



# Technical Assistance Report

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Project Number: 48488-001  
Regional—Capacity Development Technical Assistance (R-CDTA)  
September 2015

## Strengthening Climate and Disaster Resilience of Investments in the Pacific

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## ABBREVIATIONS

ADB	–	Asian Development Bank
DMC	–	developing member country
DRM	–	disaster risk management
GCF	–	Green Climate Fund
PARD	–	Pacific Department
TA	–	technical assistance

## NOTE

In this report, "\$" refers to US dollars.

<b>Vice-President</b>	S. Groff, Operations 2
<b>Director General</b>	X. Yao, Pacific Department (PARD)
<b>Director</b>	S. Muramoto, Officer-in-Charge, Transport, Energy and Natural Resources Division, PARD
<b>Team leader</b>	H. Uusimaa, Climate Change Specialist, PARD
<b>Team members</b>	M. Rattinger, Climate Change Specialist, Alternate Team Leader, Sustainable Development and Climate Change Department (SDCC) A. Roy, Disaster Risk Management Specialist, SDCC J. Williams, Senior Environment Specialist, PARD

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## CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 48488-001</b>	
<b>Project Name</b>	Strengthening Climate and Disaster Resilience of Investments in the Pacific	<b>Department /Division</b>	PARD/PATE
<b>Country Borrower</b>	REG Regional	<b>Executing Agency</b>	Asian Development Bank
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Transport	Transport policies and institutional development		0.25
Agriculture, natural resources and rural development	Agricultural policy, institutional and capacity development		0.25
Energy	Energy sector development and institutional reform		0.25
Water and other urban infrastructure and services	Urban policy, institutional and capacity development		0.25
<b>Total</b>			<b>1.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Adaptation (\$ million)	1.00
Environmentally sustainable growth (ESG)	Disaster risk management	Climate Change impact on the Project	Low
Regional integration (RCI)	Global and regional transboundary environmental concerns		
	Pillar 3: Money and finance		
	Pillar 4: Other regional public goods		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development	Some gender elements (SGE)	✓
Knowledge solutions (KNS)	Organizational development		
Partnerships (PAR)	Knowledge sharing activities		
	Bilateral institutions (not client government)		
	Implementation		
	Regional organizations		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Regional	High
<b>6. TA Category:</b>	B		
<b>7. Safeguard Categorization</b>	Not Applicable		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>1.00</b>	
Capacity development technical assistance: Technical Assistance Special Fund		1.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>1.00</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems	No		
Use of country public financial management systems	No		

## I. INTRODUCTION

1. The Pacific developing member countries (DMCs) of the Asian Development Bank (ADB) have regularly requested ADB support in climate risk management and accessing climate financing. As a response, ADB has incorporated climate risk management as a standard practice in investments, and has facilitated access to international climate financing, primarily as investment cofinancing.

2. New climate finance mechanisms such as the Green Climate Fund (GCF) will likely be major sources of financing. Given ADB's accreditation in March 2015 as an implementing entity of the GCF—the first for a multilateral development bank—it is likely that ADB will face increasing demands for assistance from Pacific DMCs with regard to climate-related investments that are supported by international climate finance sources. At their May 2015 meeting, Pacific DMC governors requested specific support for accessing the GCF and expanding support for climate risk management. This technical assistance (TA) will respond to this request by building the capacity of Pacific DMCs to better manage climate and disaster risks and access climate financing, which is critical for expanding climate change actions and for improving resilience of investments in the Pacific.<sup>1</sup>

## II. ISSUES

3. The small size, remoteness, and fragile biodiversity of Pacific island countries make them exceptionally vulnerable to natural hazards and climate change, but they have low capacity to manage the resulting risks. Climate change is increasing the risk associated with natural hazards. Increasing variability in rainfall patterns is increasing the risk of floods and droughts, increased ocean temperatures and ocean acidification are leading to coral bleaching and destruction of natural coastal barriers, and sea level rise is contributing to coastal erosion and salt water intrusion. These changes have increased the region's exposure and vulnerability to disasters brought about by weather events such as tropical cyclones and storm surges, which have inflicted significant losses on fragile Pacific economies. A single disaster event has the potential to erode many years of economic development gains by damaging critical infrastructure, destroying livelihoods, and diverting resources from development spending toward disaster response and reconstruction efforts.

4. Physical infrastructure associated with transport, energy, water supply and sanitation, and human settlements is particularly vulnerable to climate change and disaster risks. Adaptation measures to increase the resilience of infrastructure to both disaster events and long-term climate change may involve a significant incremental cost in addition to the underlying infrastructure investments. In a review of ADB investment projects across sectors spanning the period 2010 to 2012, it was found that climate-proofing measures represented on average 8.4% of total capital cost. For water investment projects alone, the average climate-proofing cost reached 31% of capital cost. According to the ADB report on Economics of Climate Change in the Pacific,<sup>2</sup> the Pacific region would require \$447 million on average every year until 2050 (approximately 1.5% of gross domestic product) to prepare for the worst climate scenario, and the cost could be as high as \$775 million per year or 2.5% of gross domestic product per annum. Given the very large and growing adaptation needs in the Pacific, significant amounts of additional financing must be mobilized.

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<sup>1</sup> The design and monitoring framework is in Appendix 1. The TA first appeared in the business opportunities section of ADB's website on 18 December 2014.

<sup>2</sup> ADB. 2013. *The Economics of Climate Change in the Pacific*. Manila.

5. The TA will strengthen the resilience of investments in the Pacific by (i) incorporating climate change and disaster risk management (DRM) considerations into project designs, (ii) strengthening the capacity to integrate climate change and DRM considerations in government planning processes in key sectors in selected countries, and (iii) supporting access to climate change financing. Target DMCs and investment projects will be proposed based on climate and disaster risk screening, and the adaptation priorities of Pacific DMCs.<sup>3</sup>

6. This TA will expand ongoing climate change activities in the region—such as the Pacific Regional Strategic Program for Climate Resilience,<sup>4</sup> and ongoing climate proofing activities associated with ADB investments—and build on the experience of the Pacific Department (PARD) with international climate change funds, such as the Climate Investment Funds, and the Least Developed Countries Fund of the Global Environment Facility. The TA will promote a closer working relationship with partner organizations in the production and dissemination of specific climate information relevant to investment projects, and promote regional cooperation and knowledge sharing on climate change and DRM in Pacific DMCs. The TA will also build on support to GCF and climate finance readiness provided to some Pacific countries by ADB's Sustainable Development and Climate Change Department.<sup>5</sup>

7. The TA responds to the priorities identified in the Regional Operations Business Plan for the Pacific, 2015–2017.<sup>6</sup> The TA also supports the national adaptation priorities of Pacific DMCs, and ADB's Interim Pacific Approach 2015.<sup>7</sup> As the TA support will be directly linked to pipeline investments and key sectors where ADB is providing investment support in the Pacific, the focus is consistent with country partnership strategies and Pacific Approach priorities.

### III. THE CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

#### A. Impact and Outcome

8. The impact will be strengthened integrated risk management to enhance the climate and disaster resilience of Pacific DMCs. The outcome will be increased climate and disaster resilience of investments in Pacific DMCs. This will be measured by Pacific DMCs adopting procedures for incorporating climate and disaster risk management into sector investments, and increased flow of climate change financing to selected countries.

#### B. Methodology and Key Activities

9. The TA will have three main outputs:

10. **Output 1: Climate change and disaster risk management incorporated into investments in the Pacific.** The TA will support mainstreaming of climate change and DRM into ADB investments through specific support to project teams and implementing agencies. The support may include carrying out climate risk and vulnerability assessments; identifying disaster risks based on assessments carried out by DMCs, development partners and ADB; identifying climate and disaster-proofing options in investments, including engineering solutions and ecosystem-based adaptation options, as well as incorporating gender considerations; and supporting economic analysis of projects and estimating the incremental costs of adaptation and

<sup>3</sup> TA activities in DMCs will be initiated only after a no-objection letter has been obtained from the government.

<sup>4</sup> ADB. 2013. *Implementation of the Strategic Program for Climate Resilience: Pacific Region*. Manila.

<sup>5</sup> ADB. 2013. *Enhancing Readiness of ADB Developing Member Countries for Scaled Up Climate Finance*. Manila.

<sup>6</sup> ADB. 2014. *Pacific: Regional Operations Business Plan, 2015–2017*. Manila.

<sup>7</sup> ADB. 2015. *Interim Pacific Approach 2015*. Manila.

DRM. The adaptation options are identified and prioritized based on their technical feasibility and economic viability, in accordance with the ADB climate risk management approach.<sup>8</sup> Although climate proofing could increase the upfront costs of the infrastructure projects, such costs should be economically justified by lower total life cycle costs and by the high probability of climate-related damage. The economic analysis aims to identify which adaptation option yields the highest net benefit, and it can also point to the best timing for investing in adaptation.

11. The TA will also review PARD experience on climate change and the Pacific Climate Change Implementation Plan, and provide recommendations for updating the plan or incorporating it into the Pacific Approach. The TA will also include communication and dissemination of lessons, and produce regional knowledge products or studies on climate change and climate and disaster proofing at the project level, to inform output 2 activities for supporting government sector-level mainstreaming.

12. **Output 2. Capacity to integrate climate and disaster risk management in government planning processes strengthened.** Based on the output 1 project-level experiences on climate and disaster proofing, the TA will develop sector-level guidance, tools or plans for incorporating climate and disaster risk management into investments in priority sectors in selected Pacific DMCs, and provide related capacity building activities. Target DMCs and sectors will be proposed based on an assessment of vulnerable sectors and linkages with existing investments. Key activities could include review and assessment of sector planning processes, and development of new or improvement of existing tools for incorporating climate and disaster risk management, including gender considerations, into planning and investments (such as climate risk screening tools, project appraisal tools, and guidance on economic analysis or monitoring and evaluation). The TA will also include capacity building in applying the tools, strengthening institutional arrangements and policy support for sector-level mainstreaming, and promoting regional cooperation and sharing of lessons.

13. **Output 3. Access to climate change financing supported in selected countries.** The TA will support access to climate financing to cover the incremental costs of climate change in investments. Road maps or project pipelines for accessing climate finance in Pacific DMCs will be developed, as well as support for development of financing proposals to access GCF or other climate financing resources. The TA will also identify opportunities for regional initiatives on climate change and DRM in the Pacific. Target sector investments will be proposed based on the risks and vulnerabilities of the investments, and government priorities for adaptation, following discussions with DMC authorities and regional organizations. The climate financing proposals will be developed in close coordination with the Sustainable Development and Climate Change Department and the GCF secretariat.

14. The TA is based on the assumption that the current high interest among Pacific DMCs to manage climate and disaster risks and to access a greater volume of climate finance through international finance mechanisms will continue. Potential risks are related to climate finance mechanisms not being accessible as anticipated, due to (i) lack of financial commitment by developed countries to GCF and other climate funds; (ii) excessive delays in the implementation of international climate finance mechanisms such as the GCF; and (iii) DMC investment priorities failing to correspond to those of climate finance sources. The TA is not expected to lead to any safeguard risks.

<sup>8</sup> <http://www.adb.org/publications/climate-risk-management-adb-projects>. As an example, for a transport sector project investing in bridge infrastructure, adaptation measures to respond to increased risks of flooding might include engineering solutions such as building a higher bridge, or flood control measures such as improvements in catchment management.

### **C. Cost and Financing**

15. The TA is estimated to cost \$1,000,000, which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V). The cost estimates and financing plan is in Appendix 2.

### **D. Implementation Arrangements**

16. ADB, through PARD, will be the executing agency and will exercise overall responsibility for coordination, supervision, and implementation of all project activities, while the Sustainable Development and Climate Change Department will provide technical support. The TA will be implemented over a period of 39 months. The activities are expected to commence in October 2015 and to be completed by 21 December 2018, with the closing of TA on 29 April 2019.

17. The TA will finance consulting services, workshops, regional knowledge products or studies, and report preparation. A team of international and national consultants will be engaged to assist in TA implementation. The team will include an international climate change specialist and team leader (15 person-months, intermittent) and a national project coordinator (35 person-months), recruited following individual consultant selection; and various international climate change, DRM or relevant sector specialists to be recruited through indefinite delivery contracts to flexibly respond to the project and DMC needs (15 person-months). For the indefinite delivery contracts, full terms of reference will be developed during implementation based on project needs, and lump-sum contracts may be used. The outline terms of reference for consultants are in Appendix 3.

18. The consultants will be engaged in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Disbursements will be made in accordance with the ADB *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

19. The TA will include communication and dissemination of lessons through knowledge products on climate change and climate and disaster proofing at the project level, and mainstreaming at the sector level. The project will be monitored principally through project-level reports, as well as reports from climate finance mechanisms (e.g., GCF reports). Results will be disseminated through workshops and publications.

## **IV. THE PRESIDENT'S DECISION**

20. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis for Strengthening Climate and Disaster Resilience of Investments in the Pacific, and hereby reports this action to the Board.



## DESIGN AND MONITORING FRAMEWORK

<b>Impacts the Project is Aligned with</b>			
Strengthened integrated risk management to enhance climate and disaster resilience (Draft Strategy for Climate and Disaster Resilient Development in the Pacific) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<p><b>Outcome</b></p> <p>Climate and disaster resiliency of investments in Pacific DMCs increased</p>	<p>By 2018:</p> <p>a. At least two Pacific DMCs have adopted new sector-level procedures for incorporating climate change and DRM considerations into investments</p> <p>Baseline: NA</p> <p>b. Flow of climate change financing to at least two selected countries is at least 10% higher</p> <p>Baseline: 2015 climate change financing in the selected countries</p>	<p>a. National reports of Pacific DMCs; reports from climate finance mechanisms (e.g., GCF reports)</p> <p>b. Semiannual TA progress reports</p>	<p>Climate finance mechanisms not accessible as anticipated</p>
<p><b>Outputs</b></p> <p>1. Climate and disaster risk management incorporated into investments in the Pacific</p> <p>2. Capacity to integrate climate and disaster risk management in government planning processes strengthened</p>	<p>1a. At least five new investments in the Pacific supported through climate change assessments, incorporation of climate-proofing options with gender considerations</p> <p>Baseline: NA</p> <p>1b. At least two new regional knowledge products or studies produced on climate change and/or climate and disaster proofing of investments</p> <p>Baseline: NA</p> <p>2a. At least two new tools or plans for incorporating climate and disaster risk management, as well as gender considerations, into sector investments for Pacific DMCs</p> <p>Baseline: NA</p>	<p>1a. PARD project documents (new investments)</p> <p>1b. Semiannual TA progress reports</p> <p>2a. National reports, semiannual TA progress reports</p>	<p>Pacific DMC governments do not prioritize adapting to climate change in the target sectors.</p>

<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
3. Access to climate change financing supported in selected countries	<p>3a. At least five investment projects have submitted new cofinancing proposals for GCF or other climate financing resources.</p> <p>Baseline: NA</p> <p>3b. At least three new country-level or regional road maps and/or project pipelines developed for investments in climate change and DRM</p> <p>Baseline: NA</p>	<p>3a. National reports; reports from climate finance mechanisms; semiannual TA progress reports</p> <p>3b. National reports; semiannual TA progress reports</p>	DMC investment priorities do not correspond to those of climate finance sources

### **Key Activities with Milestones**

#### **1. Incorporating climate change and disaster risk management into investments in the Pacific**

- 1.1 Consultations with PARD project officers, DMC representatives on climate and DRM needs and climate change and DRM priorities in PARD investments by Q4 2015.
- 1.2 Consultations with partner organization for supporting production of climate information relevant to PARD investments by Q1 2016.
- 1.3 Conduct of climate risk and vulnerability assessments, identification of disaster risk based on available information, and identification of adaptation and DRM needs in PARD investments by Q3 2018.
- 1.4 Identification of climate and disaster proofing options and components for PARD investments, including ecosystem-based adaptation options and gender considerations by Q3 2018.
- 1.5 Review of PARD experience on climate change and the CCIP, with recommendations for updating the CCIP and communication and dissemination of lessons by Q4 2015.
- 1.6 Submission of updated CCIP, either as a new plan or as part of the Pacific Approach by Q1 2016.
- 1.7 Creation of a PARD database for climate risk and vulnerability assessments and other climate information by Q4 2016.
- 1.8 Production of regional knowledge products or studies on climate change by Q4 2018.

#### **2. Strengthening capacity to integrate climate and disaster risk management in government planning processes**

- 2.1 Consultations with relevant DMC representatives and development partners and with regard to national priorities and climate change and DRM needs at sector level linked to PARD investments by Q1 2016.
- 2.2 Mapping of existing information resources on climate change and DRM by sector and on investment needs and options by Q2 2016.
- 2.3 Establishment of partnerships on climate change and disaster risk information by Q3 2016.
- 2.4 Development of sector-level guidance, tools or plans for incorporating climate and disaster risk management into sector investments, including gender considerations by Q2 2018.
- 2.5 Presentation of guidance and tools to relevant stakeholders at the national level by Q3 2018.

<b>Key Activities with Milestones</b>	
<b>3. Supporting access to climate change financing in selected countries</b>	
3.1	Consultations with relevant stakeholders (PARD project officers, DMC representatives, development partners) with regard to national priorities and climate risk management needs at sector level linked to PARD investments by Q2 2016.
3.2	Development of a road map and/or project pipelines for accessing climate finance in Pacific DMCs by Q2 2018.
3.3	Development of cofinancing proposal for GCF or other climate financing resources, by Q4 2018
<b>Inputs</b>	
ADB: \$1,000,000 (grant)	
<b>Assumptions for Partner Financing</b>	
Not applicable.	

ADB = Asian Development Bank, CCIP = climate change implementation plan, DMC = developing member country, DRM = disaster risk management, GCF = Green Climate Fund, NA = not applicable, PARD = Pacific Department, TA = technical assistance.

<sup>a</sup> Secretariat of the Pacific Community. 2015. *Draft Strategy for Climate and Disaster Resilient Development in the Pacific (Version 17)*. Suva.

Source: Asian Development Bank.

**COST ESTIMATES AND FINANCING PLAN**

(\$'000)

<b>Item</b>	<b>Amount</b>
<b>Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	600.0
ii. National consultants	175.0
b. International and local travel	80.0
2. Training, seminars, and conferences	
a. Facilitators <sup>b</sup>	25.0
b. Training program	10.0
3. Miscellaneous administration and support costs	10.0
4. Contingencies	100.0
<b>Total</b>	<b>1,000.0</b>

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V).

<sup>b</sup> Including travel of Asian Development Bank project staff serving as resource persons during project activities, e.g., as facilitators or speakers in project workshops or trainings.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. A team of international and national consultants will be engaged to assist in technical assistance (TA) implementation. The TA will require about 30 person-months of international and 35 person-months of national consultant inputs. The Asian Development Bank (ADB) will engage all consultants in accordance with its Guidelines on the Use of Consultants (2013, as amended from time to time).

### A. International Consultants

2. **Senior climate change and disaster risk management specialist and team leader** (15 person-months, intermittent). The consultant will have at least a master's degree in economics, environmental science, or a related field, and 10 years of experience related to the environment, climate change, and disaster risk management (DRM). Knowledge of ADB and experience in the Pacific are highly desirable. The consultant will be responsible for the following tasks:

- (i) coordinate overall TA implementation, including coordination of inputs by other consultants;
- (ii) consult with Pacific Department (PARD) project officers and developing member country (DMC) representatives on climate and DRM needs and climate change and DRM priorities in PARD investments and at the sector level in Pacific DMCs;
- (iii) consult with partner organizations to support climate and disaster information relevant for PARD investments;
- (iv) map existing information resources on climate and DRM by sector, and by investment needs and options;
- (v) coordinate climate risk and vulnerability assessments, identify disaster risk based on existing information, and identify adaptation and DRM needs in PARD investments;
- (vi) identify opportunities for investment with significant climate change adaptation and/or DRM benefits and climate and disaster-proofing options, as well as associated co-benefits, in accordance with national development plans (including sector plans, National Adaptation Programmes of Action, and Joint National Action Plans for Disaster Risk Management and Climate Change Adaptation); and make an initial evaluation of their technical, financial, social, environmental, and political feasibility;
- (vii) provide expertise and inputs on opportunities and mechanisms to expand ADB operations to enhance DMC climate and disaster resilience;
- (viii) develop a financing plan for the actions in close consultation with DMC authorities; and identify needs for and possible sources of financial, technological, and capacity building support;
- (ix) develop recommendations for mobilizing the needed support, including from bilateral and multilateral sources;
- (x) develop a road map and project pipelines for accessing climate finance in Pacific DMCs, and coordinate the development of funding proposals;
- (xi) identify opportunities and provide recommendations for regional initiatives on climate change and DRM in the Pacific;
- (xii) coordinate the development of sector-level guidance, tools or plans for incorporating climate and disaster-risk management into sector investments;
- (xiii) define baselines, targets and timelines for implementation; and implement progress monitoring and evaluation;

- (xiv) review PARD experience on climate change and the climate change implementation plan, and provide recommendations for updating the climate change implementation plan, as well as for communication and dissemination of lessons;
- (xv) prepare and submit reports; and
- (xvi) any other relevant tasks.

3. **Climate change, disaster risk management, and sector specialists** (15 person-months, intermittent, to be determined). Climate change and DRM specialists will be hired on a flexible basis to support the team leader in the implementation of activities in selected DMCs under outputs 1, 2, and 3. The consultants will have at least 10 years of experience in climate change adaptation, DRM, economics, or relevant sectors (e.g., energy, transport, urban development, agriculture, and water and sanitation); working experience in the Pacific; and a master's degree in a related discipline. Experience working with ADB is desirable. Full terms of reference will be developed during implementation based on project needs, but the generic tasks will include the following:

- (i) conduct climate risk and vulnerability assessments and identification of adaptation and DRM needs in PARD investments, in accordance with the ADB climate risk management approach;
- (ii) identify climate and disaster-proofing options and components for PARD investments, including ecosystem-based adaptation options;
- (iii) conduct economic analyses of projects and estimate the incremental costs of adaptation;
- (iv) map existing information resources on climate and DRM by sector and on investment needs and options;
- (v) develop national and/or regional road maps and/or project pipelines for investments in climate change adaptation and DRM;
- (vi) develop sector-level guidance, tools or plans for incorporating climate and DRM into sector investments;
- (vii) develop cofinancing proposals for the Green Climate Fund or other climate financing resources; and
- (viii) any other relevant tasks.

## B. National consultants

4. **Project coordinator** (35 person-months). The consultant will have at least 10 years of experience in project administration, and a bachelor's degree in a related field. Experience with ADB is highly desirable. The consultant will be responsible for the following tasks:

- (i) support the team leader in coordinating implementation of the TA;
- (ii) support coordination and scheduling of inputs by consultants;
- (iii) develop project implementation schedules and apply adaptive management approaches to ensure smooth delivery of the TA outputs;
- (iv) support the recruitment of consultants;
- (v) support financial administration of the TA;
- (vi) coordinate and organize workshops and meetings;
- (vii) create and maintain a database for climate risk and vulnerability assessments and other climate information;
- (viii) support the preparation of reports, publications, and knowledge products; and
- (ix) undertake any other tasks needed to ensure the smooth implementation of the TA.