. Security concerns in certain project sites (Balabac in Southern Palawan and Turtle Islands in Tawi-tawi province) may limit the delivery of services and impact monitoring if the peace and order situation becomes more volatile.

(iii) **Environmental risks.** Climate change impacts such as continued saltwater intrusion in low-lying areas can affect farmlands and jeopardize food supply. Sea level rise and shoreline erosion can also affect nesting areas of marine turtles in the CT3 countries. Marine debris and plastic pollution which are already serious issues in the region can affect overall ocean health if not addressed by the CT3.

E. Development Impact

58. The Project has made significant impacts on development, notably in improving the environment and generating global environment benefits, pilot testing sustainable livelihoods and improving institutional capacity and the policy and regulatory environment, as discussed below.

59. **Innovation.** The Project paid increased attention to community-based activities in all three countries from 2017 onwards. It included involving teachers and principals and high school students in environmental awareness programs and activities, including mangrove planting and waste management. **Youth engagement** was not part of the original design of the Project, however the Project drew on this hitherto untapped human resource in Indonesia and the Philippines. In the Philippines, the Project trained science teachers to improve technical capacity on coastal resource management and climate change adaptation, and assisted teacher involvement in school-led CRM and CCA projects. Some of the high school students trained and inspired by the project have gone on to take marine biology, fisheries, and related fields even after the Project. The Project helped organize a campus-based youth camp in collaboration with the Department of Education in Palawan. This showed that young people could be a potent force in community-based CMRM and environmental protection. What started as an ordinary youth camp led to school-based environment and CCA project proposals, then to actual field implementation, with high school students at the forefront, and finally, to excellent results in mangrove reforestation, solid waste management, and public awareness. With minimal investment in meetings and material support, these young people planted large numbers of mangrove saplings and trees and encouraged their fellow students, teachers, parents, and, in some cases, even their local governments to follow suit. They used various means to disseminate their message for protection and care for the environment, such as student activities in school, parent-teacher meetings, and tree planting activities in the forest. They also painted art work on their school walls and used the performing arts (such as dance) to call the attention of communities to the need for environmental protection and resource conservation. They employed social media to spread and share their newfound advocacies.

60. The young people in South Minahasa District in Indonesia showed the same vibrant enthusiasm when they organized youth groups to man their solid waste collection stations daily and carry out Friday clean-up campaigns. The stakeholder survey referred to in para.46 above, highlighted the value of this untapped youth resource. Follow up inquiries on sustainability of project activities have cited this, particularly in the Philippines. Involving schools and youth in environmental projects and community-based projects is very effective and sustainable The Project supported the STARBOOKS program in the Philippines with the Department of Science and Technology by supplying partner schools in Palawan with computers and a digital data base of books on climate change and the environment.

61. **Sustainable livelihood activities.** As noted above under effectiveness and para.55 on sustainability (see also Appendix 3) sustainable livelihoods activities included improvements in farming, mariculture and mangrove replanting, and the promotion of ecotourism. Salt tolerant rice varieties were introduced in the Philippines as an adaptation to climate change where rice paddies are becoming flooded or affected by salt water intrusion. In the Philippines, new salt tolerant varieties were sourced from IRRI in Los Banos. Sustainable livelihood activities have been introduced in all three countries under the Project including handicrafts and ecotourism activities in Kudat District in Sabah, handicrafts production on Turtle Island in Zamboanga, and seaweed and abalone culture in Palawan. In the Philippines, community members trained by the Project have moved giant clams to MPAs to protect them from poaching, and have established coral gardens in the MPAs to generate payments (PES) from tourists snorkeling in the MPAs. Waste management and plastic recycling have also been encouraged.

62. Most of these activities have been small, but are being replicated as knowledge and experience spreads. EAFM training was provided in all three countries and included impacts of land-based pollution, including plastic and other waste entering the marine ecosystem from rivers.

63. **Knowledge Management.** The power of knowledge management (KM) was another project innovation that generated excellent results. The KM activities such as youth learning camps, peer-to-peer meetings, and knowledge sharing exercises proved to be highly effective in eliciting ideas from stakeholders on their perceived needs, problems, and solutions related to CRM and CCA. The KM stakeholders did not only play the role of participants, they were also active partners in the generation of ideas, problem solving and action planning, as well as in actual CRM and CCA implementation. KM products like publications, posters, social media, and videos enabled the dissemination of technical information to various audiences and served as effective channels of their advocacies. The cross-visits, peer-to-peer meetings, and knowledge sharing were particularly effective in changing perspectives, mindsets, and attitudes. The study tour of the village leaders from Raprap, Arakan, and Sondaken, Indonesia to the Philippines in August 2017 is a case in point.

64. **Partnerships.** The Project had a substantial impact on partnerships. As noted in paras. 22-25 above, the Project was very proactive in developing partnerships with government agencies at both national and local levels, and with other NGOs and development partners to attain synergy in the use of resources and to avoid duplication of effort.

65. **Global Environment Benefits and GEF biodiversity tracking tools.** The Project was expected to provide significant global environmental benefits supporting the conservation of globally significant marine biodiversity, habitats, and ecosystem services, increasing the conservation area coverage of mangrove forests, sea grass beds and coral reefs in the Sulu-Suluwesi Marine Ecosystem. The project has delivered in all of these areas in a measurable way with mangrove forest protected in all CT3 countries along with coral reefs and sea grass beds.

66. Global benefits are expected to result from the replication of biodiversity conservation models tested in the project for MPA protection sustainable livelihoods and local deterrents to reduce illegal fishing. Protection of giant clams in MPAs and Payment for Ecosystem Services (PES) models with coral gardens are considered innovative. Successful pilot projects were implemented including seaweed farming, establishment of MPAs, and ecotourism. More than 400 people have been trained in climate change adaptation techniques.

67. In each pilot site in each of the three countries, the project established ecosystem-based management for biodiversity conservation (Objective 1: Catalyzing Sustainability of Protected Areas) and for food security as production seascapes (Objective 2: Mainstreaming Biodiversity Conservation in Production Seascapes). The Project's approach involved considerable ground work at the community level to ensure full support in selected communities in adapting conservation measures including the establishment of three new MPAs. The adoption of sustainable livelihood activities near the MPAs can ensure that the coral reefs are protected - sanctuary guards and/or wardens are typically posted in the sanctuary which often surrounds an island.

68. Prior to the mid-term review (MTR), the PMC, together with on-site Project staff and stakeholders, assessed the effectiveness of management of protected and conservation areas in five key pilot sites using the management effectiveness tracking tool (METT) scoring method, which addresses Objectives 1 and 2 of the Biodiversity Focal Area of GEF. Data was collected using biodiversity tracking tool templates (which are attached as an Annex to Appendix 7), which

provided the basis for the METT scores. These were updated during the last year of the project. Due to changes in the sites for the implementation under the Project, not all sites have a baseline assessment.

69. The comparison of management effectiveness, as gauged through midterm and end-of project GEF scores in the five project sites, has shown improvements as an outcome of the project interventions. These are briefly discussed below and elaborated in Appendix 7 and Appendix Table 7.1). The METT scores demonstrate an increase of 20% for Kwandang Bay and 75% for Tatoaerang in Indonesia, 59% for Tun Mustapha Park in Malaysia, and 17% for Dumanquillas Bay and 19% in Tañon Strait in the Philippines. This is encouraging since it indicates that the conservation approach adopted by the project was effective.

70. Appendix 7 includes assessment of changes in threats as a result of Project activities, with a large reduction in the threat level of 61% in Tañon Strait and 30% in Dumanquillas Bay in the Philippines, although less in other project sites.

71. Kwandang Bay in Indonesia was selected as the site for the application of EAFM. The project had helped in formulating policy on management of coral reef fishes, particularly groupers, and in the development of a strategic plan for live fish trade. An EAFM Plan with guidelines were prepared for Kwandang Bay. As shown in Appendix 7, the management effectiveness score has increased as a result of the draft EAFM Plan and draft provincial and national decrees, the preparation of which was supported by the Project. Other sites include Tatoareng Subdistrict in North Sulawesi, which was identified by the Indonesia NCC as the site for the establishment of an MPA for biodiversity conservation under the CTI-CFF. Although the threats in the area remain at about the same level, management effectiveness has increased significantly from 12% to 21% with the technical support of the Project in planning, capacity building, and governance.

72. The Tun Mustapha Park (TMP) in Malaysia was gazetted by the Government of Sabah in May 2016 after the decision of the State, in 2003, to establish a marine park in North Borneo. The legal establishment of TMP contributed to the increase in the METT score - the Project facilitated the application of management interventions for the objectives of the TMP to be achieved. It also developed a livelihood project involving low-impact coastal and marine ecotourism capitalizing on the rich biodiversity in five fishing communities in Kudat. Training of Sabah Park rangers on the monitoring of indicators, payment for ecosystem services (PES), and appropriate conduct of MCS (monitoring, control and surveillance) to minimize IUUF (illegal, unreported and unregulated fishing) has improved the capacity of Sabah Parks personnel in TMP management. The training on EAFM for fisheries officers from Kudat, Pitas, and Marudu and Sabah Parks rangers also built the capacity of the resource managers. The Semporna PCA (Priority Conservation Area) in Malaysia is an important site for the cage culture of groupers from the wild. Preparations for the EAFM of groupers in the live reef food fish trade began with the training of cage operators, fishers, traders, and tour guides. A baseline study on the status of coral reefs and abundance of groupers in the coral reefs was also conducted an integrated management plan was drafted after midterm.

73. Dumanquillas Bay in the Philippines was declared a site for protection under the National Integrated Protected Areas System (NIPAS). The Project contributed to the improvement of bay management by facilitating the agreement of the six municipalities along the bay to jointly manage its biodiversity and marine resources. The municipal resource managers and the Protected Areas Management Board (PAMB), with technical support from the Project, conducted surveys of the ecosystem, resources, resource uses and users, including an assessment of the stock of small pelagic fishes. A General Management Plan (GMP) for Dumanquillas Bay was prepared and approved by the PAMB, and the EAFM Plan for sardines was drafted based on the studies and

stakeholder consultations. Tañon Strait in the Philippines is another site under NIPAS. The Project, in partnership with Oceana Philippines), provided technical support in the formulation of the GMP for the Tañon Strait Protected Seascape. Management effectiveness has increased significantly with the implementation of the Tañon Strait Management Plan.

74. The Turtle Islands Wildlife Sanctuary (TIWS) is one of the oldest MPAs in the Philippines, established for the conservation of threatened sea turtles. It is one of the sites under NIPAS and is part of the Turtle Islands Heritage Protected Area (TIHPA), the first transboundary marine park in the SSME. The Project, with co-financing from GIZ, collaborated with the TCSP, a national NGO, in the assessment of the ecological status of TIWS, preparation of hazard maps, and socioeconomic profiling of communities. Training was provided for wardens (rat eradication) high school students (waste management and organic vegetable farming), and women's groups (wallet and keychain making from plastic debris). The assessment results provided the basis for the formulation of additional MPA management and CCA interventions. These management interventions resulted in the increase of management effectiveness from 51% to 56%.

75. **Theory of Change and Assessment of Progress to Impact.** ADB project approval documentation includes a Design and Monitoring Framework (DMF) which sets out the key impact, outcome, and outputs that the project is expected to achieve, together with targets. For this Project it provided the basis for the M&E system that monitored progressive Project performance. ADB does not use a Theory of Change (ToC) approach in developing its projects, although a ToC is implicit within the problem and solution tree analysis. Nevertheless, in line with GEF requirements, a ToC has been retroactively determined and is included as Appendix 6.

76. The GEF guidelines require that evidence of progress towards impacts should be assessed, and thus requires that intermediate attainments should be assessed. Appendix 6 includes a revised DMF that sets out targets for anticipated outputs, outcomes and impacts, and adds some intermediate targets which need to be met to achieve the anticipated Project impact. Analysis of Appendix 2 and Appendix 3 show that output targets have been or are being achieved, such as training programs and policy and regulatory changes under output 1 which are contributing to achieving the expected impact of improved resilience of coastal and marine ecosystems and human communities. Under output 2, MPAs have been established, community development and other pilot projects have been developed and tested as models for replication, and public-private sector partnerships established that are proving sustainable - these will contribute to achievement of the anticipated impact of improved food security and livelihoods, and to implementation of climate change adaptation measures that will increase resilience of villages. Under output 3, project knowledge and lessons have been captured and disseminated through national, regional and global networks - these will enhance sustainability and replication of coastal and marine ecosystems and human livelihoods, contributing to achieving the expected impact of improved resilience.

F. Performance of the Executing Agencies

77. Performance of the IAs is rated satisfactory although under the GEF rating system this is probably marginally satisfactory as performance was slow and overly bureaucratic in the early years (ADB was the executing agency). The NCC approval process in particular, and particularly in Malaysia, significantly slowed implementation progress. It was apparent from national inception workshops that ADB processes and procedures were not sufficiently understood by the IAs and other stakeholders, resulting in initial lack of clarity of respective roles (such as consultant selection). Lack of involvement of the IAs and stakeholders in initial Project design and activities also led to subsequent implementation delays as the IAs and stakeholders sometimes had

different views on what sites should have been selected and which subproject activities should be followed.

G. Performance of the Project Management Consultant (PMC)

78. The performance of the PMC is rated *satisfactory*, with a dedicated approach to ensure success of the project despite the initial delays and the many problems that arose, including consultant turnover, delays in NCC and government responses including changes in agenda and direction in Malaysia, and delays and changes in site selection. Coordination problems arose in Malaysia following the replacement of the deputy team leader with the Sabah Fisheries Officer, the Project needing a full time DTL not part time; ADB helped resolve this in 2017, with an Aide Memoire clearly delineating roles and responsibilities of staff and subcontractors. The PMC remained flexible and responsive to the changes and delays and delivered project activities within budget. They greatly exceeded the expected number of knowledge products and played a significant role in dissemination and knowledge events. The PMC Final Report is of high quality.

H. Performance of Partner Cofinanciers

79. ADB implemented GEF's contribution to the Project. The JFPR parallel project is being reported on separately by ADB. USAID and the Australian Government are reporting independently on their projects and it is not the role of this TER to assess this.

I. Performance of the Asian Development Bank and GEF

80. ADB performance is rated *satisfactory*. As discussed in section G above on monitoring and reporting, ADB and the PMC established a robust PPMS system incorporating M&E reporting through quarterly progress reports. ADB conducted regular monitoring of Project activities including site visits and a full MTR mission in 2015. As a consequence of the MTR, the work plan for December 2015- August 2017 was reworked. ADB was flexible and responsive to requests from the PMC and the NCCs although views differ on its timeliness in approving CPs and other budget requests (para.19). The approval process for utilizing the Provisional Sum item in the PMC contract was time consuming, although had some positives. To enable activities to be completed, ADB approved a one year no cost PMC extension. ADB submitted annual PIRs to GEF on time. GEF performance, including Washington and the GEF team in SDCC is rated *satisfactory.* There was little feedback from GEF on PIRs but this might be because no concerns on high risks were raised in the PIRs that required action, and GEF were not specifically requested to comment on anything in particular. During processing of the RETA, GEF had shown flexibility, particularly given the delays in securing additional funds to leverage their contribution to the Project (para.8).

J. Overall Assessment

81. The Project is rated *successful*. The project is rated *highly relevant*, being designed to help address risks confronting the conservation of the rich biodiversity in the Coral Triangle from climate change and human activities. The Project design took account of differing institutional and stakeholder capacities, focusing on training, institutional capacity building, awareness raising and developing and disseminating knowledge products. It is rated *effective* in achieving its outputs and two of the three outcome indicators (one could not be measured) and contributing to impact indicators. It is rated *efficient*, but marginally so due largely to slow project start up and implementation delays; despite the delays, Project outputs were delivered within budget with substantial under expenditure. It is rated *likely sustainable* based on ownership and commitment of stakeholders and beneficiaries and commitment of funds from involved agencies and the

private sector. The Project has made significant impacts on development, notably on improving the environment and generating global environment benefits, pilot testing sustainable livelihoods and improving institutional capacity and the policy and regulatory environment.

Overall Ratings

Criteria	Rating
Relevance	Highly Relevant
Effectiveness	Effective
Efficiency	Efficient
Sustainability	Likely sustainable
Overall Assessment	Successful
Development impact	Satisfactory
Borrower and executing agency	Satisfactory
Performance of ADB	Satisfactory

Source: Asian Development Bank. (ADB)

IV. ISSUES, LESSONS, AND RECOMMENDATIONS

A. Issues and Lessons

82. **Project Implementation period**: The Project scope and geographical coverage was wide with numerous stakeholders and partner institutions involved, covering three countries. More than 100 community-based activities were implemented, and various external experts engaged. Considering the complex nature of natural resource management projects, the original project implementation period should have been longer (perhaps six years).

83. **Project Design and Stakeholder Involvement**. The key stakeholders need to be involved in detailed Project design, including selection of subprojects and sites. It was apparent from national inception workshops that ADB processes and procedures were not sufficiently understood by the IAs, the NCCs and other stakeholders, resulting in initial lack of clarity of respective roles (such as consultant selection). ADB should provide clearer guidance to IAs on procedures and implementation methods. Lack of involvement in Project design also led to requests for changes in sites and subproject activities, although these had been included in the Project design and approval documents. Security issues were a concern in some proposed sites which could have been avoided.

84. **Project Implementation Arrangements.** Careful attention is needed to Project implementation processes, and in particular approval processes. In this Project, the decisions of the IAs had to be approved by the NCCs, and in the case of Malaysia by the SCC and then the NCC. The NCCs are inter-agency committees and were not always easy to convene, greatly delaying implementation. ADB then needed time to give approval also.

85. **Community Involvement**. Institutional support and community engagement are key in generating participation of local communities in coastal and marine resource management, climate change adaptation and sustainable financing. This needs to include local chief executives and village chiefs as well as the communities, together with private resort owners, boat owners/operators, and other private associations. One of the main successes of the Project has been its ability to reach communities and schools and develop successful projects with very little investment.

86. **Partnerships.** The Project was very proactive in developing partnerships with government agencies at both national and local levels, and with NGOs, development partners and the private

sector to attain synergy in the use of resources and to avoid duplication of effort. The Project linked well with ongoing GIZ and NGO activities in the same areas, but more formal partnerships with GIZ, TNC, CI and others could have improved coordination and sustainability of outcomes, particularly in livelihoods activities. Many of these partnerships are continuing, and some with the private sector are developing further, increasing the likelihood of sustainability.

87. **Youth engagement** was not part of the original design of the Project, however the Project drew on this hitherto untapped human resource in the Philippines and Indonesia (paras.59-60). Involving schools and youth in environmental projects and community-based projects was very effective and sustainable This shows that young people can be a potent force in community-based CMRM and environmental protection.

88. The power of **knowledge management** (KM) was another project innovation that generated excellent results. The KM stakeholders did not only play the role of participants, they were also active partners in the generation of ideas, problem solving and action planning, as well as in actual CRM and CCA implementation. KM products like publications, posters, social media, and videos enabled the dissemination of technical information to various audiences and served as effective channels of their advocacies.

B. Recommendations

89. **Peer Review Process**. For a Project such as this, with a substantial number of technical reports and knowledge publications that are beyond the capacity and role of ADB as the financier to review, ADB could help establish a separate peer review process whereby comments are sought from academics, technicians and other peers to enhance the value and credibility of the reports, adding to the impact and value of the Project.

90. **CT3 countries** should adopt policy papers and study reports produced under the Project in their coastal resources management plans.

91. **CT3 countries** and ADB should disseminate and use knowledge products to deepen awareness of the coastal and marine environment.

92. **CT3 countries** should continue institutional, personnel and budgetary support to national coordinating committees on CTI and CTI-RS to implement activities and attain NPOAs and RPOA by the governments.

93. **Future monitoring**. The GEF tracking tools and the METT assessment system is in place. Action should be taken by the CT3 countries and partners, including ADB, to continue to monitor the impact of this Project and other support program activities. Such an impact assessment might best take place at least three years after Project completion to determine the longer-term impact and sustainability of the sustainable resource management efforts.

APPENDIX 1: EVALUATION TERMS OF REFERENCE AND METHODOLOGY

A. Terms of Reference

Objective and Purpose of the Evaluation.
The Asian Development Bank executed a Regional Technical Assistance (TA 7813-REG) on Coastal and Marine Resources Management in the Coral Triangle-Southeast Asia. The RETA was funded by ADB, the Global Environment Facility (GEF) and other co-financiers. The Terms of Reference (TOR) provides background and requirements for the preparation of GEF's Terminal Evaluation Report by a Senior Evaluation Specialist (International Consultant).

The TA responds to ADB's Regional Integration and Cooperation Strategy under its 4th Pillar: Cooperation in Regional Public Goods through (i) coordinated actions to supply regional public goods, such as clean air, environmental protection, control of communicable diseases, and management of natural disasters; and (ii) dissemination of analysis and research findings in the public domain through publications, workshops, and shared standards.

The objective of the TA is to increase resilience of coastal and marine ecosystems and human communities in the 3 of the 6 Coral Triangle Countries (CT3). The outcome will be improved management of coastal and marine resources established in the Sulu–Sulawesi Marine Ecoregion Priority Seascape within the Coral Triangle.

The TA impact and outcome will be attained through three outputs: (i) policy and institutional frameworks for sustainable coastal and marine ecosystem management improved, (ii) ecosystem-based approach to coastal and marine resources management pilot tested, and (iii) effective project management established by ADB and the CT3 governments.

Scope of Work

The RETA 7813 closed in December 2017 and ADB has prepared a Technical Assistance Completion Report (TCR) in July 2018 in line with ADB's Project Administration Instructions (PAI No. 6.08, revised February 2011). In addition to the TCR, the GEF requires complementary evaluation of the RETA in the form of a Terminal Evaluation Report (TER) consistent with the GEF Monitoring and Evaluation Policy and associated guidelines. The TER will be guided by ADB's Guidance Note on Terminal Evaluation Reports for GEF co-financed projects while keeping consistency with the TCR. The Specialist will be responsible for preparing the GEF-compliant TER.

Detailed Tasks and/or Expected Output

In completing the deliverables, the Senior Evaluation Specialist (International Consultant) will undertake the following:

1. Review ADB Project Administration Instructions for TCRs and GEF/ADB requirements for Terminal Evaluations of GEF co-financed projects (to be provided at inception).
2. Develop a work plan with milestones for the GEF TER to be submitted within 5 business days of startup of the assignment.
3. Review of the ADB TCR, Technical Assistance Report; Consultants Reports for the CTI-SEA, and the GEF CEO Endorsement Document for the GEF cofinancing including relevant GEF Tracking Tools, and all other relevant project documentation and background information, including, but not limited to project preparation files, technical

and progress reports , back to office reports, scientific articles, monitoring and evaluation reports, performance assessments, various other communications and media outputs relevant to the RETA.

4. Develop a relevant set of questionnaires for different target subjects, and conduct interviews or focus group discussions with: i) relevant ADB staff in the Southeast Asia Department (SERD) and Sustainable Development and Climate Change Department (SDCC) regarding project design, implementation and performance, ii) the Project Management Consultant, iii) various individual consultants engaged in the life of the project iv) key personnel within executing and implementing agencies engaged in each country v) relevant non-government organizations and community stakeholders vi) representatives from the CTI-CFF Development Partners' groups vii) evaluation specialist engaged under RETA 7753 viii) key CT3 members / leaders of CTI-CFF National Coordinating Committees (NCCs), thematic and cross-cutting working groups ix) lead consultants for the ongoing CTI-CFF Regional Plan of Action (RPOA) Review, and x) Chief, ADB Water Sector Group.

   To the extent possible, consultations will be held via email, voice over internet and/or telephone. If needed, short duration visits to the participating countries will be supported, including travel to ADB Headquarters in Manila.

5. Review/update the GEF Biodiversity Tracking Tool (BDTT) and other relevant tracking tools and integrate data into the Final Report as appropriate.

6. The TER for the GEF, will include the following information: i) General background on the GEF funding ii) Implementation arrangements for the GEF funded activities iii) Assessment of the relevance iv) Assessment and likelihood of achieving the outputs, and outcomes and impacts. v) Assessment of progress towards impacts; vi) Global Environmental Benefits achieved from the GEF, focusing on climate change mitigation and biodiversity conservation impacts vii) Assessment of the catalytic role of the GEF viii) Assessment of sustainability ix) Assessment of the effectiveness of the suitability and effectiveness of the M&E framework, and x) Efficacy of institutional arrangements.

B. Summary Approach and Methodology

The TER follows the 2013 ADB Guidelines on the preparation of GEF TERs, which take into account the GEF 2011 evaluation guidelines and the GEF 2010 Monitoring and Evaluation Policy. The TER examines the relevance, effectiveness, efficiency, sustainability and impact of the program, following the methodology for performance assessment set out in ADB's 2016 Guidelines for Project Performance Evaluation.

This evaluation report uses the ADB PCR template, as amended in the 2013 Guidelines for TER for GEF full sized projects. Thus, while following ADB's PCR template, the TER gives additional attention to GEF requirements relating to (i) impacts (theory of change, progress to impact, catalytic role and global environment benefits); (ii) risks (financial, socio-political, institutional framework and governance, and environment risks); and (iii) the Monitoring and Evaluation system.

The TER was prepared by an independent evaluation specialist consultant in December 2018 - January 2019. Key documents were reviewed, including ADB and GEF approval documents, ADB

regular implementation supervision reports, quarterly progress reports (QPRs) and ADB's annual Project Implementation Reports (PIR), and the Final Report of the PMC. Key informant interviews with people associated with the project were conducted, including ADB staff and the PMC. The evaluation specialist was an observer at the CTI Senior Officials Meeting SOM-14 meeting in Manila in December 2018, which provided a valuable opportunity for discussions with key government participants and partners; this facilitated follow up by email and skype. Some follow up email interviews were conducted with select beneficiaries, notably in the Philippines where sustainability prospects and concerns were pursued further. The evaluation also drew on a January 2018 assessment of stakeholder responses to a questionnaire on the relevance and effectiveness of the RETA, which had been distributed during the SOM-13 meeting, for which 50 responses had been received.

APPENDIX 2: DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators	Achievements and Comments
Impact	By 2020 from 2010 baseline:	Baselines not specifically prepared as anticipated at design (a common weakness in DMFs).
Increased resilience of coastal and marine ecosystems and human communities in the CT3	10% increase in the area of mangrove forests, sea grass beds, and live coral cover in the SSME	10% increase in mangrove forests in Taytay as 40 mangrove cutters switched to seaweed farming. Mangroves protected in Palawan, Sulawesi and Sabah has a 23% increase in coral cover documented in Taytay by the project
	10% increase in the biomass of coral reef fish (e.g., groupers and wrasses) in MPAs in the SSME	Fish biomass increase 4-5 times in 8 years has been documented in Tañon Strait area protected with Project support
	Improved food security of coastal communities in the SSME	Increase in fish catches reported \in Taytay from 1 to 4 kg per trip due to seaweed culture attracting rabbit fish and reduction in illegal fishing in seaweed growing areas due to increased vigilance by famers
		Salt tolerant rice resistant to climate change effects of coastal flooding pilot tested.
Outcome	By 2015:	
Improved management of coastal and marine resources established in the SSME Priority Seascape within the Coral Triangle	10%–20% of coral reefs, sea grass beds, reefs, sea grass beds, and mangrove forests with management designation	Not possible to specifically measure due to non-specific and inadequate base line data, but progress seemingly made. Tañon Bay Seascape and Dumanquillas Bay Seascape declared protected areas.
	3 MPAs within the SSME have SSME have management effectiveness scores improved by 5%	Achieved. METT scores in 3 MPAs increased by 21%, 31% and 37% in Indonesia, Malaysia and the Philippines respectively.
	Ecosystem-based management frameworks established in 5 production seascapes and climate change adaptation frameworks demonstrated in at least 3 sites	Achieved 5 EAFM plans were prepared INO (Sangihe, Kwandang), Semporna Bay (MAL) and Dumanquillas Bay and Taytay (PHI). CCA frameworks were demonstrated in Arakan (INO), Marudu Bay (MAL) and Taytay (PHI)
Output 1:	*The 4 sub-outputs identified in the DMF and shown in column 2, do not completely align with the text of the ADB* RETA approval document and have been added to and adjusted as appropriate for consistency.	

Policy and institutional frameworks for sustainable coastal & marine resources management improved **[GEF DMF**: Strengthening national and local institutions for sustainable coastal and marine ecosystem management]	Policy, legal, and regulatory frameworks for institutionalizing effective coastal and marine resources management established. [**GEF DMF**: Inter-agency coordination mechanisms for ecosystem-based management of coastal and marine resources established (Indonesia, Malaysia, and the Philippines)	Policies and regulations were largely in place prior to the Project commencement. In Indonesia assistance provided in formulating policy on management of coral reef fishes, particularly groupers, and development of strategic plan for live fish trade. Malaysia – pilot implementation of the existing integrated coastal zone management (ICZM) policy in Sabah. Philippines – support to protected area management boards overseeing the national integrated protected areas system, and to Tañon Strait Protected Seascape and Dumanquillas Protected Landscape and Seascape. CTI-CFF Regional Secretariat supported by the project
	National operational guidelines for ecosystem-based management of coastal and marine resources adopted [**GEF DMF:** same]	Achieved. Partly developed at Project commencement but substantial contributions made in all 3 countries as summarized in Appendix 3 (live grouper fish trade in Indonesia; inputs for the preparation of the Integrated Coastal Zone Management (ICZM) Plan for Marudu Bay, Malaysia; the General Management Plan (GMP) for the Tañon Strait Protected Landscape and the Dumanquillas Bay Protected Landscape and Seascape in the Philippines).
	Scaled-up investment program for coastal and marine resources management (including coral reef rehabilitation and management) submitted for governments' consideration by 2012 [**GEF DMF**: National Coral Reef Management Conservation Program in Indonesia. System for the evaluation of management effectiveness of MPAs in the SSME established (Philippines)]	Partly achieved. This does not completely align with the RETA text which refers to building institutional capacity in planning investments, promoting sustainable financing of resource management, and raising awareness of the need for coastal and marine resources management, all of which were largely achieved. It also covered strengthening staff capacity to understand the impacts of climate change, developing an ability to identify and implement appropriate adaptation measures. COREMAP 3 Management Effectiveness Tool developed and in place
	A minimum of 200 government staff, at least 30% of whom are women,	Achieved. Design/implementation of a training program on coastal resources

	trained on ecosystem-based coastal and marine resources management [**GEF DMF**: Comprehensive training plan prepared and conducted for 200–300 staff of government agencies, including a minimum of 40% women staff from national to local and personnel of private sector and NGOs (Indonesia, Malaysia, and the Philippines)]	management (CRM) and climate change adaptation (CCA) for national and local government personnel, NGOs, and the private sector. **Indonesia**: 947 persons trained; average of 35% women **Malaysia**: 484 persons trained; average of 26.6% women **Philippines**: 3,326 persons trained; average of 36% women. The component also included mmentoring government staff in knowledge management. A CTI Project Mapping Tool was developed and a CTI-SEA blog site and Facebook page established.
Output 2:		
Ecosystem-based approach to coastal and marine resources management pilot-tested **[GEF DMF:** Strengthening of ecosystem-based approach to marine resources management]	5 local ecosystem-based management plans pilot tested [**GEF DMF**: 5 plans approved by local governments]	Achieved. An ecosystem approach to fisheries management was developed for Kwandang Bay in Indonesia (groupers in particular); an EAFM developed for Semporna in Malaysia; plans updated in Dumanquillas Bay, and Tañon Strait in the Philippines and training provided to LGYs and the Protected Area Management Board in implementation. A tri-national monitoring, control, and surveillance system to address illegal, unreported, and unregulated fishing in the SSME was developed and pilot-tested. A resolution promoting sustainable live reef food fish trade (LRFFT) in the region was signed at the LRFFT Intergovernmental Forum in Thailand in February 2013.
	MPA management plan with a monitoring, control, and surveillance system for transboundary network of MPAs pilot-tested [**GEF DMF**: 3 MPAs, comprising 1 transboundary NMPA, established across CT3 with management plan implemented. Sustainable financing plan for 3 MPAs developed and experiences shared at national and regional level]	Achieved. MPA established in Sangihet Indonesia; MPA training for Sabah Park Rangers in Malaysia; law enforcement training in the Philippines, with revised fisheries code. Adoption by Dumanquillas Bay municipal governance of fisheries ordinance. Regional agreement among the CT3 to include the following areas in a transboundary MPA network (MPAN) for marine turtles: Sebatik in Indonesia, Turtle Islands Park (TIP) in Malaysia, and Balabac and Turtle Islands Wildlife Sanctuary (TIWS) in the Philippines; conduct of a Tri-national Workshop on the

		Establishment of a Sea Turtle MPAN and MCS in the SSME at the CTI Center in Manado, Indonesia on 12-14 June 2017.
	Climate change adaptation measures pilot-tested in 3 coastal communities [**GEF DMF**: Climate change vulnerability assessments and adaptation measures for both men and women to increase the resilience of coastal and marine resources demonstrated in the CT3 at a local scale]	Achieved. Climate VAs in North Sulawesi Indonesia and Taytay Philippines Oceangraphic study on impacts of climate change on turtles in Malaysia. Pilot demonstration of CCA activities Philippines including farming of salt-tolerant rice varieties, mangrove planting, mariculture.
	Sustainable livelihood and microenterprise models for 100–250 household beneficiaries, with at least 15% micro industries and/or enterprises headed by women, established in 4–5 coastal villages in Sabah, Malaysia {**GEF DMF**: Included this as a **separate output 3**, together with PPP from ADB DMF output 3 (below).	Achieved. 82 households were beneficiaries of livelihood microenterprises established by the project. While this is 82% of the lower range of the DMF target, there are 33 women-led household beneficiaries, equivalent to 220% of the lower range of the DMF target. The RETA also established livelihood models in six villages, of which five are on the coast.
	[**GEF DMF**: A tri-national MCS system designed and pilot-tested within the SSME]	Not realistic for RETA to pilot test MCS
From output 3	Public–private partnerships in implementation of at least 3 activities established in the CT3 [**GEF DMF** – shown as separate output with livelihoods]	Partly achieved. Some progress has been, particularly in the Philippines (tourism master plan; willingness to pay survey; PES - payment for ecosystem services, private resort maintaining its own MPA with artificial reefs). In Indonesia a partnership for purchase of waste plastics collected by the three coastal villages; activities were late to start in Malaysia, with a plan developed for community-based tourism linked with tourism operators.
Output 3:		
Effective project management established by ADB and the CT3 governments (**GEF – DMF** Shows this as Output 4, Output 3 being "Supporting mechanisms for sustainable livelihoods in coastal communities	Monitoring and evaluation system applied [**GEF DMF**: M&E system developed for CTI applied in 3 countries]	Achieved. Targets included establishment of a project management system which included establishment of a TA coordination unit in ADB, a regional project management office in the Manila office of the PMC, and PMUs in each country. A Project performance management system (PPMS) developed and maintained in the RPMO. The PMC prepared inception report, 19 quarterly progress reports (QPRs), and draft final and final reports. ADB conducted review

sustainable", reported on above)		missions, including a midterm review (MTR) mission. Ecological and socioeconomic baselines in the CT3 reviewed. GEF tracking tools used to assess the effectiveness of MPA management in production seascapes in the CT3. MoU signed Kudat in Sabah, Taytay in Palawan, Manado. Informal collaboration with GIZ in the Philippines. Meetings conducted to coordinate closely with NCCs and CTI Regional Secretariat, and development partners.
	Two knowledge products produced per year and linked to the GEF International Waters Learning Exchange and Resource Network and national, regional, and global knowledge networks [**GEF DMF**: Project knowledge and lessons captured and disseminated through national, regional, and global knowledge networks, including GEF IW: LEARN]	Achieved - targets exceeded (41 knowledge products produced); The RETA published and/or uploaded all the KM products produced by the project, including technical and information materials. Some of the materials are on VA/CCA and biophysical studies, which are inputs for MPA and EAFM planning, as required by government agencies for decision making. Some are information materials for researchers and law enforcers, such as the following: (i) The Grouper Fishes of Kwandang Bay (Indonesia); (ii) Climate Change and Vulnerability Assessment of Turtle Islands Park and Tun Mustapha Park (Malaysia); and (iii) the Filipino version of selected sections of the Philippine Fisheries Code. Video presentations were prepared for all 3 countries.
	Public–private partnerships in implementation of at least 3 activities established in the CT3	Shown under output 2
	GEF Biodiversity Tracking Tools	Effectiveness of management of protected and conservation areas in selected pilot sites was assessed using the Management Effectiveness Tracking Tool (METT); reported on in mid-term review and final report.
	GEF DMF: MOUs with partners on coordination of the implementation of GEF CTI projects	Kudat in Sabah, Taytay in Palawan, Manado
	GEF DMF: Meetings conducted to coordinate related activities with the NCCs, CTI Regional Secretariat, partners, and regional cooperation initiatives (e.g., ASEAN, PEMSEA,	Meetings conducted to coordinate closely with NCCs and CTI Regional Secretariat. Contacts established with ASEAN and other GEF Projects;

	COBSEA, SPREP, SSME Tri-National Committee)	

Source: Asian Development Bank.

APPENDIX 3: PROJECT OUTPUT ACHIEVEMENTS

The achievements described below follow the content format of the DMF, but have been added to and adjusted as appropriate for consistency with the text of the ADB RETA approval document. As is common with many DMFs, the DMF did not strictly follow the full project description of anticipated outputs provided in the ADB approval document text, focusing on a few key outputs.

DMF item	Output	Achievement
Output 1: Policy and Institutional Frameworks for Sustainable Coastal and Marine Resources Management (CMRM) Improved		
1	Policy, legal, and regulatory frameworks for institutionalizing effective coastal and marine resources management established.	Policies and regulations were largely in place prior to Project commencement. In Indonesia assistance provided in formulating policy on management of coral reef fishes, particularly groupers, and development of strategic plan for live fish trade. Malaysia – pilot implementation of the existing integrated coastal zone management (ICZM) policy in Sabah. Philippines – support to protected area management boards overseeing the national integrated protected areas system, and to Tañon Strait Protected Seascape and Dumanquillas Protected Landscape and Seascape.
	Building institutional capacity of national, subnational, and local government agencies in planning and implementation of resources management plans, programs, and projects in marine conservation areas, reserves, and production seascapes	The targets for institutional development were primarily concerned national, subnational, and local offices and attached agencies and local governments involved in the implementation of identified national subprojects. In addition, training was provided to other stakeholder groups, including local communities. Substantial training was provided (4 below) but there remains a need for further institutional development and capacity building, particularly as new approaches, methods, and techniques have been developed, and best practices documented, in CMRM, EAFM, and CCA
	GEF-DMF: Inter-agency coordination mechanisms for ecosystem-based management of coastal and marine resources established	CTI-CFF Regional Secretariat supported by the project
2	National operational guidelines for ecosystem-based management of coastal and marine resources adopted	**Indonesia**: drafting of a regulation on size limitation and management of live grouper fish trade in Indonesia; development of a marine spatial database for the Sulawesi Seascape, updating of the Indonesia CTI National Plan of Action (NPOA) including cost estimates for implementation. **Malaysia**: Conduct of two studies, Marine Profiling of Marudu Bay during the dry season and Climate Change Vulnerability Assessment (VA) in the Northern and Eastern Coasts of Sabah: Turtle Islands Park and Tun Mustapha

		Park, which will serve as inputs for the preparation of the Integrated Coastal Zone Management (ICZM) Plan for Marudu Bay. **Philippines**: Approval of the General Management Plan (GMP) for the Tañon Strait Protected Landscape and the Dumanquillas Bay Protected Landscape and Seascape; completion of the costing of the Philippine CTI NPOA
3	Scaled-up investment program for coastal and marine resources management (including coral reef rehabilitation and management) submitted for governments' consideration by 2012	TA activities initially were slow and scaled up investment plans could not be prepared within the proposed time scale. Instead activities are being planned and implemented as part of the NPOAs and the RPOA.
	Promoting sustainable financing of resources management and adaptation measures	**Indonesia**: Establishment of stations for buying, sorting, and collection, and buying of plastic waste; establishment and training of community-based disaster management group (SIBAT) and community health services group in Raprap, Arakan, and Sondaken villages. **Malaysia**: Support to livelihood diversification in coastal communities **Philippines**: Design and pilot implementation of a marine ecotourism-based Payment for Ecosystem Services (PES) scheme (coral and giant clam gardens) in Taytay Bay, Palawan
	GEF DMF: National Coral Reef Management Conservation Program in Indonesia. System for the evaluation of management effectiveness of MPAs in the SSME established	COREMAP 3 Design input by TL; Management Effectiveness Tool in place
	Conducting public awareness campaigns to improve stakeholders' appreciation of the need for coastal and marine resources management as a tool for improving the resilience of ecosystems and communities to climate change and other threats	**Indonesia**: youth camps and youth summit, CCA camp for 14 teachers, environmental advocates, and village heads in Bahoi, North Minahasa; online and on-site contests, community and school activities, and CTI Day celebrations; use of social media and Facebook page; production of various knowledge products; establishment of CTI community learning centers (CLCs) in the **Philippines**
4	A minimum of 200 government staff, at least 30% of whom are women, trained on ecosystem-based coastal and marine resources management.	Design/implementation of a training program on coastal resources management (CRM) and climate change adaptation (CCA) for national and local government personnel, NGOs, and the private sector. **Indonesia**: 947 persons trained; average of 35% women **Malaysia**: 484 persons trained; average of 26.6% women **Philippines**: 3,326 persons trained; average of 36% women
	Strengthening staff capability to understand the impacts of climate change, need for climate change adaptation, and identification and implementation of technically appropriate and effective adaptation measures	
	Mentoring of government staff in knowledge management (KM)	**Regional**: Development of CTI Project Mapping Tool. CTI-SEA blog site -

		http://ctisoutheastasia.wordpress.com – and Facebook page. I**ndonesia**: CCA camp in Bahoi District, North Minahasa, environmental management model, Skolak sei Pantei, an environmental education program for teachers and students, study tour to the Philippines for village heads on livelihood development **Malaysi**a: Mentoring of Alternative Kudat Community-based Ecotourism (AKCC) on KM; Development of AKCC brochure, video production, and conduct of photography and photo editing workshop **Philippines**: Conduct of Heroes of the Environment Campaign; knowledge sharing workshop for teachers; informal mentoring face to face mentoring and through email and social media.
Output 2. Eco-based approach to coastal and marine resources management pilot-tested.		
1	5 local ecosystem-based management plans pilot tested	**Regional**: Conduct of a study on the Population Genetics Structure of P. leopardus in the priority conservation areas in the SSME **Indonesia**: preparation of an Ecosystem Approach to Fisheries Management (EAFM) Plan for the Sustainable Management of Coral Reef Fisheries, especially Groupers, in Kwandang Bay **Malaysi**a: Conduct of three batches of training on EAFM for stakeholders in Sempornna and preparation of an EAFM Plan for Plectropomus leopardus ("suno"), a grouper species; finalization of the fisheries management unit (FMU) for EAFM in Sempornna **Philippines**: Conduct of a one-year stock assessment study of sardines in Dumanquillas Bay; provision of livelihood support to people's organizations (POs) in Dumanquillas Bay; updating of the Tañon Strait Protected Seascape GMP and conduct of a four-day training on coastal habitat assessment techniques for local government unit (LGU) and Protected Area Management Board (PAMB) staff; conduct of Fisheries Law Enforcement Training and Marine Mammal Rescue Training
	Pilot implementation of a fishery monitoring, control, and surveillance system in the Sulu–Sulawesi Marine Ecoregion Priority Seascape; pilot testing of ridge-to-reef management of a coastal zone with large-scale agricultural plantations and marine industries	Design of a tri-national monitoring, control, and surveillance (MCS) system to address illegal, unreported, and unregulated fishing (IUUF) in the SSME and pilot-testing of the system in at least three localities in the CT3. Signing of a resolution promoting sustainable live reef food fish trade (LRFFT) in the region at the LRFFT Intergovernmental Forum in Thailand in February 2013.
2	Effective management of marine protected areas (MPAs)	**Indonesia**: Establishment of an MPA in Sangihet covering more than 167,000 ha of

		MPA in Tatoareng Subdistrict Conduct of MPA training for the MPA management body of the Tatoareng Subdistrict MPA in Indonesia; three training modules on MPA management, including MCS, for Sabah Parks rangers **Malaysia**; conduct of law enforcement training in all **Philippines** sites; adoption of a Unified Municipal Fisheries Ordinance (UMFO) by the six municipal governments along Dumanquillas Bay; compilation of relevant provisions of the revised Fisheries Code and publication as an illustrated handbook for law enforcers.
	MPA management plan with a monitoring, control, and surveillance system for trans-boundary network of MPAs pilot-tested	**Regional**: Agreement among the CT3 to include the following areas in a transboundary MPA network (MPAN) for marine turtles: Sebatik in Indonesia, Turtle Islands Park (TIP) in Malaysia, and Balabac and Turtle Islands Wildlife Sanctuary (TIWS) in the Philippines; conduct of a Tri-national Workshop on the Establishment of a Sea Turtle MPAN and MCS in the SSME at the CTI Center in Manado, Indonesia on 12-14 June 2017. **Indonesia**: Study on Improved Turtle Conservation in Sebatik Island, including recommendations on alternative fishing gears to reduce turtle by-catch **Malaysia**: Conduct of Climate Change VA in the Northern and Eastern Coasts of Sabah: Options for Turtle Nesting and Hatchlings in Turtle Islands Park plus TIP Oceanographic Study. **Philippines**: Review of draft TIWS Management Plan, to integrate sustainable financing, climate change, and MCS; preparation of hazard maps of TIWS; establishment of livelihood projects for quality community groups, and training of wardens in Taganak Island; habitat assessment and community profiling of proposed MPAs for marine turtles and coral reef fishes in Balabac, Palawan and training of community volunteers and mapping in Ramos and Salang islands in Balabac
	Development of sustainable financing plans for MPAs for the Berau Marine Conservation Area (MCA) and Kudat and Balabac Priority Conservation Areas (PCAs)	**Indonesia:** Designation of the area around Para Island, Tatoareng Subdistrict in Sangihe District, North Sulawesi as MPA site instead of in the Berau MCA; drafting of the MPA Management and Zoning Plan for the Tatoareng Subdistrict MPA. **Malaysia**: Marine profiling and VA of Marudu Bay as inputs for ICZM planning **Philippines**: Pilot demonstration of PES in the Coral and Giant Clam Garden (CGCG) in Taytay, Palawan instead of in the Balabac MC

3	Climate change adaptation measures pilot-tested in 3 coastal communities	**Indonesia**: Conduct of accelerated climate VA in Arakan Village, North Sulawesi; implementation of community-based mangrove reforestation, solid waste management (SWM), disaster preparedness, and improvement of health and sanitation system; pilot-testing of viticulture and composting; implementation of a sustainable collection system for plastics, garbage, and other waste materials **Malaysia**: Conduct of an oceanographic study in the TIP, including an assessment of sea level rise and other impacts of climate change on sea turtles **Philippines**: Conduct of climate VA in Taytay, Palawan and implementation of the following pilot demonstration CCA activities: (i) farming of salt-tolerant rice varieties; (ii) mariculture of abalone; (iii) seaweed culture; (iv) planting of ipil-ipil (Leucaena leucocephala) as alternative source of fuelwood; and (v) training on disaster risk reduction and management (DRRM), first aid, and management of common diseases; Mangrove planting in Barangay Pamontolon, Taytay; Planting of 800 seedlings of hardwood trees in Mt. Mamaquen, Taytay; Testing of laboratory grown seaweeds in various pilot sites in Taytay. Pilot testing of salt-tolerant rice varieties. Conduct of climate VA in most hazard-prone barangays (villages) of Balabac and implementation of CCA strategies, such as: (i) Basic Life Support and First Aid Training; (ii) pilot integrated animal and vegetable farming; (iii) training on carpentry and masonry for out-of-school youth; (iv) installation of a solar-powered early warning flood system with automatic alarm at the town center
4	Development and pilot testing of sustainable livelihood activities as a means of reducing fishing pressure on resources and improving the socioeconomic conditions of coastal communities in Sabah, Malaysia	Sea cucumber farming in Mapan Mapan, Pitas District; Training of farmers in sea cucumber farming and processing; workshop on the establishment of a cooperative for sea cucumber farmers; Citizen Science Training; Community-based ecotourism (CbET) in Kudat
	Sustainable livelihood and microenterprise models for 100–250 household beneficiaries, with at least 15% micro industries and/or enterprises headed by women, established in 4–5 coastal villages in Sabah, Malaysia	82 households were beneficiaries of livelihood microenterprises established by the project. While this is 82% of the lower range of the DMF target, there are 33 women-led household beneficiaries, equivalent to 220% of the lower range of the DMF target. The Project also established livelihood models in six villages, of which five are on the coast.
From output 3, item 3	Opportunities for public–private partnerships in the development of business and management plans for marine protected areas, sustainable financing schemes, and	Some progress has been made, albeit limited. In the Philippines the Project helped organize a workshop to formulate a Taytay Tourism Development Master Plan. A valuation study of

	climate change adaptation interventions and/or measures will be identified and pursued, and women will be encouraged and supported in livelihood and enterprise development in the ecoregion	coastal resources included a willingness-to-pay survey - PES - payment for ecosystem services. The Project worked with a private resort and an organization of tourism-related establishments in Palawan; the resort is now maintaining its own MPA with artificial reefs. In Indonesia, the Project helped establish a partnership for purchase by a Mando company of waste plastics collected by three coastal villages; the company has supported coastal clean-up efforts with at least 1 ton of waste plastics collected per week. Activities were late starting in Malaysia, with a plan to develop community-based tourism linked with tourism operators based in Kota Kinabalu. The Project assisted in the development of five tourism sites in Kudat. When the Project ended, discussions linking with tourism operators were still on-going, with one site, Tajau Laut, completing its own partnerships with private tourism operators, with their own booking web site.
Output 3. Effective project management established by ADB and the CT3 countries.		
1	A project management system will be set up, consisting of (i) a TA coordination unit within ADB's Southeast Asia Environment, Natural Resources and Agriculture Division (SEER); (ii) a regional project management office; and (iii) national project coordination offices (NPCOs) in each CT3. An international project coordinator and monitoring and evaluation specialist and a project management consultant will be engaged by ADB to support the countries in project planning and implementation, and to liaise with ADB and the CTI secretariat.	(i) TA coordination unit established in ADB, including coordinator and monitoring and evaluation specialist.. (ii) RPMO set up at the PRIMEX home office in Manila and national PMUs in Jakarta (Indonesia), Sabah (Malaysia), and Manila (Philippines); (ii) linkages established with other projects and development partners, leading to collaboration in many project activities. National inception workshops and a regional inception workshop held. .
	A project performance management system will be designed and installed in the ADB TA coordination unit and NPCOs, which will include agreed performance indicators, targets, and data and/or information sources as defined in the design and monitoring framework. Monitoring and evaluation system applied	Project performance management system (PPMS) developed and maintained in the RPMO. Ecological and socioeconomic baselines in the CT3 reviewed. PMC prepared inception report, 19 quarterly progress reports (QPRs), and draft final and final reports. ADB conducted review missions, including a midterm review (MTR) mission. GEF tracking tools used to assess the effectiveness of MPA management in production seascapes in the CT3.
	GEF DMF: MOUs with partners on coordination of the implementation of GEF CTI projects	MoU signed Kudat in Sabah, Taytay in Palawan, Manado. Informal collaboration with GIZ in the Philippines
	GEF DMF: Meetings conducted to coordinate related activities with the NCCs, CTI Regional Secretariat, partners, and regional cooperation initiatives (e.g.,	Meetings conducted to coordinate closely with NCCs and CTI Regional Secretariat. Contacts established with ASEAN and other GEF Projects

	ASEAN, PEMSEA, COBSEA, SPREP, SSME Tri-National Committee)	
3	**GEF Biodiversity Tracking Tools**	Prior to MTR, effectiveness of management of protected and conservation areas in selected pilot sites was assessed using the Management Effectiveness Tracking Tool (METT) scoring method, which addresses Objectives 1 and 2 of the Biodiversity Focal Area of GEF. Through Project interventions, Indonesia, Malaysia, and the Philippines established ecosystem-based management for biodiversity conservation (Objective 1: Catalyzing Sustainability of Protected Areas) and food security as production seascapes (Objective 2: Mainstreaming Biodiversity Conservation in Production Seascapes) in these pilot sites. The comparison of management effectiveness, as gauged through midterm and end-of-project GEF scores in five project sites, showed improvements as an outcome of project interventions.
2	Two knowledge products produced per year and linked to the GEF International Waters Learning Exchange and Resource Network and national, regional, and global knowledge networks	The Project published and/or uploaded all the KM products produced by the project, including technical and information materials. Some of the materials are on VA/CCA and biophysical studies, which are inputs for MPA and EAFM planning, as required by government agencies for decision making. Some are information materials for researchers and law enforcers, such as the following: (i) The Grouper Fishes of Kwandang Bay (Indonesia); (ii) Climate Change and Vulnerability Assessment of Turtle Islands Park and Tun Mustapha Park (Malaysia); and (iii) the Filipino version of selected sections of the Philippine Fisheries Code. There are also materials that show the impact of the project on the lives of ordinary people in remote coastal communities of the Philippines (Beacons). The project also produced brochures to promote the AKCC of Kudat, Malaysia (see Appendix 9). Video presentations were prepared for Indonesia, Malaysia, and the Philippines. Indonesia focused on Disaster Preparedness and Community-based Health Services; and SWM and Food Security. The Malaysia video promoted the natural and cultural assets of AKCC for CbET to increase the communities' resilience and reduce their dependence on extractive fishing practices. The Philippine videos highlighted the compelling enthusiasm and honesty of the youth in planting mangroves and protecting the environment with the collaboration of public national high

		schools. One of the Philippine videos also featured how the Project helped in providing alternative livelihood to fishers who used to be mangrove cutters and dynamite fishers but are now protectors of the environment.

APPENDIX 4: PROJECT COSTS AT COMPLETION

Table A.4.1: Status of TA by Cost Category (US Dollars)

Category	Latest Allocation	Contracts	Disbursed Contracts	Undisbursed Contracts	Uncommitted TA
Consultants	9,456,173	8,578,345	8,578,345		877,828
Equipment	54,111	85,463	85,463		(31,352)
Training/Seminars	1,377,878	723,125	723,125		654,753
Studies	1,343,604	1,034,372	1,034,372		309,232
TA Administration	60,000	9,330	9,330		50,670
Contingency	355,416				355,416
Total	12,647,182	10,430,635	10,430,635		2,216,547
OS Advances Pending		30,664			
Total TA	12,647,182	10,461,299	10,430,635	30,664	2,185,883

Source: Asian Development Bank.

Table A.4.2: Total TA disbursements as of 21 January 2019 ($ million)

Year	Disbursement per year	Cumulative Disbursements	Percentage disbursements per year
2011	0.009	0.009	0.09
2012	0.966	0.975	9.26
2013	1.827	2.802	17.52
2014	1.821	4.623	17.46
2015	1.961	6.584	18.81
2016	1.449	8.033	13.90
2017	1.410	9.443	13.52
2018	0.984	10.427	9.44

Source: Asian Development Bank.

Table A.4.3: Budget and Disbursements for Consultants, Equipment, Training/Seminars, and Studies (US$)

	Budget	Disbursements	Percentage disbursed
Consultants	9,456,173	8,578,345	90.72
Equipment	54,111	85,463	157.94
Training/Seminars	1,377,878	723,125	52.48
Studies	1,343,604	1,034,372	76.98

Source: Asian Development Bank.

APPENDIX 5: RESPONSES TO SURVEY QUESTIONNAIRE

Table A.5.1: Extent to which CTI achieved Objectives

Item		Number of Responses						
		1	2	3	4	5	No Answer	Total
Output 1: Policy and legal frameworks established	No clear national operational guidelines Public awareness increased	0	0	10	17	8	15	50
Output 2: Ecosystem based approach pilot tested	EAFM MPA Network Livelihoods	0	1	7	18		13	50
Output 3: Project Management Systems in Place	Baseline surveys completed Training workshops	0	2	5	20	12	10	50
Climate Change Adaptation	Income generation increased	3	2	6	13	11	15	50
Gender	Women Participation	0	2	6	17	12	10	50
Sustainability	Counterpart funding	0	3	4	18	6	19	50

1= very little; 5= a lot.

Table A.5.2: How much Respondents know about CTI

Rating		Number of respondents	%
1	Very little	0	0
2		6	12
3		5	10
4		20	40
5	A lot	19	38

Table A.5.3: Extent CTI activities were well implemented

Rating		Number of respondents	%
1	Very poorly implemented	0	0
2	Poorly implemented	1	2
3	Adequately implemented	5	10
4	Well implemented	22	44
5	Very well implemented	12	24
No Response		10	20

Table 5.4: How Respondents perceive the Regional nature of the CTI contributing to achieving positive results

Rating	Number of respondents	%
No contribution	0	0
Minimal contribution	3	6
Some contribution	6	12
Significant contribution	18	36
Outstanding contribution	9	18
No response	14	28

Table A.5.5: Whether or not independent national or sub-national programs with similar resources could have achieved the same, or better results

Responses	Number of respondents	%
Yes	15	30
No	18	36
Do not know	8	19
No response	10	20

Table A.5.6: Most Notable Achievements Generated by CTI as perceived by Respondents

Responses	Item	No. of Responses
project initiatives (13 responses)	establishing Marine Protected Area (MPA) Networks	3
	PES piloting	2
	mangrove reforestation	1
	Junior Bayani ng Kalikasan Dance Troupe	1
	stakeholder outreach	1
	promotion of Coral Triangle Initiative (CTI) in the field	1
	Local EBA's	1
	persistence	1
	disaster management	1
	photocopy machine, printer, & Starbooks donated to the school are just some of the income-generating initial support from the project; materials were purchased with the use of the P15,000 cash which were granted to the Bayani ng Kalikasan teams	1
livelihood (13 responses	alternative livelihood involving seaweeds, abalone, organic vegetables, fruits, gill net fishing, and taking care of farm animals	4
	SMART Rice and Seed Production	2
	improve livelihoods that are compatible to conservation	1
	conversion of illegal mangrove cutters to legitimate community livelihood	1
	built and improved Conservation International's (CI) livelihood program in Turtle Islands, Philippines	1
	organizing people's organizations and capacitating them to undertake resource management and sustainable livelihoods	1
	funds to support the projects to the extent of income generation, which maintains the project	1
	food security	1
	support to providing salt-resistant rice variety in Taytay	1

youth empowerment (11 responses	Empowering the youth as an important manpower in the protection and conservation of the environment through youth camping and youth engagement in protected area management plan to increase environmental awareness	9
	Programs with secondary school teachers and youth	1
	Involving the typically-overlooked sectors (such as the youth, PWD's, indigenous people, illegal fishers) in the CTI-SEA activities	1
waste management (8 responses)	waste management, waste management awareness and incentives	5
	healthy community	2
	good hygiene	1
knowledge sharing (8 responses)	capacity building, study tour, sponsoring meetings, trainings	5
	knowledge management products	1
	knowledge exchanges	1
	learning new knowledge tools for fisherfolks and youth	1
climate change awareness (7 responses)	completion of Climate Change Adaptation Plan	2
	generated positive changes in behavior amongst community members towards conservation and climate change	2
	Coastal Resource Management Program and Climate Change Adaptation (RETA 7813)	2
	involving the local communities through public campaign and related events in order to help deliver the Climate Change message	1
community empowerment (6 responses)	community engagement	2
	Community Learning Center established in the school	1
	catering to the needs of the students, teachers, and the community	1
	help strengthen fisherfolk organization	1
	learning who the illegal mangrove cutters are	1
community (12 responses)	support in community-based eco-tourism (cbET) and tourism networks, development, and expansion, which were initiated by the Kudat District Office	5
	community organizing, which was not built in with the project design, would help expand the positive impacts even more	1
	declare one who motivates the community the most as the "Village Champion"	1
	knowledge sharing to the community	1
	private sector involvement	1
	expansion of the Alternative Kudat Community Cooperative (AKCC)	1
	indirect involvement of the community with the program	1
	communities begin to live a healthy lifestyle	1
government (8 responses)	ongoing capacity building on integrate CCA into local government plan to address the gaps and to ensure sustainability	2
	add more similar programs within the community & also within the government	2
	gov't. should establish hygiene campaigns to encourage people to participate	1
	gov't. should establish green technology to encourage the people to participate	1
	village government to continue the program	1
	linking government institutions and educational institutions	1
waste management (6 responses)	involve the young generation in solid waste management, amongst others	4
	proper waste segregation campaign and facilities	1
	Friday cleaning day in cooperation with the Disposal Waste Mgt. Dept. and the District Officer	1
	school environmental awareness activities which existed before	2

environment (6 responses)	communities begin to care about their environment	2
	youth summits on climate change adaptations and environmental protection activities should be integrated in the curriculum so that schools will be required to conduct school-based environmental activities.	2
others (6 responses)	conduct Biodiversity Monitoring System (BMS)	1
	Patrolling activity	1
	regional/transboundary connectivity research	1
	continuous funding for "Tindahan ng Kalikasan" so projects will be achieved	1
	strengthening institutional organizational linkages for coastal conservation	1
	develop vulnerability on CCA index among C6	1
livelihood (4 responses)	livelihoods tied to resource management	1
	small-scale, fishing-based livelihoods	1
	management of seaweed culture area for livelihood	1
	supporting ground level activities and projects of MPA's livelihood	1

Table A.5.7: Unintended Results of Effects from CTI Program

success in project initiatives (12 responses)	risk reduction in soil erosion or landslide areas, and these areas have been improved	3
	focus on a particular goal and pour in resources	1
	capacity building on how to use the tools developed	1
	fishery law enforcement strengthening in Dumangas Bay	1
	Previously inactive cleaning activity is now active because of the new mgt.	1
	shocking development and success of the program	1
	coordinating mechanism of the project to NCCs, RS, Technical Working Group (C6 TWG) has to be clarified to ensure the acceptance and the sustainability of the program	1
	former illegal environmental violators were organized into legitimate organizations now doing resource management activities and sustainable enterprises such as seaweed farming and organic vegetable farming, and have become CRM advocates at the community level	1
	increased interest from other countries in community-based eco-tourism (cbET) activities	1
	achievements turned out greater than expectations	1
positive impact on the youth (5 responses)	involvement of the young people in the community with solid waste management	
	sustainable youth environment program	
	CTI touched the hearts of the youth through their passion and wisdom in working to protect Mother Nature	
	youth-student mobilization	
	school-based activities had a positive impact on the school environment, especially on the students themselves	
local government and local community (3 responses)	increased network/stakeholder interest from the local government	1
	attention of the local government	1
	overwhelming response of the locals	1
misconception on project	local fishermen and public officials within the community tend to think that all international organizations, including non-government organizations, can easily provide livelihood assistance;	1

funds (2 responses)	ADB RETA projects are always equated to higher potential funding source, unless if clarified early on, with all stakeholders	1

Table A.5.8: Suggestions on Improving Support for CTI

knowledge sharing and coordination (12 responses)	continue, develop, and add more meetings on sharing of knowledge between the different countries and the different agencies regarding experiences done in earlier project phases, as well as after the project ends, in order to develop the exchange of ideas especially on achieving sustainability; sharing of experiences and lessons learned from other success stories	7
	engage NCC's and TWG in developing annual workplan to accommodate C6 countries which need to achieve regional plan of action (RPOA) goals in order to prioritize the urgent activities and to review the results if it needed adjustments or revisions	1
	more activities should be made available such as knowledge exchanges of best practices among government implementers, development officers, community representatives, academe, and other concerned stakeholders.	1
	dissemination activity by the Coral Triangle Initiative (CTI)	1
	CTI-SEA should work closely with the WG chairpersons (MPA, EAFM, and/or Seascapes) in pursuing the MPA network, instead of the RS	1
	use of legal document such as a Memorandum of Agreement, or the likes, in a partnership/corporation agreement.	1
the locals and its community (10 responses)	involve more sectors or local leaders from the smallest to the highest position; trickle the project to the ground level, and not only at the top level	2
	increase the focus on community livelihood	2
	dig deeper on the causes and effects of our social problems affecting the environment such as poverty	1
	help strengthen primary & secondary level community organizations, including environmental groups	1
	sustain visibility in strategic events	1
	increased and intensified participation of LGU's	1
	encourage more local participation	1
	continue advocacy to LGU for eco-tourism development	1
trainings and continuity (9 responses)	Continue the program and other government social activities	3
	Continue, improve and increase field visits to pilot areas	2
	Train community well so easier for them to adapt to eco-diversity	1
	Training workshop and training materials support for Heroes of the Nature advocacy outside the school community	1
	Continue to train and mold young leaders towards building better nation	1
	Continue and improve monitoring activities	1
support (6 responses)	ongoing advice and continuous support to communities	3
	complete the unfinished technical support on the creation of law enforcement	1
	funding support to women's group who completed skills training on Bread and Pastry Production, as well as to other groups	1
	mandate from school division could help improve support for the CTI	1

APPENDIX 6: PROGRESS TO IMPACT AND THEORY OF CHANGE

ADB project approval documentation includes a Design and Monitoring Framework (DMF) which sets out the key impact, outcome, and outputs that the project is expected to achieve, together with targets. For this Project it provided the basis for the M&E system that monitored progressive Project performance. ADB does not use a Theory of Change (ToC) approach in developing its projects, although a ToC is implicit within the problem and solution tree analysis. Nevertheless, in line with GEF requirements, a ToC has been retroactively determined and is included below as Figures A.6.1 and A.6.2.

The GEF guidelines require that evidence of progress towards impacts should be assessed, and thus requires that intermediate attainments should be assessed. Table A.6.1 below presents a revised DMF that sets out anticipated outputs, outcomes and impacts, including targets, together with some intermediate targets which need to be met to achieve the anticipated Project impact. Comparison with the DMF achievements in Appendix 2 and the output achievements in Appendix 3 show that these have been or are being achieved, including training programs and policy and regulatory changes under output 1, contributing to achieving the expected impact of improved resilience off coastal and marine ecosystems and human communities.

Under output 2, MPAs have been established, community development and other pilot projects developed and tested as models for replication, and public-private sector partnerships established with financing mechanisms built in that are proving sustainable and which will contribute to the anticipated impact of improved food security and livelihoods, and to implementation of climate change adaptation measures to increase resilience of villages. Under output 3, project knowledge and lessons have been captured and disseminated through national, regional and global networks that will enhance sustainability and replication of coastal and marine ecosystems and human livelihoods, contributing to achieving the expected impact of improved resilience.

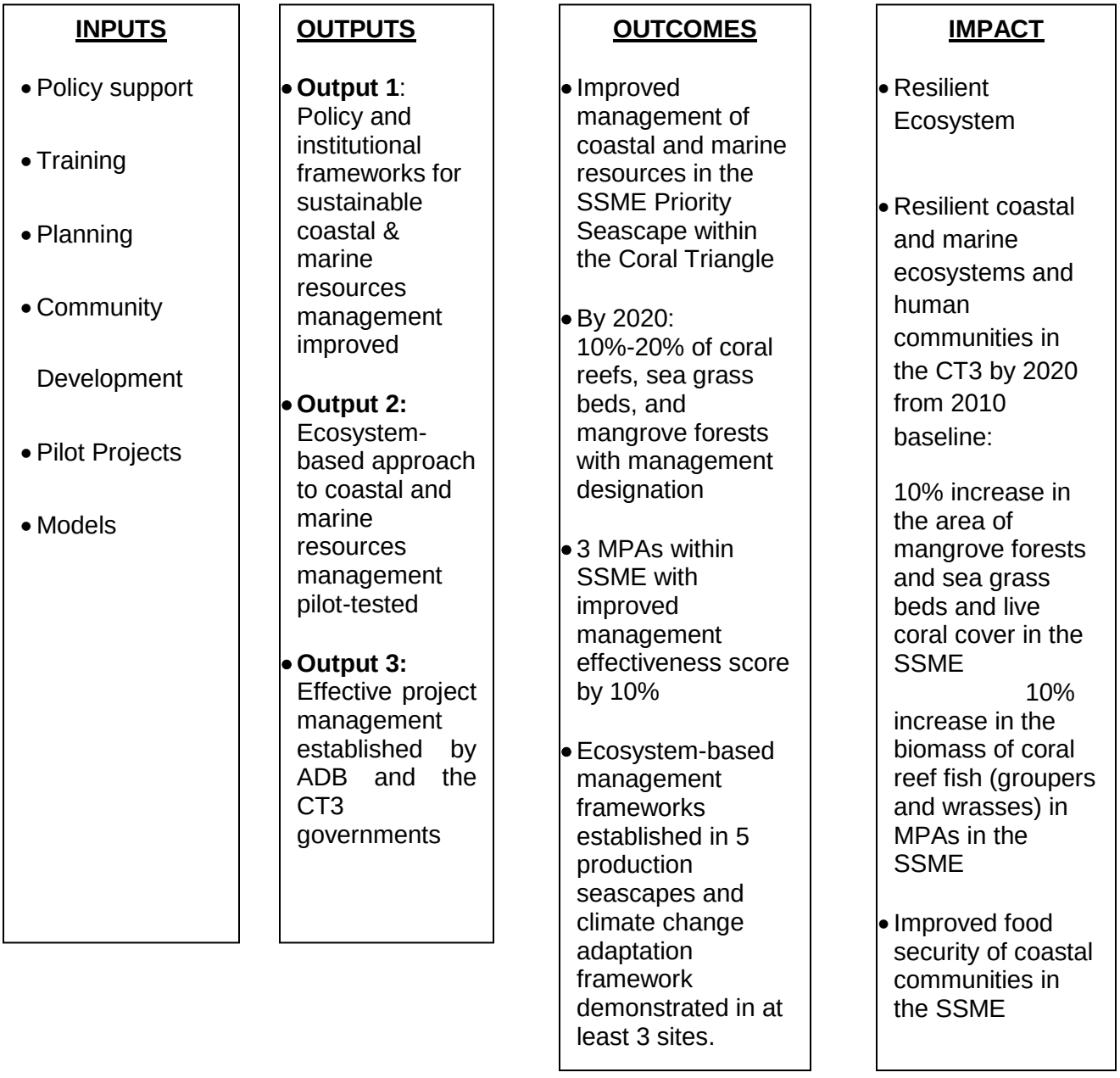
Table A.6.1: Anticipated developments from outputs to outcomes

Project Component Output	Expected Outcomes	Outcome and Output Targets	Intermediate Steps & Achievements	Desired Impacts
Output 1: Strengthening national and local institutions for sustainable coastal and marine ecosystem management National Coral Reef Management Conservation Program in Indonesia	Strengthened stakeholder capacity to effectively manage coastal and marine resources in Indonesia, Malaysia, and the Philippines (the CT3 countries). National specific guidelines for ecosystem-based approach to coastal and marine resources management developed in the CT3.	10% increase in the area of mangrove communities cover in the SSME 10% increase in the biomass of coral reef fish (groupers and wrasses) in MPAs in the SSME Improved food security[7] of coastal communities in the SSME	• Policy support • Training • Planning • Multi-sectoral governance structures for ecosystem-based management of coastal and marine resources established in the CT3. Updated regulatory framework for effective coastal and marine resources management in the CT3.	Resilient coastal and marine ecosystems and human communities in the CT3 By 2020 10% increase in mangrove and seagrass areas in the SSME. Resilient coastal and marine ecosystems & human communities in the CTI 10% increase in biomass of coral reef fish in the SSME

Project Component Output	Expected Outcomes	Outcome and Output Targets	Intermediate Steps & Achievements	Desired Impacts
Output 2: Strengthening of ecosystem-based approach to marine resources management Assessment of funding needs and gaps for MPAs and MMAs and development of sustainable financing plans and demonstration PES systems in the CT3.	Inter-agency coordination mechanisms for ecosystem-based management of coastal and marine resources established (Indonesia, Malaysia, and the Philippines). System for the evaluation of management effectiveness of MPAs in the SSME established (Philippines).	Illegal fishing in coastal areas of the 3 countries (in 300 sq. km of marine area) is reduced Number of opportunities for establishing "Blue Carbon" financing mechanisms and other Private Sector Partnership opportunities	The Framework for Establishing NMPAs in the SSME is adopted by concerned national and local agencies. Operational guidelines for integrated coastal resources management (with consideration of upstream impact to coral reef) prepared for municipalities and implemented in 10 coastal towns.	Improved food security of coastal communities in the SSME
Supporting mechanisms for sustainable livelihoods in coastal communities sustainable [**[GEF Output 3:]**	Ecosystem-based management of coastal & marine resources succeeds with the cooperation of coastal communities	Sustainable livelihood activities and microenterprises developed for 500 households' beneficiaries in 12-14 coastal communities.	• Community Development • Pilot Projects • Model • Outcome replication	Ecosystem-based management of coastal & marine resources succeeds with the cooperation of coastal communities.
	Coastal communities have successfully implemented climate change adaptation measures to increase resilience of their village.	Community-based coastal and marine resources management projects implemented in the CT3. Microcredit facilities and revolving fund established	Public-private partnerships established in the CT3. Partnerships established with the private sector Microfinance mechanisms established for all sites targeted by the project	Coastal communities have successfully implemented climate change adaptation measures to increase resilience of their village.
Output 3: Establishing effective project coordination and implementation	The components of the projects are coordinated & the activities are implemented efficiently & all expected results are achieved.	M&E system developed for the CTI & applied in 3 countries in line with the Regional M&E framework.	M&E system developed for CTI applied in 3 countries	
		Project knowledge & lessons captured &	Project knowledge & lessons captured &	

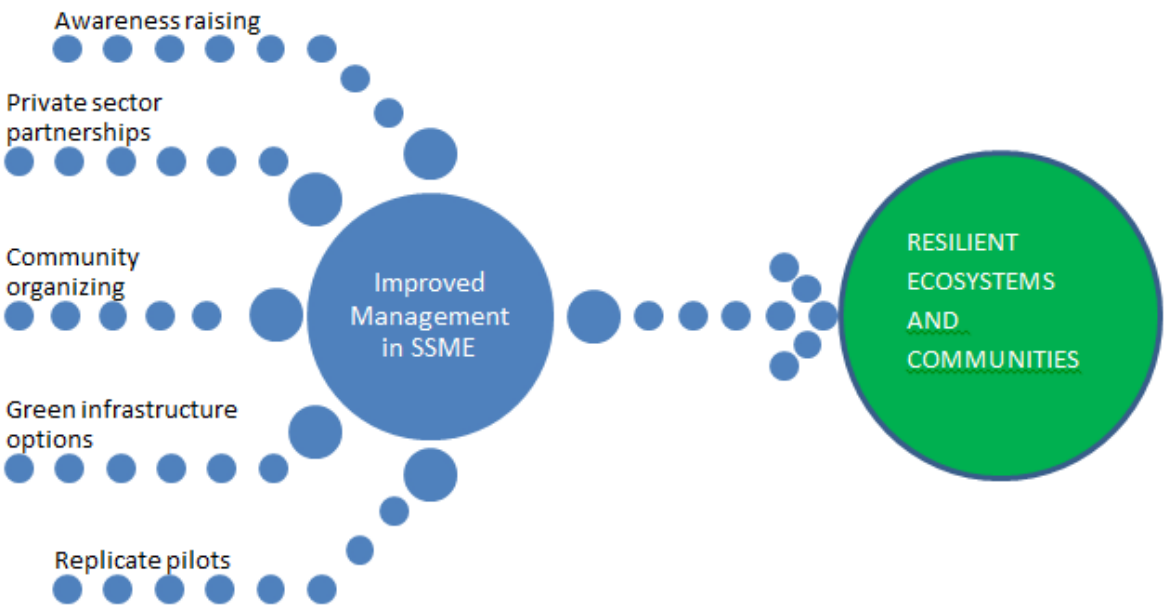
Project Component Output	Expected Outcomes	Outcome and Output Targets	Intermediate Steps & Achievements	Desired Impacts
		disseminated through national, regional & global knowledge networks, including the GEF IW: LEARN.	disseminated through national, regional, & global knowledge networks, including GEF IW: LEARN	
		Memorandum of understanding with partners on coordination of the implementation of GEF CTI projects.	MOUs with partners on coordination of the implementation of GEF CTI projects. Meetings conducted to coordinate related activities with the NCCs, CTI Regional Secretariat, partners, & regional cooperation initiatives (e.g., ASEAN, PEMSEA, SPREP COBSEA, SSME Tri-National Committee)	

Figure A6.1: Theory of Change from Inputs to Impact



The Theory of Change in Figure A6.2 was initially constructed from stakeholder consultations and questionnaire results in December 2017, and subsequently discussed with the PMC and concerned stakeholders. Stakeholders emphasized the need for awareness raising campaigns to reduce plastic waste and other land-based pollution sources. The PMC stressed the need for awareness raising in governments to strengthen links with the private sector to ensure the financial sustainability of the CTI network.

Figure A6. 2: Theory of Change for Coastal Ecosystem Management Impact Outcome pathway preconditions to achieve outcomes leading to impact



APPENDIX 7: GLOBAL ENVIRONMENT BENEFITS AND GEF TRACKING TOOLS

A. Global Environment Benefits and GEF Biodiversity Tracking Tools.

The Project was expected to provide significant global environmental benefits supporting the conservation of globally significant marine biodiversity, habitats, and ecosystem services, increasing the conservation area coverage of mangrove forests, sea grass beds and coral reefs in the Sulu-Suluwesi Marine Ecosystem. The project has delivered in all of these areas in a measurable way with mangrove forest protected in all CT3 countries along with coral reefs and sea grass beds.

Global benefits are expected to result from the replication of biodiversity conservation models tested in the project for MPA protection sustainable livelihoods and local deterrents to reduce illegal fishing. Protection of giant clams in MPAs and Payment for Ecosystem Services (PES) models with coral gardens are considered innovative. Successful pilot projects were implemented including seaweed farming, establishment of MPAs, and ecotourism. More than 400 people have been trained in climate change adaptation techniques.

In each pilot site in each of the three countries, the project established ecosystem-based management for biodiversity conservation (Objective 1: Catalyzing Sustainability of Protected Areas) and for food security as production seascapes (Objective 2: Mainstreaming Biodiversity Conservation in Production Seascapes). The Project approach involved considerable ground work at the community level to ensure full support in selected communities in adapting conservation measures including the establishment of three new MPAs. The adoption of sustainable livelihood activities near the MPAs can ensure that the coral reefs are protected - sanctuary guards or wardens are typically posted in the sanctuary which often surrounds an island.

Prior to the mid-term review (MTR), the PMC, together with site personnel, assessed the effectiveness of management of protected and conservation areas in five key pilot sites using the management effectiveness tracking tool (METT) scoring method, which addresses Objectives 1 and 2 of the Biodiversity Focal Area of GEF. Data was collected using biodiversity tracking tool templates which are attached as an Annex to this Appendix, which provided the basis for the METT scores These were updated during the last year of the project. Due to changes in the sites for the implementation under the RETA, only three sites have a baseline assessment.

The comparison of management effectiveness, as gauged through midterm and end-of project GEF scores in the five project sites, has shown improvements as an outcome of the project interventions, as briefly described in the paragraphs following the table below. The METT demonstrates an increase of 17% for Dumanquillas Bay, 20% for Kwandang Bay, 59% for Tun Mustapha Park and 75% for Tatoaerang. This is encouraging since it indicates that the conservation approach adopted by the project was effective

Table A.7 below summaries the METT scores, while the explanatory text on each site below is from the PRIMEX Report Volume 2.

Table A.7: METT score summary table

Site	Biodiversity Objective	Score			Change
		Start	Mid-term	Completion	
Indonesia					
Kwandang Bay	**Obj 2** – fisheries sector	n.a.	4	5	20%
Tatoareng MPA (Para Island and surrounding areas	Threat level	n.a.	16	18	13%
	Management effectiveness	n.a.	12	21	75%
	Financial sustainability	n.a.	n.a.	n.a.	
Malaysia					
Tun Mustapha Park	**Objective 1**				
	Threat level	62	62	63	2%
	Management effectiveness	42	48	73	74%
	Financial sustainability	n.a.	26	83	21%
	Obj 2 – fisheries, tourism sector	10	9	12	25%
Semporna	**Obj 2** – fisheries, tourism sector	n.a.	10	10	0%
Philippines					
Dumanquillas Bay	**Objective 1**				
	Threat level	70	49	n.a.	30%
	Management effectiveness	31	48	68	17%
	Obj 2 – fisheries, sector	n.a.	4	5	20%
Tañon Strait	**Objective 1**				
	Threat level	80	30	31	61%
	Management effectiveness	40	51	59	19%
	Financial sustainability	78	100	99	10%
	Obj 2 – fisheries, forestry sector	n.a.	7	12	71%
Taytay MPA – Tecas and Dinot	**Objective 1**				
	Threat level	n.a.	21	n.a.	
	Management effectiveness	n.a.	63	53	n.a. (different scoring)
Turtle Islands Marine Sanctuary	**Objective 1**				
	Threat level	n.a.	37	24	7%
	Management effectiveness	n.a.	62	58	-4%
	Financial sustainability	n.a.	91	91	0%

n.a. – not available, or not assessed. Total possible scores differ each category and are set out in the Primex Report **Objective 1**. The higher the score on the threat level, the greater is the threat in the marine protected area. The higher the score in the management effectiveness assessment, the better is the effectiveness of MPA management. The higher the value for the financial scorecard, the greater financial resources are accessible for sustainable MPA management. **Objective 2**. The score reflects the presence of biodiversity considerations in the policies. The higher the score from the baseline score the more biodiversity is mainstreamed in the sector(s).
Source Primex Final Report Volume 2

Aquaculture activities in Taytay Bay have resulted in greater vigilance to spot, report and deter illegal fishing in the project area. This supports the conservation efforts. This collaborative model also involves the participation of local government units (LGUs) and is expected to improve the effectiveness and sustainability of protected area systems worldwide by introducing local enforcement mechanisms. The method can be propagated to increase marine conservation areas that are effectively managed in the CT3.

B. Indonesia

Kwandang Bay in Indonesia was selected as the site for the application of EAFM. The guidelines developed by MMAF for gathering EAFM indicators were used to gather baseline data. At midterm, it was assessed that no specific policy and regulations were in place for the management of grouper fisheries in Kwandang Bay, hence, a score of 4. After the midterm assessment, several outputs were produced, leading to the application of EAFM in Kwandang Bay.

The EAFM Plan for Grouper in Kwandang Bay was developed based on the characterization of the bay, the fisheries management area, and on extensive stakeholder consultations with the private sector, particularly those involved in the live reef food fish trade. The EAFM Plan was presented to the Provincial Governor for approval and subsequent implementation by the resource managers. A guidebook for the identification of groupers from Kwandang Bay was produced to improve the monitoring of fish catch by species. Parallel to these efforts, a national policy for the sustainability of the live reef trade of groupers was discussed among stakeholders. A review of national policy on live reef fish trade was also carried out, and an academic paper (a policy paper) was prepared to provide the basis for the formulation of the appropriate national regulation. Draft legal documents were prepared and discussed with MMAF. The management effectiveness score has increased as a result of the draft EAFM Plan and draft provincial and national decrees, the preparation of which was supported by the project.

Tatoareng Subdistrict in North Sulawesi, Indonesia was identified by the Indonesia NCC as the site for the establishment of an MPA for biodiversity conservation under the CTICFF. At midterm, the waters around Para Island and nearby islands were considered for MPA establishment. After the conduct of studies and stakeholder consultations, a more definitive boundary of the proposed MPA was determined, viz., the subdistrict of Tatoareng in Sangihe District.

Although the threats remain the same (overfishing and habitat destruction) at the end of the project, the management effectiveness increased significantly. This increase was attributed to the conduct of an ecological survey and extensive local consultations to guide the preparation of a zoning plan for biodiversity conservation, fishing, and other uses – all in compliance with national guidelines for establishing MPAs in islands. The boundaries of the MPA have been officially delineated by the provincial government through the issuance of the Decree of North Sulawesi Governor No. 170 Reserving a Conservation Area for Coastal and Small Islands in Kepulauan Tatoareng and Surrounding Waters in Kepulauan Sangihe District on 12 April 2017.

The zoning and management plan have been completed and agreed upon by the local government, which is a requirement for the final stage of MPA establishment. The issuance of the ministerial decree was facilitated by the results of the biophysical and socioeconomic surveys funded by the RETA, which also supported the training of personnel for the creation of the MPA management body. Twenty prospective managers completed their training by obtaining a certificate of attendance at the MPA training and passing the competency examination for MPA managers. Thus, although the threats in the area remain at about the same level, management

effectiveness has increased significantly from 12% to 21% with the technical support of the RETA in planning, capacity building, and governance.

C. Malaysia

The Tun Mustapha Park was gazetted by the Government of Sabah in May 2016 after the decision of the State, in 2003, to establish a marine park in North Borneo. The legal establishment of TMP contributed to the increase in the METT score from that at midterm. Although the RETA did not directly influence this process, it facilitated the application of management interventions for the objectives of the TMP to be achieved. The project developed a livelihood project involving low-impact coastal and marine ecotourism capitalizing on the rich biodiversity in five fishing communities in Kudat. The livelihood venture is progressing well (see https://ctisoutheastasia.wordpress.com/.../paradise-on-the-risein-kudat-district-sabah-) and is expected to result in the reduction of exploitation of coral reef fisheries. Training of Sabah Park rangers on the monitoring of indicators, PES, and appropriate conduct of MCS to minimize IUUF has improved the capacity of Sabah Parks personnel in TMP management. The training on EAFM for DOFS fisheries officers from Kudat, Pitas, and Marudu and Sabah Parks rangers also built the capacity of the resource managers. However, despite these interventions, threats from resource exploitation and land-based sources of pollution remain at the same level.

The threat level has remained the same (at 62). There is no management plan in place to reduce the threats of overfishing, habitat destruction, and marine pollution from domestic waste. The management effectiveness score has increased slightly from 42 to 48. The areas of management where there were some improvements were on: (i) the planning process for management, (ii) land and water habitat conservation, and (iii) others. WWF-Malaysia is working with Sabah Parks in the management plan and in the legal basis for the establishment of the Park. The project carried out marine profiling of Marudu Bay, a part of the proposed Tun Mustapha Park, which will provide inputs in the preparation of the integrated coastal zone management (ICZM) plan for the bay. The ICZM plan will address land and water habitat considerations (e.g., pollution, connection of rivers to the sea, and others). The TMP is not part of the national park system of Malaysia. However, it is nominated by Malaysia as part of the Network of Marine Protected Areas system in the Coral Triangle, as such, the financial sustainability of TMP is important. The assessment on this aspect of MPA sustainability was done at the project mid-term. The score is low because there is no system yet to generate funds.

The **Semporna PCA** is an important site for the cage culture of groupers from the wild, i.e., the coral reefs of Semporna and beyond, and a fishing ground for small pelagic fishes and juvenile tunas. It is also a popular destination for divers, and regulations are in place to limit the number of divers allowed at one site (Sipadan). Preparations for the EAFM of groupers in the live reef food fish trade began with the training of cage operators, fishers, traders, and tour guides. A baseline study on the status of coral reefs and abundance of groupers in the coral reefs was also conducted an integrated management plan was drafted after midterm.

D. Philippines

Dumanquillas Bay in the Philippines was declared a site for protection under NIPAS. The project contributed to the improvement of bay management by facilitating the agreement of the six municipalities along the bay to jointly manage its biodiversity and marine resources. The municipal resource managers and the PAMB, with technical support from the project, conducted surveys of the ecosystem, resources, resource uses and users, including an assessment of the stock of small pelagic fishes A GMP for Dumanquillas Bay was prepared and approved by the

PAMB, and the EAFM Plan for Sardines was drafted based on the studies and stakeholder consultations.

The threat level has declined from the start of The Project intervention in 2014), with threat reduced from high to medium level from logging and food-harvesting, fishing, fragmentation of the protected area and other edge-effects, pollution for agriculture and domestic wastes. The management effectiveness score has improved (from 31 at the start and 48 at mid-term, see table) in view of the preparation of the general management plan for Dumanquillas Bay and the agreement of the municipalities along the Bay to form an alliance to protect the ecosystem and manage the important coastal and marine resources. At mid-term, Dumanquillas Bay had achieved only 30% financial sustainability.

Tañon Strait in the Philippines is another site under NIPAS. The project, in partnership with Oceana Philippines (http://www.phoceana.org), provided technical support in the formulation of the GMP for the Tañon Strait Protected Seascape. At midterm, METT was used for assessment, while at the end of the project, the modified METT for NIPAS was used. Threats from pollution from land, marine transportation, energy exploration, and fishing have remained low, for a score of 31, and management effectiveness has increased significantly with the implementation of the Tañon Strait Management Plan after PAMB approval). The aspects of management that have improved (from 54% to 58%) are: area design, protected area demarcation, program of research, adequate staff to fulfill objectives, maintenance of equipment, state and commercial users, people's inputs to management decisions, and provision of economic benefits. On the other hand, the areas that need management improvement (based on a METT score of 1 at the end-of-project assessment) are: enforcement, planning process, protection systems, staff numbers, budget, equipment, planning for land and water use, impact on local communities, and monitoring and evaluation (M&E). In general, however, as a production seascape, the agreement forged among the mayors in both Negros Oriental and South Cebu to manage the bay within their respective municipal waters and to enforce regulations on the entry of commercial fishers, destructive fishing practices, and cutting of mangrove forests has led to the improvement in the score for GEF Objective 2.

The **Turtle Islands Wildlife Sanctuary (TIWS)** is one of the oldest MPAs in the Philippines, and was established for the conservation of threatened sea turtles. It is one of the sites under NIPAS and is part of the Turtle Islands Heritage Protected Area (TIHPA), the first transboundary marine park in the SSME. Since its establishment, it has been extremely difficult to manage and monitor the TIWS due to its distance from the DENR RO in Zamboanga City. The Project collaborated with the TCSP, a national NGO, in the assessment of the ecological status of TIWS and the socioeconomic profiling of communities with co-financing from GIZ. The assessment results provided the bases for the formulation of additional MPA management and CCA interventions. A rat eradication activity was undertaken to eliminate the threat of predation on sea turtle eggs, and a livelihood project was introduced to reduce exploitation of sea turtle eggs. These management interventions resulted in the increase of management effectiveness from 51% to 56%.

APPENDIX 8: PROJECT BENEFICIARIES

(January 2018 survey)

Philippines

Project Sites	Activity	Male	Female	Total Members
1. Taytay, Palawan				
1.1 Pamantolon	Seaweed Farming (Bagong Pag-asa PO)	20	20	40
	Organic Farming (Bagong Pag-asa PO)	5	10	15
	Seaweed Farming (Pamantolon Fisherfolk Org)	15	15	30
1.2 Canique	Seaweed Farming (Canique Fisherfolk Org)	7	8	15
	Seaweed Farming (New Site Fisherfolk Org)	10	8	18
1.3 Calawag	Seaweed Farming (Amogis Fisherfolk Org)	16	13	29
	Seaweed Farming (Bantulan Fisherfolk Org)	8	22	30
	TOTAL	**81**	**96**	**177**
2. Balabac, Palawan				
2.1 Bancalaan	Seaweed Farming (Bancalaan Fisherfolk Org)	11	24	35
2.2 Ramos	Seaweed Farming	9	1	10
2.3 Salang	Goat Raising	10	-	10
	TOTAL	30	25	55
3. Turtle Islands, Tawi-Tawi				
	Handicraft making (Wallets, keychains) (Taganak Women Buyers Club)	-	19	19
	Souvenir T-shirts (Friends Youth Club)	8	7	15
	G-Satellite/Internet (Taganak Peoples Org)	4	12	16
	Money Remittance (Taganak Fisherfolk Org)	8	3	11
	TOTAL	**20**	**41**	**61**
4. Dumanquillas Bay				
4.1 Kumalarang	Fish Processing (Picanan Women's Group)	-	6	6
	Food Processing/Mud crab Culture (Bualan PO)	25	-	25
4.2 Margosatubig	Gill net and Seaweeds (Igat Fisherfolk or)	4	14	18
	Food Processing (Gamatu Fisherfolk Org)	14	8	22
4.3 Malangas	Seaweed Nursery/Crab Pot (Puting Balas PO)	18	-	18
	Seaweed Farming/Gill net (Bacao PO)	20	4	24
4.4 Vincenzo Sagun	Multiple Handline (Danan PO)	13	15	28
4.5 Lapuyan	Grouper Pot (Lapuyan Fisherfolk Org)	20	-	20
	TOTAL	**114**	**47**	**161**
	GRAND TOTAL	**245**	**209**	**454**

Indonesia

Project Sites	Activity	# of Households: 90 Microenterprises		Estimated # of beneficiaries (ave. of 4 members/ household)
CLIMATE CHANGE ADAPTATION				
1. **Arakan Village**		368		Total population: 1,286
Food security	a. Composting	4		16
Climate change adaptation	b. Verticulture	4		16
Climate change adaptation	c. Solid waste management	294		1,176
Climate change adaptation	d. First aid activity	166		664
	e. Community-based disaster risk mgt.	368		
2. **Sondaken Village**		207		Total population: 700
	a. Composting			
	b. Verticulture	11		44
	c. Solid waste management	20		80
	d. First aid activity	135		540
	e. Community-based disaster risk mgt.	207		
3. **RapRap Village**		425		Total population: 1,426
	a. Composting	10		40
	b. Verticulture	65		260
	c. Solid waste management	75		300
	d. First aid	7		28
	e. Community-based disaster risk mgt.	425		
ECOSYSTEM APPROACH FOR FISHERIES MANAGEMENT (EAFM)				
4. Kwandang Bay		**Male**	**Female**	
Kwandang Bay, Sulawesi Sea (21 Oct 2015)	Training on EAFM Guidelines and Indicators	20	10	30
Kwandang Bay, Sulawesi Sea (21 Jul 2016)	Training on EAFM Guidelines and Indicators	15	7	22
Kwandang Bay, North Gorontalo District (23 Mar 2017)	Training on Taxonomy and Monitoring of Landing of Grouper	11	5	16
Kwandang Bay, Sulawesi Sea (21 Jul 2016)	Training on EAFM Guidelines and Indicators (part 2)	15	7	22
Total		**61**	**29**	**90**
MARINE PROTECTED AREAS (MPA)				
5. Manado, North Sulawesi (13-24 Sep 2017)				
	MPA 101 Training	12	8	20

APPENDIX 9: LIST OF ON-LINE KNOWLEDGE PRODUCTS AND TECHNICAL REPORTS

TITLE	DESCRIPTION	LINK
REGIONAL		
1. **Brochure:** ADB Southeast Asia Support to the Coral Triangle Initiative Brochure	ADB Brochure outlining goals and framework of the Coral Triangle Initiative.	https://www.adb.org/publications/adb-southeast-asia-support-coral-triangle-initiative
2. Brochure: CTI Project Mapping Tool and brochure	It aims to provide a monitoring platform that will help the six countries belonging to the multilateral partnership, Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), coordinate their activities and resources with each other. The tool is also geared to assist decision makers from the National Coordinating Committees (NCCs), donors, non-government organizations (NGOs), and national agencies monitor the achievement of the five goals in the CTI-CFF Regional Plan of Action (RPOA).	**Tool:** http://ctimap.org/ (*Note: The tool is inactive as of 3 Dec 2017 since it is under migration to the website of the CTI-CFF Regional Secretariat.) **Brochure:** http://iwlearn.net/documents/25387
3. **Report**: CTI Project Mapping Tool Final Report	Final report prepared by the Team Leader who developed the CTI Project Mapping Tool in 2015 and the Database Specialist in 2017.	http://iwlearn.net/documents/25388
4. **Module**: Treasures of the Coral Triangle Minigraphics, Volume 1	This series features 10 protected marine wildlife in the Coral Triangle and aims to raise awareness about species at risk. A bite-size and shareable version of the Philippine Protected Aquatic Posters, it highlights the importance, threats, laws, and practical ways to protect threatened marine species. The series includes one feature article and mini graphics for each animal. **Module 1** features five threatened marine animals, namely: whale shark, manta ray, hammerhead shark, leatherback turtle, and Irrawaddy dolphin.https://ctisoutheastasia.wordpress.com/knowledge-products-2/treasures-of-the-coral-triangle-minigraphics/	http://iwlearn.net/documents/25389
5. **Module**: Treasures of the Coral Triangle Minigraphics, Volume 2	**Module 2** presents the sawfish, sperm whale, hump head wrasse, *dugong*, and seahorse.	http://iwlearn.net/documents/25390
6. **Bookmarks:** Treasures of the	Colorful bookmarks featuring five threatened species (*dugong*, whale shark, Triton's trumpet, wrasse, and green sea turtle) with fun facts and trivia about each animal, including their importance, threats,	https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/treasures-

TITLE	DESCRIPTION	LINK
Coral Triangle Bookmarks	conservation instruments, and what readers can do to help.	of-the-coral-triangle-bookmarks/
7. **Information Cards:** Coastal Resources in the Coral Triangle		**For uploading**
INDONESIA	**Climate Change Adaptation**	
8. Experience Note on CCA Issue 1 on Climate Change Adaptation: Seaweed-producing village heeds wake-up call for early action adaptation planning	The climate change adaptation subproject of CTI-SEA in Indonesia aimed to raise the awareness of national and local government planners as well as coastal communities about climate change. As a first step, a participatory vulnerability assessment (VA) was conducted in Arakan, Tatapaan, South Minahasa in February 2014 using the *Guide to Vulnerability Assessment and Local Early Action Planning (LEAP)* tool. Results showed that the village was vulnerable to the impacts of climate change due to the exposure, high sensitivity, and low capacity of the community. The process not only catalyzed local early action but also taught citizens that they had to develop their own adaptation plans based on their needs and ensure that these are ready for institutional support.	http://iwlearn.net/documents/2334
9. Poster: Marine turtles are important.	This poster lists the role of turtles in the ecosystem and simple things that citizens can do to protect them. https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/marine-turtles-are-important/	http://iwlearn.net/documents/25245 (English) http://iwlearn.net/documents/25246 (Bahasa Indonesia)
10. Poster: Practical ways to slow down climate change	This poster lists five small steps that every person can do to reduce his/her carbon footprint. https://ctisoutheastasia.wordpress.com/knowledge-products-2/practical-ways-to-slow-down-climate-change/	http://iwlearn.net/documents/25248 (English) http://iwlearn.net/documents/25249 (Bahasa Indonesia)
11. Video: Disaster risk reduction and health	In Indonesia, the RETA Team focused on reducing the vulnerability to climate effects of coastal villages in North Sulawesi. One of the project sites is Arakan village, which, like many coastal villages, is highly vulnerable to climate effects. In these places, natural disasters like tsunamis are inevitable. The Team thought the best that they could do to make people less afraid is to teach them how to respond to disasters. The RETA teamed up with the Indonesian Red Cross and created disaster preparedness teams. These are a group of people trained in disaster response and first aid. These teams are spearheaded	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1654762524582516/ YouTube: https://www.youtube.com/watch?v=OESGsB74hpg

TITLE	DESCRIPTION	LINK
	by women who also provide basic health services to far-flung places.	
12. Video: Solid waste management and verticulture	In Arakan, the beach was literally littered with plastic. It is a sad story to tell, but the good news is that this time, Arakan has changed. Slowly, people saw the value of managing waste and recycling. In another village, Raprap, which is highly vulnerable to climate effects like Arakan, the people have learned how to farm better and make compost through solid waste management.	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1648868855171883/ YouTube: https://www.youtube.com/watch?v=ZyjY1yu8e78
13. Book Excerpt: Tales from the Coral Triangle	Three of the 10 winning entries from the "Our Seas" story writing contest for high school students in Palawan, Philippines were translated to Bahasa Indonesia. These stories employ fantasy, humor, and drama to highlight the importance of protecting the ocean.	http://iwlearn.net/documents/25391
INDONESIA	**Ecosystem Approach to Fisheries Management**	
14. Poster: Top 10 traded species of grouper fishes in Indonesia	This poster was developed as part of the study "Restricting the size of groupers (Serranidae) exported from Indonesia in the live reef food fish trade," which was conducted by the University of Hasanuddin (UNHAS) University for RETA 7813.	http://iwlearn.net/documents/25386
15. Guidebook: Groupers of Kwandang Bay (*Kerapu Teluk Kwandang*)	This is a pocket guidebook for Identifying 30 species of groupers. The pocket guide book will be used in training enumerators, resource managers, quarantine officers, & researchers in collecting the right data for monitoring & the conduct of further research for better management of the grouper resources in the bay.	http://iwlearn.net/documents/25250 https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/groupers-of-kwandang-bay-2/
MALAYSIA	**Ecosystem Approach to Fisheries Management**	
16. **Experience Note on EAFM:** Issue 1 on Building Knowhow on the Application of EAFM in Sabah	Experts from the CT3 have identified overexploitation of marine resources & habitat loss among the key problems in transboundary waters. Specifically, the coral reef fisheries in the region have been adversely affected by the high demand for live groups, rampant illegal, unreported, & unregulated fishing (IUUF), & the rapidly growing population in coastal areas. To address these critical issues, CTI-SEA has taken steps to address IUUF at both the regional & national levels. In Malaysia, the project is building the capacity of government staff & other concerned stakeholders on the application of EAFM for coral reef fishes. This experience note discusses CTI-SEA's training on EAFM for 56 fisheries personnel & stakeholders under a cost-sharing scheme with the Department of Fisheries Sabah (DOFS) and DOF Malaysia.	http://iwlearn.net/documents/2329

TITLE	DESCRIPTION	LINK
MALAYSIA	**Ecotourism**	
17. **Brochure**: Alternative Kudat Community-based Ecotourism Collective (AKCC) Brochure	The full-color, five-panel brochure features the unique selling points of the AKCC, which is made up of Bavang Jamal, Inukiran, Loro Kecil, Tajau Laut, and Banggi Island. The brochure includes proposed travel itineraries, contact information, and photos from a professional photographer.	http://iwlearn.net/documents/25217
18. Video: Building Community-based Ecotourism	Kudat's ecotourism program is unique because tourists are given the opportunity to experience going back to the basics. The villagers across five communities in Kudat (that is Inukiran, Bavang Jamal, Loro Kecil, Tajau Laut, and Banggi) run the tourism program themselves. The villagers of Kudat have learned of ways to promote their craft, indigenous culture, and simple way of life. It is a good distraction from the extractive kind of business that locals have been used to, and It also lessens the pressure on the resources of Tun Mustapha Park.	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1447988815259887/ YouTube: https://www.youtube.com/watch?v=T8kkDeyoLf0&index=3&list=PLx81qRv6hJVwI5QGpFcSlDNdZS6fAfD2N
19. Video: Loro Kecil Promotional video	These one-minute videos showcase the natural attractions found in three of the five villages that belong to the Alternative Kudat Community-based Ecotourism Collective (AKCC) in Sabah. The AKCC has also set up their own Facebook page to promote their products, services, and tourist attractions. Visit AKCC at https://www.facebook.com/AlternativeKudat/.	https://www.facebook.com/AlternativeKudat/videos/153233038738558/
20. Video: Banggi Promotional video		https://www.facebook.com/AlternativeKudat/videos/153815905346938/
21. Video: Tajau Laut Promotional video		https://www.facebook.com/AlternativeKudat/videos/153817285346800//
PHILIPPINES	**Climate Change Adaptation**	
22. **Poster:** Climate-Smart Rice and Food Security in the Philippines Poster	This poster was used for the 8th International Waters Conference (IWC8). It outlines how climate-smart rice is helping farmers who are losing production due to climate change.	https://ctisoutheastasia.wordpress.com/knowledge-products-2/climate-smart-rice-and-food-security-in-the-philippines/
23. **Poster:** Marine turtles are important.	This poster lists the role of turtles in the ecosystem and simple things that citizens can do to protect them. https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/marine-turtles-are-important/	http://iwlearn.net/documents/25247
24. **Poster:** Practical ways to slow down climate change	This poster lists five small steps that every person can do to reduce his/her carbon footprint. https://ctisoutheastasia.wordpress.com/knowledge-products-2/practical-ways-to-slow-down-climate-change/	http://iwlearn.net/documents/25392

TITLE	DESCRIPTION	LINK
25. **Book:** Beacons: Stories from the Coral Triangle – Philippines	This book is about outstanding partners who have succeeded in overcoming challenges and made a difference in their communities. It features community champions from the municipality of Taytay and Balabac in Palawan, Zamboanga del Sur and Zamboanga Sibugay, and the Turtle Islands Wildlife Sanctuary in Tawi-Tawi.	**For uploading**
26. **Book:** Tales from the Coral Triangle (English)	Ten winning entries from the "Our Seas" story writing contest for high school students in Palawan, Philippines employ fantasy, humor, and drama to highlight the importance of protecting the ocean.	https://www.adb.org/publications/tales-coral-triangle-philippines?utm_source=Primex&utm_medium=Blog&utm_campaign=adbpublications
27. **Book:** Tales from the Coral Triangle (Filipino)		http://iwlearn.net/documents/25383
28. **Blog**: Engaging Students to Protect the Coral Triangle	Blog entry posted on the ADB website on the Heroes of the Environment communication campaign of CTI-SEA.	https://blogs.adb.org/blog/engaging-students-protect-coral-triangle
29. **Blog**: New Storybook Shows Why Coral Triangle Matters to Youth	Blog entry posted on the ADB website on the launch of the *Tales of the Coral Triangle* storybook in September 2016.	https://blogs.adb.org/blog/new-storybook-shows-why-coral-triangle-matters-youth
30. Video: Heroes of the Environment	Engaging young environmental leaders: Palawan and Zamboanga, Philippines: Philippine youth partners of the ADB and GEF-supported CTI-SEA Project share what it means for them to become Heroes for the Environment in villages in Palawan and Zamboanga.	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1648129361912499/ YouTube: https://www.youtube.com/watch?v=Er2PbeQ7v6o
31. Video: Alternative Livelihood	Tapping into unexpected partners: Palawan and Zamboanga, Philippines – Philippine partners of the ADB and GEF-supported CTI-SEA Project share their experiences on leaving illegal fishing and mangrove deforestation behind for more sustainable businesses in the village of Taytay, Palawan.	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1655702687821833/ YouTube: https://www.youtube.com/watch?v=-yKVAHNyl2c
32. **Report:** Climate Change Vulnerability and Disaster Risk	This study recommends appropriate climate change adaptation and risk reduction measures to help address present and potential climate-related problems in the municipality. These include	https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/climate-

TITLE	DESCRIPTION	LINK
Assessment Study of Balabac Municipality, Palawan	floods, storm surges, landslides, and sea level rise. The study covered six villages in Balabac (Agutayan, Bancalaan/Matanggule, Catagupan, Pasig, Rabor, and Salang), which are usually affected by floods.	change-vulnerability-and-disaster-risk-assessment-study-of-balabac-palawan/
33. Report: Turtle Islands Wildlife Sanctuary Climate Risk and Vulnerability Assessment	Climate change exacerbates natural hazards. Therefore, it cannot be dissociated or delinked from disaster risk. This study included the assessment of natural disaster risks, including earthquakes and soil liquefaction in addition to typhoons, flood, rain-induced landslides, storm surges, and sea level rise. This assessment profile will serve as a basis to formulate proposed climate change adaptation and disaster risk reduction management measures for the barangays in the Turtle Islands Wildlife Sanctuary.	**For uploading**
PHILIPPINES	**Payment for Ecosystem Services**	
34. **Experience Note on PES**: Issue 1 on Designing a Payment for Ecosystem Services (PES) Project in Taytay, Palawan: Establishing the Benchmark	Palawan is one of the main tourist attractions in the Philippines due to its pristine condition. However, the municipality of Taytay in Palawan has not fully explored its tourism potential compared to the neighboring municipalities of Coron and El Nido. The CTI-SEA Project aims to pilot-test a Payment for Ecosystem Services (PES) scheme as a financing strategy to fund the sustainable management of marine protected areas (MPAs) in Taytay. Stakeholders identified tourism as the focus of PES. The effective implementation of a PES system can generate funds for the local government and other stakeholders to use to sustainably manage their coastal resources and ensure the much-needed ecosystem services. As the first step in PES implementation, a comprehensive benchmarking study was carried out under CTI-SEA, which generated information on the current physical, ecological, and socioeconomic features of the municipality of Taytay. This experience notes, the first in a series, describes the methodology used in, and the importance of, the conduct of the benchmarking study. It will serve as the foundation for a solid PES framework for Taytay and ensure the sustainability of its ecotourism services.	http://iwlearn.net/documents/9892
35. Video: PES through Coral and Giant Clam Gardening	This short explanatory video discusses the concept of sustainable financing, PES, and coral and giant clam gardening (CGCG) in Taytay, Palawan.	Facebook**:** https://www.facebook.com/CTISoutheastAsia/videos/1447977068594395/

TITLE	DESCRIPTION	LINK
36. **Book:** Coral and Giant Clam Gardens: Experiences and Lessons in Establishing a PES Project in Taytay, Palawan, Philippines	This resource book provides an account of the pioneering efforts of a coastal municipality in establishing PES as a sustainable financing mechanism to protect and manage its marine resources.	http://iwlearn.net/documents/25214
37. **Manual:** Establishing and Monitoring Coral and Giant Clam Gardens	Residents in Taytay, Palawan are protecting corals and the vulnerable giant clams through the Coral and Giant Clam Gardening Project. This initiative was designed to seamlessly combine reef restoration and sustainable financing through ecotourism. Since 2015, this nature-based initiative has changed the way local communities look at managing marine protected areas. This manual shows how reef restoration, so important for fishing communities, can be replicated in the country.	http://iwlearn.net/documents/25215
PHILIPPINES	**Support to the Philippine National Coordinating Committee**	
38. **Report:** Costing of the Philippine National Plan of Action	The Costing of the Philippine National Plan of Action (NPOA) organizes and analyzes knowledge on baseline costs of implementation and committed funding of the CTI program.	http://iwlearn.net/documents/8219
39. **Poster:** Protected Philippine Aquatic Wildlife, Poster 1	This poster supports the CTI-SEA's goal of raising awareness among coastal communities to discourage IUUF of protected Philippine aquatic wildlife. Higher awareness will lead to the promotion of sustainable fisheries management & will contribute towards addressing Goal 5 of the Coral Triangle Initiative Regional Plan of Action (Threatened species status improving).	https://www.adb.org/projects/documents/coral-triangle-sea-protected-philippine-aquatic-wildlife-poster1-dpta
40. **Poster:** Protected Philippine Aquatic Wildlife, Poster 2	This poster features species of shells, corals, seaweed, seagrass, and high-value fauna like sea cucumber, among others. It aims to raise public awareness on aquatic wildlife protected and/or regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendices and various fishery laws or Philippine Fisheries Administrative Orders. Likewise, it serves as quick reference material for government offices or private organizations to help them address IUUF in the Philippines.	https://www.adb.org/projects/documents/coral-triangle-sea-protected-philippine-aquatic-wildlife-poster2-dpta
41. **Book:** Handbook of Fishery Laws	This handbook seeks to address the issue mentioned above by providing readers with a Filipino version of	http://iwlearn.net/documents/25216

TITLE	DESCRIPTION	LINK
	Chapter 6 on Prohibitions and Penalties of *Republic Act 10654 (An Act to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IUUF), Amending Republic Act No. 50, Otherwise known as "The Philippine Fisheries Code of 1998," and for Other Purposes).* This reference material is designed to be more reader-friendly and understandable to law enforcers.	

List of Uploaded Technical Reports

REPORT TITLE	LINK
MALAYSIA	
1. Marine turtle landing, hatching, and predation at the Turtle Island Park (TIP), Sabah	http://iwlearn.net/documents/25260
2. Oceanographic Study of Turtle Islands Marine Parks	http://iwlearn.net/documents/25394
3. Marine Profiling of Marudu Bay: Southwest Monsoon Report	http://iwlearn.net/documents/25397
4. Climate Change Vulnerability Assessment in the Northern and Eastern Coast of Sabah: Turtle Islands Park and Tun Mustapha Park	http://iwlearn.net/documents/25396
5. Climate Change Vulnerability Assessment in the Northern and Eastern Coasts of Sabah: Options for CCA Strategies for Turtles Nesting and Hatchling at Turtle Islands Park	
INDONESIA	
6. Establishment of a Marine Protected Area (MPA) in Tatoareng Subdistrict, Kepulauan Sangihe District, North Sulawesi Province, Indonesia	http://iwlearn.net/documents/25395
7. Costing of the National Plan of Action of Indonesia	http://iwlearn.net/documents/25282
8. Vulnerability Assessment and Climate Change Adaptation in South Minahasa	http://iwlearn.net/documents/25283
9. Academic paper on "Restricting the Size of Groupers (Serranidae) Exported from Indonesia in the Live Reef Food Fish Trade"	http://iwlearn.net/documents/25398
REGIONAL	
10. CTI Project Mapping Tool - Project Completion Report and User Guide	http://iwlearn.net/documents/25388