



Technical Assistance Report

Project Number: 43126
Regional Policy and Advisory Technical Assistance
July 2009

Regional Cooperation on Knowledge Management, Policy, and Institutional Support to the Coral Triangle Initiative

(Cofinanced by the Regional Cooperation and Integration Fund
under the Regional Cooperation and Integration Financing
Partnership Facility and Global Environment Facility)

ABBREVIATIONS

ADB	—	Asian Development Bank
CT6	—	six core coral triangle countries
CTI	—	Coral Triangle Initiative
CTICOM	—	CTI Council of Ministers
GEF	—	Global Environment Facility
GOF	—	Global Forum on Oceans, Coasts, and Islands
IW:LEARN	—	International Waters Learning Exchange and Resource Network
M&E	—	monitoring and evaluation
NCC	—	national coordination committee
NPOA	—	national plan of action
PES	—	payment for environmental services
PIP	—	program integration portal
POA	—	plan of action
RPOA	—	regional plan of action
SAC	—	science advisory committee
SOM	—	senior officials meeting
TA	—	technical assistance
UNDP	—	United Nations Development Programme

TECHNICAL ASSISTANCE CLASSIFICATION

Type	—	Regional—Policy and advisory technical assistance (R-PATA)
Targeting Classification	—	Targeted intervention—geographic (TI-G)
Sector (subsector)	—	Agriculture and natural resources (fishery)
Theme (subthemes)	—	Environmental sustainability (natural resources conservation, global and regional transboundary environmental concerns, environmental policy and legislation)
	—	climate change mitigation and climate change adaptation (climate change)
Location impact	—	National (high impact), regional (high impact)
Partnership	—	Global Environment Facility

NOTE

In this report, “\$” refers to US dollars.

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I. INTRODUCTION

1. The Coral Triangle Initiative (CTI) is a six-country¹ program of regional cooperation to sustainably manage coastal and marine resources in the region of the “coral triangle”. The coral triangle is an expanse of ocean covering 5.7 million square kilometers and is considered as the epicenter of marine life abundance and diversity on the planet. Following the first CTI senior officials meeting in Bali in December 2007, Indonesian President Yudhoyono requested that the Asian Development Bank (ADB) provide technical and financial assistance to support the preparation of CTI plans of action (POAs) and serve as the lead agency for CTI to access resources from the Global Environment Facility (GEF). This regional policy and advisory technical assistance (TA)² is a direct response by ADB to the request by the President of Indonesia.

2. A GEF project preparation grant was awarded to the United Nations Development Programme (UNDP) and ADB to prepare a project—Portfolio Learning in International Waters with a Focus on Oceans, Coasts, and Islands and Regional Asia/Pacific and Coral Triangle Learning Processes³—under GEF’s International Waters Learning Exchange and Resource Network (IW:LEARN). The project will have four components:⁴ (i) advancing the global agenda on oceans, coasts, and small island developing states; (ii) GEF International Waters Portfolio learning; (iii) regional cooperation on knowledge management, policy, and institutional support to the CTI; and (iv) project coordination and management. This TA will comprise component 3 of the project.

3. This TA provides a unique and high-profile opportunity to promote regional cooperation among the six core Southeast Asian and Pacific countries of the coral triangle (CT6) and responds to ADB’s regional integration and cooperation strategy,⁵ under its fourth pillar on regional public goods. The TA aims to strengthen regional policy dialogue and coordination among national governments and regional entities, in relation to cross-border issues directly affecting the sustainability of the subregion’s economy, its environment, and measures for good governance in the use and management of the natural resources of the CTI.

4. This TA is closely aligned with the archipelagic Southeast Asia regional cooperation strategy and program (2009–2012) and the following technical assistance (TA) projects, which have recently been approved or have been proposed for consideration: (i) Regional Review of the Economics of Climate Change in Southeast Asia;⁶ (ii) Regional Connectivity in Infrastructure in Archipelagic Southeast Asia;⁷ (iii) Strengthening Coastal and Marine Resources Management in the CTI of the Pacific phase 1;⁸ (iv) Strengthening Coastal and Marine Resources Management in the CTI Southeast Asia (Concept Paper); (v) Strengthening Sound Environmental Management in the Brunei Darussalam, Indonesia, Malaysia, and Philippines

¹ Includes Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor Leste.

² The TA first appeared in the business opportunities section of ADB’s website on 30 April 2009.

³ See http://www.iwlearn.net/iw-projects/iwproject.2008-04-04.8053605430/project_doc/pif-document

⁴ Components 1, 2, and 4 are managed by the United Nations Development Programme (UNDP) and will run in tandem with this TA.

⁵ ADB. 2006. *Regional Cooperation and Integration Strategy*. Manila.

⁶ ADB. 2007. *Technical Assistance for a Regional Review of the Economics of Climate Change in Southeast Asia*. Manila (TA 6427-REG for \$904,200, approved on 10 December).

⁷ ADB. 2007. *Technical Assistance for Efficiency Improvement and Connectivity Strengthening in Archipelagic Southeast Asia Project*. Manila (TA 6441-REG for \$2.750 million, approved on 19 December.)

⁸ ADB. 2008. *Technical Assistance for Strengthening Coastal and Marine Resources Management in the Coral Triangle of the Pacific Phase 1*. Manila (TA 6471-REG for \$1.125 million, approved on 18 July).

East ASEAN Growth Area.⁹ Synergies across these TA projects will ensure appropriate support for the protection and conservation of the region's coral reef and associated ecosystems.

5. In addition, the TA will utilize lessons from a wide range of existing cooperative marine and coastal resource management projects undertaken by ADB.¹⁰

II. ISSUES

6. From the outset, key CTI stakeholders, including ADB, have recognized that additional support on knowledge management, shared learning, institutional strengthening, and policy support will be needed to ensure that the goals of the CTI POAs are achieved. Some key issues concerning knowledge management, policies, and institutional support are detailed below.

A. Scientific and Technical Knowledge Management

7. **Accessibility of Information.** The CTI is underpinned by a science-based approach, but the draft regional plan of action (RPOA), which details the planned activities to be undertaken, fails to specify the critical role of research in the program or how to bring the scientific community fully into the CTI. There is a need to harmonize databases across the CT6, with standardized indicators, methodology and units of measure. Additionally, addressing information gaps would require tracking and organizing scientific and technical information such that critical information becomes available and useful to local communities and concerned stakeholders as part of the available tools for the effective management and efficient utilization of coastal and marine resources.

8. **Knowledge Management.** Implementation of the RPOA will require the use of best-available global information on practices pertaining to each program component. The subsequent implementation of action plans at the national and local levels is expected to generate a large amount of information from research and lessons from innovative practices and schemes on adaptive management, sustainable financing, and governance challenges. This body of knowledge constitutes a major CTI output, which needs to be organized and made accessible to various stakeholders in order to facilitate cross-fertilization of relevant efforts and inform policy decisions on good governance and effective management. The CTI program integration portal, funded by the United States Agency for International Development, needs to be transferred to the CTI secretariat and national focal points, and maintained after United States Agency for International Development funding ceases.

B. Institutional Development and Financing Mechanisms

9. **Coral Triangle Initiative Regional Secretariat.** The current interim CTI secretariat is hosted by the Government of Indonesia, and has developed a road map culminating in a CTI Leaders Summit on 15 May 2009. The CTI Summit brought together leaders from the CT6 to endorse the CTI Regional Plan of Action, which sets out a framework of regional cooperation and national interventions to ensure the sustainability of their shared coastal and marine resources. Little attention has been given to future CTI program coordination and management,

⁹ ADB. 2008. *Technical Assistance for Strengthening Sound Environmental Management in the Brunei Darussalam, Indonesia, Malaysia, and Philippines East ASEAN Growth Area*. Manila (TA 6446-REG for \$1.700 million, approved on 7 March).

¹⁰ These include the Sulu–Sulawesi Marine Ecoregion of the Coral Triangle; Coral Reef Rehabilitation and Management in Indonesia (phases I and II); and the Integrated Coastal Resources Management Project in the Philippines.

however, or to the associated evolution and funding of the secretariat beyond that point. Through its coordination and resource mobilization roles, ADB and other partners will need to assist the interim CTI secretariat to evaluate the options for the longer-term institutional development of the CTI secretariat. For example, the functional role played by the program integrator (currently funded by the Government of the United States) will eventually be handed over to the CTI regional secretariat. ADB will need to work closely with the current program integrator in monitoring and strengthening the capability of the CTI secretariat to ensure it can assume the program integrator role after the handover process.

10. **Sustainable Financing.** A specific challenge is to determine current levels of public and private expenditure on the management of coastal and marine resources within the CT6 to enable identification of potential resource gaps and sustainable financing options to address them. In addition, a financial architecture for coordinating and administering funds from a variety of development partners is currently absent. ADB could assist by developing a budget process for the CTI as part of the financial and/or resource mobilization and monitoring design in order to ensure sustainable financing and efficient utilization of funds.

C. Strategic Planning and Policy

11. **Implementation of the Plan of Action.** Progress has been noted in the development of complementary CTI national plans of action (NPOAs), although some of the CT6 are lagging behind in the development of their plans. To achieve the targets set forth in the RPOA, these national initiatives need NPOAs to be properly implemented, coordinated, and timed, and need to be more effectively integrated into global policy and governance developments. Experience from other GEF integrated waters projects will be shared at the Fifth Biennial GEF International Waters Conference, and may prove valuable for CTI stakeholders.

12. **Policy Development.** ADB's ongoing policy dialogue with the CT6 should be adjusted to adopt specific commitments in the RPOA as a primary area for ADB support, along with ADB's existing coordination and resource mobilization role. Global best practices in relation to economic, policy, and legal reforms need to be linked to the CTI through Fifth Biennial GEF International Waters Conference and related portfolio learning, and raised in global governance dialogues through the Global Forum on Oceans, Coasts, and Islands.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

13. The TA will strengthen the management of coastal and marine ecosystems in the coral triangle in a more coordinated and sustainable manner. Regional cooperation among the CT6 on information exchange and decision making based on scientific and technical knowledge and global best practices will be strengthened. The design and monitoring framework is in Appendix 1.

B. Methodology and Key Outputs

14. A detailed program for the proposed implementation period of 30 months, commencing August 2009, will be prepared within the first 6 months. The TA will adopt the following strategies: it will (i) make available research-based information to help define options and decisions for sustainable resource management; (ii) engage multisector and multilevel stakeholder participation and information sharing for broad-based program ownership and wider

support; (iii) build on existing policies, plans, intercountry agreements, institutional arrangements, and accomplishments to consolidate the gains and accelerate progress in the CTI region; (iv) secure the required long-term commitment from stakeholders and donors to sustain the program results in a large and complex implementation setting; and (v) consider the interaction of factors shaping common threats and opportunities for environmental protection to generate a coordinated and synergistic response for the subregion.

15. The four main outputs of the TA will be: (i) strengthened CTI regional cooperation, (ii) establishment of regional learning mechanisms, (iii) implementation of a communication and information dissemination plan, and (iv) establishment of sustainable financing schemes.

16. **Output 1: Strengthened Coral Triangle Initiative Regional Cooperation.** An expected output from this TA is strengthened capacity of the CT6 to (i) improve coordination and communication on regional issues and concerns, and (ii) effectively work together in a program of regional cooperation to ensure the long-term conservation and sustainable management of coastal and marine resources in the coral triangle. Guided by the CTI national coordination committees (NCCs), the CTI regional secretariat, and relevant CTI working groups, the TA will support capacity building, regional coordination and communications relating to the implementation of CTI POA priorities through policy dialogues, thematic workshops and consultations, publications and website enhancements, and targeted studies.

17. **Output 2: Established Regional Learning Mechanisms.** Institutional capacity in the sectoral and cross-cutting agencies involved in coastal and marine activities in the CTI countries, coordinated through the NCCs, will be developed at the national and regional levels through information exchange, regional meetings of participating countries, and technical workshops. Priorities identified by the CT6 were verified during the fact-finding in March 2009,¹¹ and include (i) identification of information needs and gaps; (ii) translation of existing information into more useable forms and utilization of this information in decision-making processes; (iii) collection of new data, from planning to implementation; (iv) improved management of information, data, and knowledge; and (v) building of scientific and “science-to-action” capacity. To ensure a link between national CTI POAs and scientific information, emphasis will be placed on building the capacity of national staff responsible for coordination.

18. **Output 3: Implemented Communication and Information Dissemination Plan.** A communications strategy will be prepared with the CT6 and development partners. This strategy will detail the mechanisms for inter-project exchange and sharing of results. It will also prescribe targeted learning processes that build on synergies and partnerships of participating governments and organizations. Online communities of practice will be established and incorporate substantive user-driven information, with access to global and regional technical and scientific resources (tied to and building on IW:LEARN experience to date). Working group reports (established under CTI POAs at the national and regional levels) will be published and widely disseminated. Technical support provided to NCCs, the CTI secretariat, and working groups will facilitate the production of the state of the coral triangle report. Appropriate communications materials on the CTI will be developed and widely disseminated throughout the CTI communities of practice. Emphasis will be placed on ensuring the disseminated information feeds directly into decision-making processes. The lack of internet access in some of the CTI countries, especially at the local government level, will also be addressed.

¹¹ Decision Support and Knowledge Management System Workshop held in Manila in March 2009.

19. **Output 4: Established Sustainable Financing Schemes for Plans of Action.** Working with the CTI financial mechanisms working group, the TA will explore innovative and sustainable financing mechanisms and seek pledges of commitment among the CT6 and their partners to implement regional POA activities in relation to improved strategic planning, communication, and capacity strengthening. ADB will also assist the CT6 in developing a financial resources operational strategy for implementing NPOAs. This will involve: (i) identifying national CTI budget flows, development partner contributions and potential resource gaps; (ii) assessing innovative and sustainable financing options, including payments for environmental services; (iii) identifying financial architecture options for coordinating and administering funds from a variety of development partners; and (iv) developing a budget process for the CTI as part of financial and resource mobilization and monitoring systems.

C. Cost and Financing

20. The TA is estimated to cost the equivalent of \$2.3 million, \$500,000 of which will be financed on a grant basis by the ADB Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility. \$1,200,000 will be financed on a grant basis by the GEF Fund through a project preparation grant.¹² The TA will be administered by ADB. The remaining \$600,000 will be contributed by the governments of the CT6 through in-kind counterpart support services, and each country will finalize its contribution before TA implementation. The detailed cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

21. ADB's Southeast Asia Department will serve as the Executing Agency for the TA and will work closely with the ADB CTI task force in the management of the TA.¹³ The lead environment agencies in each CT6 country will serve as the counterpart implementing agencies. To ensure whole-of-government engagement and coordination, the CTI NCCs in each CT6 will also be utilized. At a regional level, ADB will consult and coordinate with the CTI regional secretariat. Any specific activity funded by this TA will start in a particular member country only after ADB has received a no-objection letter from that country's government.

22. To enhance regional learning and take advantage of global synergies and links with related initiatives, the project will take a proactive approach to coordination, collaboration and information sharing with: (i) CTI projects and activities supported by other development partners and the GEF; (ii) related projects and activities under the GEF International Waters Focal Area and the IW:LEARN portfolio; and (iii) related regional and global initiatives and programs such as Coordinating Body on the Seas of East Asia, Partnerships in Environmental Management for the Seas of East Asia, and the Global Forum on Oceans, Coasts, and Islands.

23. As one of the executing agencies of the GEF grant for the project, ADB will coordinate with UNDP, the United Nations Office for Project Services (UNOPS), and the UNDP Project Coordination Unit regarding the implementation of the project and linkages between components 1 and 4. Roles and responsibilities for reporting to the GEF secretariat regarding project progress, financial disbursement, and monitoring and evaluation will be established

¹² Application for cofinancing (\$1,200,000) for project implementation was made to the GEF on 29 February 2008 and approved by the GEF Council on 24 April 2008.

¹³ Three departments within ADB coordinate and discuss matters relating to the CTI: the Pacific Department, the Regional and Sustainable Development Department, and the Southeast Asia Department.

through a memorandum of understanding and/or coordination agreement between ADB and UNDP at project commencement.

24. The TA will require 30 person-months of international consulting and 82 person-months of national consulting services. Consultants will be recruited through a firm using quality- and cost-based selection (80:20), using a simplified technical proposal. International and national consultants will be selected and hired by ADB, according to ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The outline terms of reference for the consultants are in Appendix 3, and a proposed organizational structure for implementation is in Appendix 4. Information on the coordination of the CTI at the regional, subregional, and national levels is provided in the Supplementary Appendix.

25. ADB will select a suitably qualified nongovernment organization to conduct a series of training workshops and learning events using quality- and cost-based selection. All procurement and disbursements under the TA will follow ADB's *Procurement Guidelines* (2007, as amended from time to time) and ADB's *Technical Assistance Disbursement Handbook*.¹⁴ Upon TA completion, all equipment purchased will be provided to the participating CT6 governments.

IV. THE PRESIDENT'S DECISION

26. The President acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$1,200,000 to be financed on a grant basis by the Global Environment Facility, and (ii) ADB administering a portion of technical assistance not exceeding the equivalent of \$500,000 to be financed on a grant basis by the Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility for the Regional Cooperation on Knowledge Management, Policy, and Institutional Support to the Coral Triangle Initiative, and hereby reports this action to the Board.

¹⁴ ADB. 2008. *Technical Assistance Disbursement Handbook*. Manila.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Strengthened management of coastal and marine ecosystems in the coral triangle</p>	<p>Priority management systems, decision-making support systems, and adaptive management frameworks are in place by 2012</p>	<p>Coral reef monitoring systems (e.g., ReefWatch, ReefCheck, GCRMN, and the ASEAN Centre for Biodiversity)</p> <p>Project reports from development partners and the CT6; local government monitoring reports</p> <p>Proceedings of the GEF International Waters Conference, and Global Forum on Oceans, Coasts and Islands</p> <p>Progress reports of the CTI regional secretariat and development partners</p>	<p>Assumption</p> <p>Powerful interests responsible for the main threats to reefs can be countered by effective community-based management systems and empowerment of local communities</p> <p>Risk</p> <p>Economic and other development issues take precedence over environmental concerns</p>
<p>Outcome</p> <p>Strengthened cooperation among the CT6 on information exchange and decision making on coastal and marine resources management.</p>	<p>POAs incorporate goals and targets on management, decision support, and communications; achieved by 2012</p> <p>Learning mechanisms, including workshops, training programs, and university-level training established for all CT6 countries by 2012</p>	<p>Project and/or program reports and annual reports of CTI regional secretariat and NCCs</p> <p>Workshop reports, training curricula, and university course contents</p> <p>Annual reports of CT6 governments, development partners, and the private sector</p> <p>Proceedings of CTI regional secretariat, NCC, and development partner meetings; dialogues; and consultations with key stakeholders</p>	<p>Assumption</p> <p>CT6 governments and development partners will provide adequate resources for the implementation of the POAs</p> <p>Risk</p> <p>Management of coastal and marine resources may not be given adequate priority</p>

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Outputs</p> <p>1. Strengthened CTI regional cooperation</p>	<p>Final RPOA with clear defined targets endorsed by CT6 leaders in May 2009</p> <p>NPOAs with clear defined targets endorsed by CT6 senior officials in 2009</p> <p>Baseline assessments of commitments of CT6 countries completed by December 2009</p> <p>Regular review and update of POAs from 2010 to 2012</p>	<p>Proceedings of CTI leaders summit and SOM</p> <p>Reports of CTI regional secretariat, NCCs, development partners, and CTI working groups</p> <p>Minutes of CTI regional and national meetings</p>	<p>Assumption</p> <p>All CT6 governments agree on the RPOA</p> <p>Risk</p> <p>Uneven resource base and technical capabilities of CT6 to carry out their respective NPOAs</p>
<p>2. Established regional learning mechanisms for CTI.</p>	<p>At least three working group meetings conducted to identify CTI information needs and gaps, undertake capacity needs assessments, and develop knowledge management strategies for the RPOA by June 2010</p> <p>At least three regional training workshops on information management, M&E systems, and data analysis in the refinement of the POAs by June 2011</p> <p>At least six knowledge integrator reports, with translation by 2010</p>	<p>GEF reports on IW:LEARN</p> <p>Evaluation reports on participants following learning events</p>	<p>Assumption</p> <p>CT6 will release key staff to participate in vital learning opportunities</p> <p>Staff will remain in their positions after training for continuity</p> <p>Risk</p> <p>Lack of coordination among CTI development partners may lead to duplication and inconsistent learning mechanisms</p>
<p>3. Implemented communication and information dissemination plan</p>	<p>Technical working group to prepare the state of the coral triangle report to be established by 2010</p> <p>At least three working group reports published</p>	<p>Progress reports on the CTI from development partners and the CT6</p> <p>Online database linkages to all relevant coastal and marine portals, including the US</p>	<p>Assumption</p> <p>Governments and stakeholder groups in CTI participate actively in formulating the communication strategy</p>

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	<p>each year from 2010</p> <p>Online CTI information management system linked to global systems, such as WCMC, WorldFish, International Coral Reef Initiative, IW:LEARN, and others by 2010</p> <p>At least 1,000 CTI practitioners effectively linked to global best practice through IW:LEARN by December 2011</p>	CTI PIP	<p>Risk</p> <p>Low priority is ascribed to communication and information dissemination by CTI governments and stakeholders</p>
4. Established sustainable financing schemes for POAs	<p>Study on innovative financing and options for a PES scheme for CTI completed by 2010</p> <p>Operational strategy for financing implementation of the NPOAs prepared by 2010</p>	<p>CT6 national budgets</p> <p>Proceedings of CTI meetings (e.g., SOM, ministerial meetings, financial mechanisms working group, etc.)</p>	<p>Assumption</p> <p>Governments, donor agencies, and the private sector show continued interest in funding CTI program</p> <p>Risk</p> <p>Global financial crisis affects development priorities of CTI governments and partners, reducing the priority given to the CTI</p>
Activities with Milestones			Inputs
<p>1. CTI Regional Cooperation Strengthened</p> <p>1.1 Incorporate the recommendations of the Decision Support and Knowledge Management System Workshop held in Manila in March 2009 into the CTI process through the M&E working group by October 2009</p> <p>1.2 Participate in national and/or regional inception meetings and form national working groups and/or identify focal points for decision support and knowledge management by October 2009</p> <p>1.3. Host one or more national and/or regional workshops based on the goals of the CTI RPOA to clarify strategies and actions for implementing the RPOA and NPOAs, to identify knowledge and information needs, and get input for the design of a knowledge management system by December 2009</p> <p>1.4 Conduct a design workshop on the CTI RPOA decision support and KMID strategy by January 2010</p> <p>1.5 Provide the findings of the design workshop on KMID to the RPOA, as needed, and submit to SOM by October 2010</p> <p>1.6 Prepare inputs to the 2012 tripartite terminal review of the IW:LEARN project</p>			<p>ADB RCIF: \$0.5 million</p> <p>Seminars, meetings, workshops, and training: \$0.38 million</p> <p>Studies and publications: \$0.07 million</p> <p>Contingencies: \$0.05 million</p> <p>GEF: \$1.2 million</p> <p>Consulting services (30 person-months of international consulting and 82 person-months of national consulting services): \$0.758 million</p> <p>International and local travel: \$0.116 million</p>

Activities with Milestones	Inputs
<p>as a whole</p> <p>1.7 Baseline assessments of CT6 commitments completed by December 2009</p> <p>1.8 Regular review and update of POAs from 2010 to 2012</p> <p>2. Regional Learning Mechanisms Established</p> <p>2.1 Develop recommendations for a structure for SACs at national levels by March 2010</p> <p>2.2 Conduct working group meetings by June 2010</p> <p>2.2.1 Identify CTI information needs and gaps</p> <p>2.2.2 Review capacity needs and prepare report</p> <p>2.2.3 Develop knowledge management strategies for the RPOA</p> <p>2.3 Conduct regional training workshops on information management, M&E systems, and data analysis in the refinement of the POAs by June 2011</p> <p>2.4 Produce knowledge integrator reports on translation of scientific and technical knowledge, and international best practice on coastal and marine management into the decision-making process related to the NPOAs by 2011</p> <p>3. Communication and Information Dissemination Plan Implemented</p> <p>3.1 Assist the CTI secretariat to establish and operationalize a working group to prepare the state of the coral triangle report by 2010</p> <p>3.2 Prepare a draft communication strategy by 2010</p> <p>3.3 Develop an online CTI information management system linked to global systems, such as the World Conservation Monitoring Centre, WorldFish, International Coral Reef Initiative, IW:LEARN, and others by 2010</p> <p>3.4 Link to and include information relevant to the project on the CTI and PAS websites by 2010</p> <p>3.5 Progress reports on CTI lessons and knowledge management for decision making prepared for inclusion in the state of the coral triangle report by 2012</p> <p>3.6 Prepare a study on the economics of the marine and coastal resources in the coral triangle</p> <p>4. Innovative Financing Schemes Established</p> <p>4.1 Prepare report on innovative financing mechanisms by 2010</p> <p>4.2 Support the development of an operational strategy for financing implementation of the NPOAs by 2010</p> <p>4.3 Facilitate the organization of a high-level dialogue meeting between the CT6 and partners on CTI financing issues by 2010</p> <p>4.4 Conduct a donors meeting to consider the revised, endorsed RPOA and seek preliminary indications of funding by February 2011</p> <p>4.5 Prepare the final report and submit to donors for confirmation of funding of follow-on project(s) by December 2011</p>	<p>Reports, communications, and multimedia: \$0.030 million</p> <p>Equipment: \$0.006 million</p> <p>Seminars, meetings, workshops, and training: \$0.05 million</p> <p>Miscellaneous administration and support services: \$0.12 million</p> <p>Contingencies: \$0.12 million</p> <p>Government Financing: \$0.6 million (in-kind contribution)</p>

ASEAN = Association of Southeast Asian Nations, CT6 = six core coral triangle countries, CTI = Coral Triangle Initiative, GCRMN = Global Coral Reef Monitoring Network, GEF = Global Environment Facility, IW:LEARN = International Waters: Learning Exchange and Resource Network, KMID = knowledge management and information dissemination, M&E = monitoring and evaluation, NCC = national coordination committee, NPOA = national plan of action, PAS = Pacific Alliance for Sustainability, PES = payment for environmental services, PIP = program integration portal, POA = plan of action, RCIF = Regional Cooperation and Integration Fund, RPOA = regional plan of action, SAC = science advisory committee, SOM = senior officials meeting, US = United States, WCMC = World Conservation Monitoring Centre.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility Financing^a	
1. Seminars, Meetings, Workshops, and Training ^b	380.0
2. Studies and Publications	70.0
3. Contingencies	50.0
Subtotal (A)	500.0
B. Global Environment Facility Financing^c	
1. Consultants ^d	
a. Remuneration and Per Diem	
i. International Consultants	450.0
ii. National Consultants	308.0
b. International and Local Travel	116.0
c. Reports, Communications, and Multimedia	30.0
2. Equipment ^e	6.0
3. Seminars, Meetings, Workshops, and Training	50.0
4. Miscellaneous Administration and Support Costs	120.0
5. Contingencies	120.0
Subtotal (B)	1,200.0
C. Governments of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor Leste Financing	
1. In-kind Contribution ^f	600.0
Subtotal (C)	600.0
Total	2,300.0

^a Established by the Asian Development Bank.

^b Training includes five events, 40–50 participants for 7 days @ \$300/day; studies may include chapters in the state of the Coral Triangle report.

^c Administered by the Asian Development Bank.

^d Consultant inputs include 24 person-months of international consulting and 86 person-months of national consulting services.

^e Computers, printers, liquid crystal display projectors, and screen.

^f Includes counterpart administrative, support, and translation services, and facilities (e.g., government staff time to participate in the project and attend periodic meetings/workshops; office accommodation and use of office equipment; transportation and per diem of government staff as participant in consultative meetings, workshops, and forums; etc.).

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. A team of international and national consultants will be recruited to help the Asian Development Bank (ADB) implement the regional policy and advisory technical assistance (TA). A total of 14 consultant positions are proposed, including four international and 10 national consultants. Six of the 14 consultants will be recruited through a firm using the quality- and cost-based selection procedure. In addition, the services of nongovernment organizations will be locally recruited to provide assistance in knowledge integration. Independent consultants will be contracted to conduct special studies on human exploitation of marine biodiversity by the fisheries and aquaculture sectors in the coral triangle region, and undertake analyses and prepare reports as needed. All consultants will be under the overall direction and guidance of ADB's natural resources economist assigned to manage the TA.

A. Firm

1. International Consultants

a. **Regional Cooperation Specialist and Marine Management Specialist and Team Leader** (16 person-months)

2. **Scope of Services.** The regional cooperation specialist and marine management specialist will provide leadership and expertise to the ADB and Global Environment Facility (GEF)-funded Coral Triangle Initiative (CTI) management group. The consultant will be responsible for managing and supervising technical assistance (TA) implementation to ensure the TA consultant team meets the project objectives within the specified timetable. Specific duties include but are not limited to:

- (i) support, in conjunction with the CTI regional secretariat and national coordination committees (NCCs), as well as key stakeholders, the development of detailed implementation strategies for regional and national plans of action (POAs), and develop a decision-support system for bringing current scientific knowledge and international best practice on coastal and marine management into the decision-making process related to the POAs;
- (ii) coordinate with the knowledge management and communications specialist and knowledge integrators to access, synthesize, and feed information into decision-making, including accessing and contributing to information hubs within the six core coral triangle countries (CT6), the regional secretariat, and global forums, including the International Waters: Learning Exchange and Resource Network (IW:LEARN), and the Global Forum on Oceans, Coasts, and Islands (GOF);
- (iii) in conjunction with other development partners and the CTI secretariat, review current assessments of institutional capabilities in relation to decision support and knowledge management systems, regional coordination, decision-making processes, information needs, monitoring and evaluation (M&E) programs and strategic planning; conduct additional assessments if necessary; and where possible provide direct assistance and/or linkages to other sources of institutional strengthening assistance;
- (iv) in conjunction with the CTI secretariat and NCCs, assist in conducting national and regional workshops on the CTI goals to detail implementation strategies and actions, identify information needs based on these strategies, and determine existing information for the state of the coral triangle report;

- (v) in conjunction with the CTI secretariat and NCCs, assist in conducting three workshops to build capacity to enhance decision making, including information management, M&E systems, information for decision making and data analysis;
- (vi) work with the CTI secretariat and NCCs to develop recommendations for a structure for national science advisory committees (SACs), with representative members to form a regional SAC;
- (vii) work with the CTI secretariat, NCCs, and other stakeholders to assist in developing site selection criteria, data collection protocols, and a common format for the preparation of pilot projects;
- (viii) support proactive linkages between the institutional strengthening activities of all ADB and GEF-funded CTI projects to avoid duplication or overlap of efforts;
- (ix) in conjunction with GOF and IW:LEARN, identify suitable training and portfolio learning opportunities for key staff of the CTI countries, facilitate their participation, and monitor the training outcomes for adjusting peer-to-peer learning and targeted training opportunities in subsequent years; and
- (x) assist ADB in selecting and supervising nongovernment organization partners to carry out workshops that will bring national, regional and global best practices to bear on CTI implementation activities and institutional strengthening at all levels.

b. Marine Science Specialist (6 person-months)

3. **Scope of Services.** The marine science specialist will be responsible for the provision of technical assistance and advisory services in the preparation of the state of the Coral Triangle report. The specific duties include but are not limited to the following:

- (i) assist the CTI secretariat and NCCs to establish and operate a technical working group, including CT6 representatives and technical specialists from partner organizations, to prepare the state of the coral triangle report;
- (ii) assist the CTI secretariat and NCCs develop and implement a plan to prepare the state of the coral triangle report, which would cover the current status of resource conditions, threats, and POA initiatives, as well as future plans;
- (iii) consult with key specialists to provide input to the state of the coral triangle report on the status of critical ecosystem, species, resources, threats, and progress towards CTI goals and targets;
- (iv) contribute to meetings and workshops at the national and regional levels to gather key inputs in preparing the state of the coral triangle report;
- (v) facilitate the coordination process for expert and peer review of the state of the coral triangle report; and
- (vi) with the finance specialist, prepare a budget for the state of the coral triangle report and communicate budget requirements to the CTI secretariat, NCCs, and partners.

c. Finance Specialist (2 person-months)

4. **Scope of Services.** The finance specialist will be responsible for the provision of technical assistance and advisory services in supporting budget- and finance-related activities of the CTI. The specific duties include but are not limited to the following:

- (i) assist the NCCs and the financial mechanisms working group to prioritize and determine the cost of implementation activities under the POAs;
- (ii) assist the NCCs and the financial mechanisms working group identify potential resource gaps and opportunities for partner support;

- (iii) identify CTI financial architecture options for mobilizing and disbursing funds from a variety of sources, including funds from development partners;
- (iv) develop a budget process for the CTI as part of financial and/or resource mobilization and monitoring systems; and
- (v) work with the environmental economist and payment of environmental services (PES) specialist to assess opportunities for innovative and sustainable financing for the CTI.

2. National

a. Knowledge Management and Communications Specialist (14 person-months)

5. **Scope of Services.** The knowledge management specialist will be responsible for establishing knowledge management systems with the regional secretariat and NCCs. The specific duties include but are not limited to the following:

- (i) assess the existing arrangements for knowledge management in the CTI, with particular emphasis on the Government of the United States (US)-funded CTI program integration portal (PIP), plans to transfer the PIP to the CTI secretariat, and linkage of the PIP with the IW:LEARN communities of practice and the GOF working groups on policy;
- (ii) examine the technical and institutional constraints impeding integrated information management systems in the coastal and marine management domain, particularly in the coral triangle, and propose practical solutions for consideration by the secretariat, NCCs, and relevant knowledge management staff at the local, national, and regional levels;
- (iii) work with the knowledge management staff in the CTI secretariat, NCCs, US CTI program integrator, United Nations Development Programme (UNDP), IW:LEARN, and GOF to ensure that up-to-date, accurate knowledge and best practices information is available to all implementing partners in the CTI;
- (iv) ensure that CTI knowledge management systems make relevant information on baseline assessments, coral reef and associated habitats surveys, implementation plans, economic assessments, innovative financing, and project implementation reviews and other CTI program outcomes available to global communities of practice and GOF working groups;
- (v) assist the CTI secretariat and other implementing partners address knowledge management-related problems and propose appropriate solutions as needed;
- (vi) provide regional coordination of knowledge integrators;
- (vii) ensure that knowledge management systems for the CTI take into consideration the varying needs and capacities of each of the CT6, including limited internet access in a number of countries; and
- (viii) prepare a communications and information dissemination plan.

b. Information Technology Specialist (8 person-months)

6. **Scope of Services.** The information technology consultant will work with the knowledge management communications specialist to advice on technical considerations in relation to linking and placing information relevant to the project on the CTI and Pacific Alliance for Sustainability websites. The specific duties include but are not limited to the following:

- (i) review and provide advice on existing systems and web protocols used by the US CTI PIP, IW:LEARN, United Nations Environment Programme's Environment Knowledge Hub, World Conservation Monitoring Centre, World Water Forum, and other relevant portals and websites;
- (ii) provide technical inputs on draft protocols to ensure that all knowledge and experience-sharing information relevant to the CTI and IW:LEARN is collected, stored with permanent links, and widely disseminated; and
- (iii) incorporate initial information relevant to the project on the CTI and Pacific Alliance for Sustainability websites.

c. Environmental Economist and Payment for Environmental Services Specialist (14 person-months)

7. **Scope of Services.** The environmental economist and PES specialist will be responsible for the provision of technical assistance and advisory services in supporting economics-related research and information and financing options towards the sustainable management of the CTI. The specific duties include but are not limited to the following:

- (i) review global research on the valuation of coral reefs and associated habitats to provide decision makers with a better understanding of the economic benefits of protection and conservation of marine and coastal resources;
- (ii) conduct and/or supervise additional research on the likely economic impacts of climate change on coral reefs and associated habitats and assist in various trainings on climate change and related topics;
- (iii) manage the provision of other relevant economic information to the ADB and GEF-funded CTI projects and ensure that all CTI projects access up-to-date information on the economic costs and benefits associated with the current and future damage to coral reefs, mangroves, seagrass beds, and other coastal and marine habitats;
- (iv) collect evidence from within the CT6 of work done on PES and make that available through IW:LEARN and other information portals for the information and use of CTI and global marine and coastal resource managers;
- (v) identify and design interventions related to PES;
- (vi) prepare a report on long-term sustainable financing opportunities for the CTI (e.g., *Sustainable Financing of Payments for Environmental Services in the CTI*), including an analysis of existing financing arrangements, current shortfalls, and the extent to which the CTI is expected to meet those shortfalls; and
- (vii) prepare relevant sections of the project and related reports, as required for the TA.

B. Nongovernment Organization

a. National

1. CT6 Knowledge Integrators (36 person-months)

8. **Scope of Services.** Working closely with the knowledge management and communications specialist and reporting to the regional cooperation specialist and marine management specialist and team leader, each knowledge integrator will work for approximately 2 person-months per year with the NCC in each of the CT6 countries. Ideally, these individuals would have other duties within the NCC and apply only a portion of their time to knowledge integration. The knowledge integrators will be responsible for translating scientific and best-

practice information on the CTI and provide support services on information generation, management, and dissemination. The specific duties include but are not limited to the following:

- (i) in close partnership with the NCC in-country, support the development of detailed implementation strategies and actions that would bring up-to-date scientific knowledge and international best practice on coastal and marine management into the decision-making process related to the national POAs;
- (ii) access, synthesize, and feed information into decision making, including accessing and contributing to the NCCs and the CTI regional secretariat information section;
- (iii) review current assessments of institutional capabilities in relation to knowledge management systems, decision-making processes, information needs, M&E programs and strategic planning; conduct additional assessments if necessary; and provide direct assistance, where possible, and/or linkages to other sources of institutional strengthening assistance;
- (iv) assist the regional cooperation specialist and marine management specialist and team leader in conducting national and regional workshops on the CTI goals to detail implementation strategies and actions, identify information needs based on these strategies, and determine existing information for the state of the coral triangle report;
- (v) assist the regional cooperation specialist and marine management specialist and team leader in conducting three workshops to build capacity to improve decision making, including information management, M&E systems, information for decision making and data analysis;
- (vi) develop recommendations for a structure for a national SAC with representative members of a regional SAC; and
- (vii) produce knowledge products for different users (e.g., briefing materials for policy and decision makers and educational and other materials to increase awareness and understanding of scientific and best practice information).

C. Independent Consultants

1. International

a. Regional Fisheries and Aquaculture Economist (6 person-months)

9. **Scope of Services.** Under the overall direction and guidance of ADB's natural resources economist assigned to manage the TA and in consultation with the team leader, the regional fisheries and aquaculture economist will work closely with the CTI M&E technical working group, and be responsible for producing a report on the contributions of the human exploitation of marine biodiversity by the fisheries and aquaculture sectors in the coral triangle region. The specific duties include but are not limited to the following:

- (i) based on current knowledge of existing data, identify the extent to which the required information and/or data is available for each of the CT6. The types of data that will be used for the analysis will be identified, recognizing that data for these sectors will not be standard across the six countries;
- (ii) where possible, report on the degree of overfishing on marine fisheries resources and the impacts of fisheries and aquaculture on the marine environment. Determine whether an assessment of the economic losses to the region due to overfishing can be undertaken, using similar methods to that of the World Bank

- and Food and Agricultural Organization (FAO) “The Sunken Billion: The Economic Justification for Fisheries Reform” (2009) study¹. Undertake this study if feasible;
- (iii) assess the current economic, employment, and livelihood contributions of the fisheries and aquaculture sectors in the coral triangle using the best available statistical and research study information. The assessment should take into account the full supply chain from service support to the sectors through production, post-harvest handling, and domestic and export trade;
 - (iv) examine how fisheries resources status reports can be related to other fisheries and state-of-the-coastal-environment reports, such as the biennial FAO–Regional Office for Asia and the Pacific status of Asian fish stocks report, the Global Coral Reef Monitoring Network regular reports, the FAO forest status reports, and others;
 - (v) conduct country visits and interviews with key informants, coral triangle country experts, CTI secretariat and national and regional research and technical agencies, such as the Southeast Asian Fisheries Development Center, Network of Aquaculture Centres in Asia and the Pacific, and FAO–Regional Office for Asia and Pacific. Collate, analyze the data and verify its quality, and work with the knowledge management staff of the CTI secretariat, NCCs, US CTI PI, UNDP IW:Learn and GOF to ensure that all CTI partners have access to up-to-date, accurate knowledge; and
 - (vi) determine the options for a CTI data system that integrates and maintains such data for future updating and ready access by outlining a future data management system.

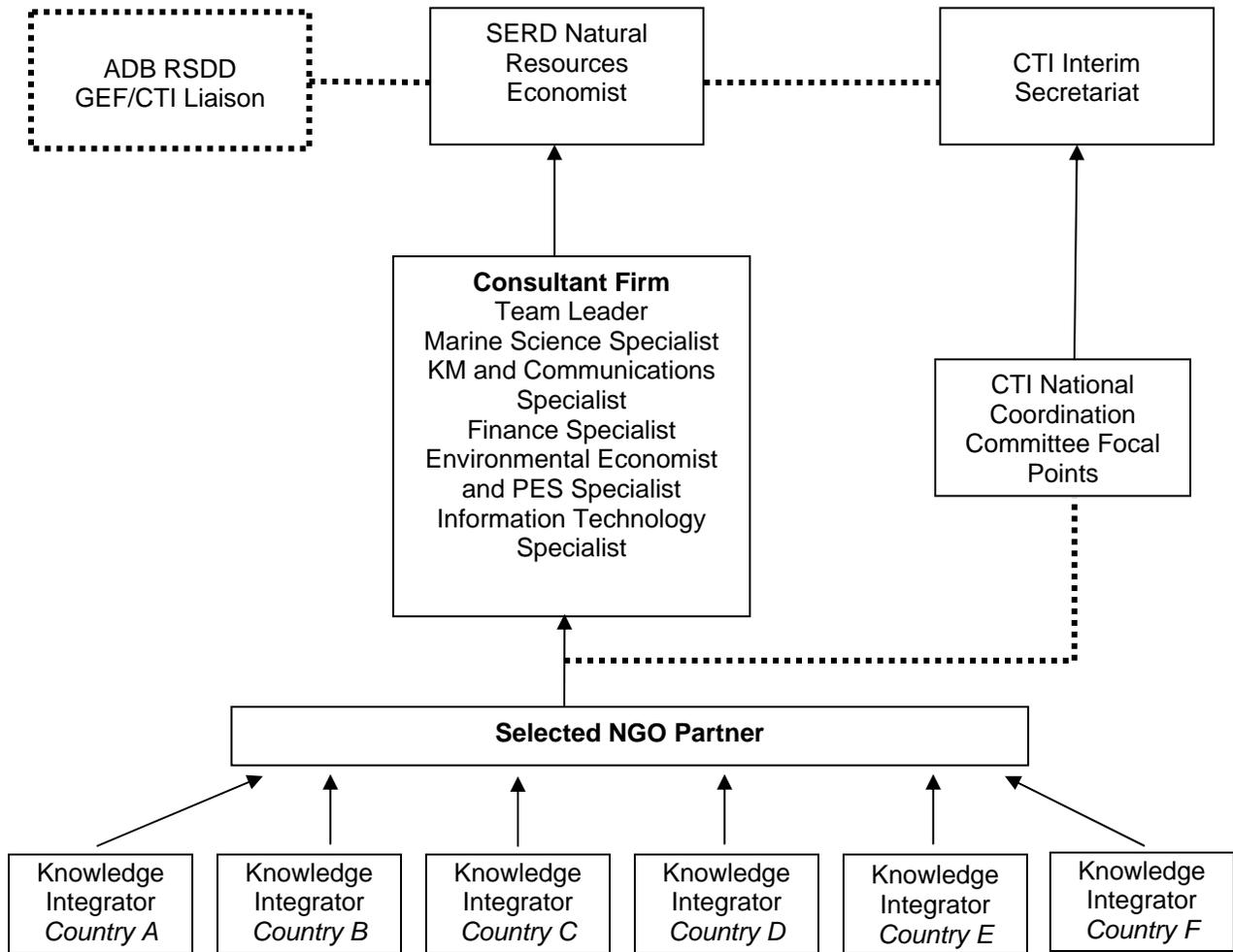
b. National

i. Other National Consultant(s) (10 person-months)

33. **Scope of Services.** Independent individual consultant(s) will be engaged on an intermittent basis to undertake analysis and prepare reports as required to meet the requests of the CTI countries.

¹ Kelleher, Kieran, Rolf Willmann, and Ragnar Arnason. 2009. *The Sunken Billion: The Economic Justification for Fisheries Reform*. Washington, D.C.: World Bank.

ORGANIZATION STRUCTURE FOR TECHNICAL ASSISTANCE CONSULTANTS AND NONGOVERNMENT ORGANIZATIONS



CTI = Coral Triangle Initiative, GEF = Global Environment Facility, KM = knowledge management, RSDD = Regional Sustainability and Development Department, SERD = Southeast Asia Department, TBD = to be determined.
 Source: Asian Development Bank.