



# Technical Assistance Report

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Project Number: 49270-001  
Regional—Capacity Development Technical Assistance (R-CDTA)  
December 2015

## Supporting Low-Carbon Development in Asia and the Pacific through Carbon Markets (Cofinanced by the Government of Finland and the Government of Luxembourg)

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
CDM	–	Clean Development Mechanism
CMP	–	Carbon Market Program
DMC	–	developing member country
ETS	–	emission trading scheme
GHG	–	Greenhouse gas
POA	–	program of activities
SDCC	–	Sustainable Development and Climate Change Department
TA	–	technical assistance
UNFCCC	–	United Nations Framework Convention on Climate Change

## NOTE

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

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## CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 49270-001</b>	
<b>Project Name</b>	Supporting Low Carbon Development in Asia and the Pacific through Carbon Markets	<b>Department /Division</b>	SDCC/SDCD
<b>Country</b>	REG	<b>Executing Agency</b>	Asian Development Bank
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>Financing (\$ million)</b>	
✓ Multisector	ADB's corporate management, policy and strategy development		1.50
		<b>Total</b>	<b>1.50</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	Climate Change impact on the Project	Low
Environmentally sustainable growth (ESG)	Disaster risk management Eco-efficiency Environmental policy and legislation Global and regional transboundary environmental concerns Natural resources conservation Urban environmental improvement		
Regional integration (RCI)	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	No gender elements (NGE)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Knowledge sharing activities		
Partnerships (PAR)	Civil society organizations Implementation		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Not Applicable	
<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>0.00</b>	
None		0.00	
<b>Cofinancing</b>		<b>1.50</b>	
Finland (w/ LoA)		1.43	
Government of Luxembourg		0.07	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>1.50</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 Carbon Market Program (CMP), established in 2006,<sup>1</sup> is one of the flagship climate change initiatives of the Asian Development Bank (ADB) providing technical support and carbon finance to mitigation projects in ADB's developing member countries (DMCs). The CMP includes (i) the Asia Pacific Carbon Fund; (ii) the Future Carbon Fund; and (iii) the Technical Support Facility. The Technical Support Facility has been the main instrument through which ADB provides capacity building support to its DMCs for enhancing mitigation actions through carbon markets.

2. The proposed regional capacity development TA will enable ADB to continue supporting DMCs in maximizing market-based opportunities to transit towards low-carbon economies. The concept paper for the technical assistance (TA) was approved by the vice-president of Knowledge Management and Sustainable Development on 19 October 2015. The TA will build on ADB's strong expertise and experience from three previous TA projects under the CMP and proactively respond to DMCs' needs for support in order to take up the opportunities presented by the emerging international climate change architecture.<sup>2</sup>

3. The TA has been developed in consultation with the governments of Finland and Luxembourg, including consideration of Finland's Development Policy Programme and criteria specified by their quality assurance board. The TA was also conceptualized following consultations with DMCs.<sup>3</sup> Further consultation with DMCs will be undertaken while developing the detailed TA work plan.

4. The TA is closely linked to ADB's strategic framework—Strategy 2020—and its midterm review,<sup>4</sup> which includes environment and climate change as one of the priorities that ADB will strategically focus on leading up to 2020.<sup>5</sup>

## II. ISSUES

5. Robust economic growth has led to significant rise in greenhouse gas (GHG) emissions in the Asia and Pacific region, with Asia's share of global GHG emissions projected to increase from 42.8% in 2010 to 51.2% by 2035.<sup>6</sup> The region is also highly vulnerable to the impacts of climate change, presenting new challenges for development efforts. For fulfilling ADB's vision of "an Asia Pacific free of poverty" and its mission to reduce poverty, improve living conditions, and quality of life will be impossible without sustained efforts to mitigate climate change.

6. Enormous amount of investment is required to help developing countries transit to a low-carbon path. According to the International Energy Agency, the mitigation costs for developing

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<sup>1</sup> Then called the Carbon Market Initiative.

<sup>2</sup> ADB. 2006. *Technical Assistance for Preparing Clean Energy Projects Eligible for the Clean Development Mechanism*. Manila; ADB. 2007. *Technical Assistance for the Implementation of the Technical Support Facility under the Carbon Market Initiative*. Manila; ADB. 2012. *Technical Assistance for Supporting the Use of Carbon Financing to Promote Green Growth in Asia and the Pacific*. Manila.

<sup>3</sup> This includes (i) Thailand's interest in capacity building support for developing its domestic emission trading scheme (ETS), and (ii) informal consultations with the designated national authorities of 10 DMCs held in Manila on 30 September 2015.

<sup>4</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>5</sup> The TA first appeared in the business opportunities section of ADB's website on 22 October 2015.

<sup>6</sup> ADB. 2013. *Energy Outlook for Asia and the Pacific*. Manila.

countries are expected to be \$140 billion–\$175 billion per year by 2030. In 2010, developed countries committed to mobilize climate finance of \$100 billion a year for developing countries by 2020. The Climate Policy Initiative estimates that of the \$331 billion of climate finance in 2013, about \$34 billion flowed from developed to developing countries, leaving a gap of about \$70 billion.

7. It is critical that all possible channels of financing including policy instruments such as carbon market mechanisms are utilized to close the gap. Given that market mechanisms such as the Clean Development Mechanism (CDM) have been successful in mobilizing carbon finance to support mitigation actions, there is a significant support for the use of market mechanisms. As carbon markets in the region evolve beyond CDM, there is a need to maintain and further build institutional capacities to ensure their growth and enhanced effectivity.

8. At the 20th Conference of the Parties in December 2014, the parties agreed to provide their Intended Nationally Determined Contributions which represent initial pledges on what countries will do to reduce GHG emissions under a future international agreement.<sup>7</sup> These will form the basis for talks at the 21st Conference of the Parties in Paris in December 2015 and will be the critical foundation upon which future carbon markets can be built. To date, 127 countries have made pledge submissions to the United Nations Framework Convention on Climate Change, with more than 86% of global GHG emissions covered. The need to mobilize additional climate finance is even more pressing now that the developing countries are expected to meet their GHG emission reduction targets as communicated in their Intended Nationally Determined Contributions.

9. Recognizing the importance of market mechanisms, several DMCs are considering designing and implementing domestic emission trading schemes (ETSs) to meet their GHG emission reduction ambitions. The People's Republic of China has launched carbon markets in five cities and two provinces, as pilot schemes for a national ETS from 2017.<sup>8</sup> Other countries including Thailand and Viet Nam have expressed interest in developing their domestic ETSs. Harmonizing and interlinking such emerging ETSs will be required to facilitate market liquidity and enhance the economic efficiency of carbon markets in Asia and the Pacific.

10. The lengthy and complex global climate negotiations and the combination of existing and emerging carbon markets and mechanisms are making matters increasingly intricate for DMCs. Developing new markets and mechanisms is a complex task and requires significant preparation and strong building blocks. Multilateral development institutions such as ADB therefore need to play a bridging and enabling leadership role to support DMCs in building institutional expertise, optimizing market opportunities, and maintaining momentum for low carbon development in the region.

11. Successful development and implementation of carbon market mechanisms are likely to spur economic activities in Asia and the Pacific, leading to opportunities for ADB in areas such as renewable energy, energy efficiency, and low-carbon transport. New carbon markets will also help ADB meet its operational targets by generating demand for projects using climate-friendly

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<sup>7</sup> United Nations Framework Convention on Climate Change. Intended Nationally Determined Contributions. <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>

<sup>8</sup> The seven pilots—in Beijing, Tianjin, Shanghai, Chongqing, Shenzhen, Hubei province, and Guangdong province—were put into operation in 2013–2014. While these pilot schemes are similar, there are differences in design between them. Since the first transaction was carried out in Shenzhen, the pilot systems have achieved a cumulative transaction volume of 11.8 million tons with a trading value of CNY450 million.



technologies and enhancing internal rates of return for such investments. The development of new markets and mechanisms is expected to provide incentives for the transfer of low-carbon technologies and technical expertise to DMCs. This will also present opportunities for ADB to cooperate with its international development partners in providing carbon finance and other cofinancing support, enabling knowledge support for green growth in Asia and the Pacific.

### III. THE CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

#### A. Impact and Outcome

12. The impact of the TA will be participating DMCs in Asia and the Pacific effectively transition to low-carbon growth.<sup>9</sup> The outcome of the TA will be that the knowledge, understanding, and use of existing and new carbon markets and mechanisms by DMCs will be enhanced.

#### B. Methodology and Key Activities

13. The TA aims to help DMCs pursue their national GHG emission reduction ambitions through effective participation in carbon markets. The TA will provide capacity building support to participating DMCs through enhanced access to information, knowledge sharing, and technical support. The capacity building activities will include trainings, workshops, conferences, seminars, and direct consultation support to DMC governments, institutions, and project developers.<sup>10</sup> The TA will rely on individual consultants working with and advising stakeholders.

14. The TA requires flexibility in terms of the DMCs that are supported for individual outputs and the specific capacity building activities each of the DMCs will require in order to appropriately respond to the evolving international climate change architecture and take advantage of existing as well as emerging markets and mechanisms. The TA will respond to the needs of DMCs by (i) supporting the development of domestic ETSs and facilitating linkages among ETSs where possible; (ii) building the capacities of DMCs to participate in new market mechanisms while providing continued support to existing carbon markets and maximizing the transfer of knowledge and skills to the new mechanisms; (iii) facilitating climate change action by nonstate actors such as cities, regions, private companies, and investors; and (iv) supporting cooperation among DMCs for learning from each other's experiences. The TA has the following three outputs:

15. **Output 1: Development and implementation of domestic emissions trading schemes and their linkages facilitated.** The TA will provide capacity building support to DMCs interested in developing their domestic ETS and/or linking their domestic ETS to other national or regional ETSs in the future. The TA will facilitate knowledge sharing among various DMCs on

<sup>9</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila; ADB. 2013. *Environment Operational Directions, 2013–2020: Promoting Transitions to Green Growth in Asia and the Pacific*. Manila.

<sup>10</sup> The proposed activities under the TA will have long-lasting benefits and will continue to assist DMCs after the TA has been completed. Support provided in the design and implementation of domestic ETSs will continue to provide incentives for greenhouse gas mitigation activities beyond the length of the TA, and also facilitate possible interlinking for the development of a much larger market in the future. New markets and mechanisms facilitated under the TA will continue to support the respective DMCs in achieving their policy ambitions for achieving emission reductions, and also mobilize new carbon finance. Similarly, improving the capacity of stakeholders to manage their CDM projects will enhance the likelihood that these projects continue to perform and generate certified emission reductions until the end of their crediting period and beyond.

the design and implementation of domestic ETSs, including lessons from operational ETSs. To support development of domestic ETSs and potential links among ETSs in the future, outreach activities such as focused consultations, capacity building workshops, and knowledge products will be carried out. The countries to be supported will be identified through consultations.<sup>11</sup>

**16. Output 2: Development of initiatives and programs in developing member countries for new carbon markets and mechanisms enhanced.** The TA will contribute to low-carbon development in Asia and the Pacific through its support for the development of new carbon markets and mechanisms. ADB will closely coordinate with DMCs to identify and respond to their particular requirements, while guiding activities to maximize possibilities for DMCs under new carbon markets and mechanisms and respond to ongoing developments in international and domestic climate change architecture. ADB will provide capacity building, focusing on assisting DMCs to maximize opportunities under new markets and mechanisms. The TA will also support transfer of methodologies and tools developed under the CDM to other low-carbon development initiatives. The potential applications may include those under the Framework for Various Approaches<sup>12</sup> under the United Nations Framework Convention on Climate Change process, as well as other carbon market initiatives. The TA will also seek to leverage work under existing ADB projects and programs as appropriate.

**17. Output 3: Stakeholder's capacity to manage clean development mechanism projects and access to such tools in developing member countries enhanced.** Support will focus on both existing CDM projects and the transfer of knowledge and skills developed under the CDM to new market mechanisms. Specifically, the TA will (i) support successful implementation of CDM projects through capacity building and direct project support for measuring, reporting, and verifying, and issuing certified emission reductions; (ii) support development of tools,<sup>13</sup> standardized baselines, and methods for enhancing the application of the CDM; and (iii) undertake capacity building workshops, conferences, and seminars on effective measuring, reporting, and verifying as well as other relevant carbon market issues. The TA will prioritize support for greenhouse gas mitigation activities hosted in least-developed countries and other countries that have been underrepresented in carbon markets to date.

18. The major risks to the TA are identified in the design and monitoring framework (Appendix 1). To minimize these risks, under the TA (i) international climate negotiations and the emerging international climate policy architecture will be closely monitored; (ii) a flexible project design will be adopted to assist DMCs in enhancing their capacity to respond to new climate architecture; and (iii) there will be participation in the design and development and taking advantage of emerging new markets and mechanisms. Capacity building under the TA should assist DMCs to make well-informed choices to overcome challenges presented by the prevailing weak carbon markets by actively participating in the design, development, and expansion of new emerging carbon markets.

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<sup>11</sup> Thailand has expressed interest in capacity building support for developing a domestic ETS for which a possible dialogue can be initiated through the Regional Cooperation and Operations Coordination Division of the Southeast Asia Regional Department for further engagement and enhancing awareness in this regard.

<sup>12</sup> The Framework for Various Approaches is a set of components and rules that will ensure that all approaches used for mitigation meet certain standards, especially for environmental integrity. The framework will ensure that mitigation approaches are integrated and receive recognition for United Nations Framework Convention on Climate Change compliance.

<sup>13</sup> CDM tools are used to calculate, determine, demonstrate, estimate, identify, and/or test information on greenhouse gas emission reduction projects. Examples include (i) a tool to calculate project or leakage carbon dioxide emissions from fossil fuel combustion, and (ii) a tool to determine the baseline efficiency of thermal or electric energy generation systems.

### C. Cost and Financing

19. The TA is estimated to cost \$1,500,000, of which \$1,432,000 will be financed on a grant basis by the Government of Finland and \$68,000 will be financed on a grant basis by the Government of Luxembourg, and administered by ADB. The cost estimates and financing plan are provided in Appendix 2.

### D. Implementation Arrangements

20. ADB will be the executing agency for the TA. The Climate Change and Disaster Risk Management Division, Sustainable Development and Climate Change Department (SDCC) will implement the TA in coordination with regional departments to ensure that the TA complements current and planned efforts of DMCs to support their national climate change actions. SDCC will also work with partner organizations in supporting DMCs to accomplish their capacity development objectives.<sup>14</sup> The TA will be implemented over 24 months, beginning in January 2016 until December 2017.<sup>15</sup>

21. The TA will require about 36 person-months of international consulting services and 90 person-months of national consulting services. Consultants will be recruited individually, in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). The outline terms of reference for the consultants are in Appendix 3. SDCC will set up a team of staff to regularly manage consultants, administer contracts and consolidate their outputs.

22. Purchase of equipment (i.e., computer hardware and software) will be undertaken by ADB in accordance with its Procurement Guidelines (2015, as amended from time to time) and in coordination with the Office of Information Systems and Technology and Office of Administrative Services. After TA completion, any procured equipment will be disposed of in compliance with the project administration instructions on administering grant-financed TA. Disbursements under the TA will be made in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Complementary inputs are expected to be provided by host governments and organizations, including provision of support staff at regional and national consultations and capacity building workshops.

## IV. THE PRESIDENT'S DECISION

23. The President, acting under the authority delegated by the Board, has approved (i) ADB administering technical assistance not exceeding the equivalent of \$1,432,000 to be financed on a grant basis by the Government of Finland, and (ii) ADB administering technical assistance not exceeding the equivalent of \$68,000 to be financed on a grant basis by the Government of Luxembourg for Supporting Low-Carbon Development in Asia and the Pacific through Carbon Markets, and hereby reports this action to the Board.

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<sup>14</sup> The use of partnerships will be undertaken by ADB in accordance with *Operations Manual* section on cooperation arrangements for development partnership (OM E3/ BP) and guided by the memorandum for heads of departments on Clarification on Cooperation Arrangements for Development Partnerships, 7 August 2014.

<sup>15</sup> As the TA is time-bound and has limited financial resources, ADB will ensure that the TA complements other stakeholders' capacity building activities in DMCs. Lessons learned will be accessible to interested parties internally and externally to facilitate and support future capacity development efforts.

### DESIGN AND MONITORING FRAMEWORK

<b>Impact the Technical Assistance is Aligned with</b>			
Participating DMCs in Asia and the Pacific effectively transitioned to low-carbon growth. (Midterm Review of Strategy 2020 and Environmental Operational Directions 2013–2020) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<b>Outcome</b>			
Knowledge, understanding, and use of existing and new carbon markets and mechanisms by DMCs enhanced	By 2018 a. At least 10 additional CDM projects accomplish issuance of CERs (2015 baseline: nine CDM projects)  b. Implementation of domestic emissions trading scheme in at least one DMC initiated (2015 baseline: 0)  c. At least two new carbon markets and/or mechanisms in DMCs developed (2015 baseline: 0)	a. CDM registry, UNFCCC website ( <a href="http://cdm.unfccc.int/Projects/projsearch.html">http://cdm.unfccc.int/Projects/projsearch.html</a> ) updated continuously  b–c. TA progress report	Persistently weak carbon markets and insufficient incentives for DMCs to undertake greenhouse gas emission reduction activities because of lack of progress on international climate negotiations and agreement(s)
<b>Outputs</b>			
1. Development and implementation of domestic emissions trading schemes and their linkages facilitated	By end 2017 1a. A domestic emissions trading scheme conceptualized by at least one additional DMC (2015 baseline: 1)  1b. A domestic emissions trading scheme developed in at least one additional DMC (2015 baseline: 1)	1a. TA for Supporting the Use of Carbon Financing to Promote Green Growth in Asia and the Pacific. Progress Report (July 2015)  1b. TA progress reports	DMCs may realign their priorities in regard to development of a domestic ETS in view of their perceived economic benefits and/or institutional frameworks.
2. Development of initiatives and programs in DMCs for new carbon markets and mechanisms enhanced	2a. Design of new carbon markets and mechanisms in at least two DMCs supported (2015 baseline: 0)  2b. At least 150 additional carbon market experts, regulators, and practitioners in DMCs trained to develop new	2a. Relevant registries and information sources to be identified during the course of the TA dependent on the carbon market  2b–2c. Training workshop course evaluation survey reports to be produced by the	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	<p>carbon markets and mechanisms (2015 baseline: 0)</p> <p>2c. 65% of the trained stakeholders reporting enhanced knowledge (2015 Baseline: 0)</p>	<p>TA team following capacity building events mechanism</p>	
<p>3. Stakeholder's capacity to manage CDM projects and access to CDM tools in DMCs is enhanced</p>	<p>3a. At least 150 additional stakeholders in DMCs trained to implement CDM projects (2013–2015 cumulative baseline: 200)</p> <p>3b. At least 75% of the trained stakeholders reporting improved skills to manage CDM projects (2015 baseline: 0)</p> <p>3c. At least one tool, standardized baseline or methodology for enhancing the application of the CDM in accessing emerging carbon markets and mechanisms developed (2015 baseline: 0)</p>	<p>3a–3b. Training workshop course evaluation survey reports to be produced by the TA team following capacity building events</p> <p>3c. UNFCCC website (<a href="https://cdm.unfccc.int/">https://cdm.unfccc.int/</a> updated continuously)</p>	
<p><b>Key Activities with Milestones</b></p> <p><b>1. Development and implementation of domestic emissions trading schemes and their linkages facilitated</b></p> <p>1.1 Identify DMCs for providing support on the design and implementation of domestic ETSs in consultation with ADB's regional departments (Q1 2016)</p> <p>1.2 Obtain confirmation of no-objection in writing from governments of DMCs identified for proposed support (Q1 2016)</p> <p>1.3 Review similar TA projects implemented in ADB DMCs to ensure synergies with previous interventions (Q1 2016)</p> <p>1.4 Design and develop a framework for knowledge sharing among DMCs on the design, development, and implementation of domestic ETSs (Q1 2016)</p> <p>1.5 Submit recommendations to the DMCs on the design and implementation of domestic ETSs (Q2 2017)</p> <p>1.6 Develop a compendium of findings, experiences, suggestions, and recommendations for the design, implementation, and linkage of domestic ETSs (Q3 2017)</p> <p><b>2. Development of initiatives and programs in DMCs under new carbon markets and mechanisms enhanced</b></p> <p>2.1 Identify DMCs' specific requirements for support in developing new carbon markets and mechanisms in consultation with ADB's operations departments (Q2 2016)</p> <p>2.2 Review similar TA projects implemented in ADB DMCs to ensure synergies with previous interventions (Q1 2016)</p> <p>2.3 Obtain confirmation of no-objection in writing from governments of DMCs identified for proposed support (Q1 2016)</p>			

<p><b>Key Activities with Milestones</b></p> <p>2.4 Submit recommendations to the DMCs on the design and implementation framework for developing new carbon markets and mechanisms (Q2 2017)</p> <p>2.5 Organize three capacity building workshops on the design and development of new carbon markets and mechanisms (Q3 2017)</p> <p>2.6 Conduct post-workshop surveys after every capacity building workshop (Q3 2017)</p> <p><b>3. Stakeholders' capacity to manage CDM projects and access to CDM tools in DMCs is enhanced</b></p> <p>3.1 Identify DMCs and stakeholders that need capacity building support for the implementation of CDM projects and issuance of CERs (Q1 2016)</p> <p>3.2 Obtain confirmation of no-objection in writing from governments of DMCs identified for proposed support (Q1 2016)</p> <p>3.3 Review similar TA projects implemented in ADB DMCs to ensure synergies with previous interventions (Q1 2016)</p> <p>3.4 Evaluate options for tools for identified DMCs and/or sectors in the region (Q1 2016)</p> <p>3.5 Submit draft tool to UNFCCC (Q2 2017)</p> <p>3.6 Complete at least three capacity building workshops on MRV, implementation of CDM projects, and issuance of CERs (Q3 2017)</p> <p>3.7 Conduct post-workshop surveys after every capacity building workshop (Q3 2017)</p> <p>3.8 Selected projects and POAs accomplish issuance of CERs and/or emission reductions (Q4 2017)</p>
<p><b>Inputs</b></p> <p>Government of Finland: \$1,432,000 Government of Luxembourg: \$68,000</p>
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable.</p> <p>ADB = Asian Development Bank; CDM = clean development mechanism; CER = certified emission reduction; DMC = developing member country; ETS = emission trading scheme; MRV = measuring, reporting, and verification; POAs = program of activities; Q = quarter; TA = technical assistance; UNFCCC = United Nations Framework Convention on Climate Change.</p> <p><sup>a</sup> ADB. 2014. <i>Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific</i>. Manila; ADB. 2013. <i>Environment Operational Directions, 2013–2020: Promoting Transitions to Green Growth in Asia and the Pacific</i>. Manila.</p> <p>Source: Asian Development Bank.</p>

## COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Amount
<b>A. Government of Finland<sup>a</sup></b>	
1. Consultants	
a. Remuneration	
i. International consultants	535.0
ii. National consultants	435.0
b. International and local travel	80.0
c. Reports and communications	4.0
2. Equipment <sup>b</sup>	5.0
3. Workshops, training, seminars, and conferences <sup>c</sup>	288.0
a. Representation <sup>d</sup>	4.0
4. Miscellaneous administration and support costs	3.0
a. Publications, subscriptions, and information services <sup>e</sup>	18.0
5. Contingencies	60.0
<b>Subtotal (A)</b>	<b>1,432.0</b>
<b>B. Government of Luxembourg<sup>a</sup></b>	
1. Consultants	
a. Remuneration	
i. International consultants	15.0
ii. National consultants	15.0
b. International and local travel	5.0
c. Reports and communications	1.0
2. Equipment <sup>b</sup>	1.0
3. Workshops, training, seminars, and conferences <sup>c</sup>	23.0
a. Representation <sup>d</sup>	1.0
4. Miscellaneous administration and support costs	1.0
a. Publications, subscriptions, and information services <sup>e</sup>	2.0
5. Contingencies	4.0
<b>Subtotal (B)</b>	<b>68.0<sup>f</sup></b>
<b>Total</b>	<b>1,500.0</b>

<sup>a</sup> Administered by the Asian Development Bank (ADB). This amount also includes ADB's administration fee, audit costs, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant.

<sup>b</sup> Includes computers, software, accessories, and other small equipment. All procurement under the technical assistance (TA) will be carried out in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). Upon TA completion, all equipment procured under the TA will be turned over or disposed of in accordance with ADB's project administration instruction (ADB. 2013. Administering Grant-Financed Technical Assistance Projects. *Project Administration Instructions*. PAI 5.09. Manila).

<sup>c</sup> Includes honorarium and travel costs for resource persons and facilitators, participants' travel costs, staff travel costs as resource persons and/or speakers, travel and related costs for secretariat and administrative support services, and administrative logistical costs.

<sup>d</sup> Representation (to include alcoholic beverages, i.e., wine served during major workshops and / or conferences) per 26 June 2013 memo from Strategy and Policy Department to Heads of Departments, allowing costs of representation to be charged to regional technical assistance or technical assistance.

<sup>e</sup> Subscription to database and cost of hiring manuscript editor.

<sup>f</sup> Actual available savings is \$68,013.03 as of 31 August 2015; subject to change due to interest that may be earned. Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. International Consultants

1. **Carbon market expert** (18 person-months). The carbon market expert will have (i) at least a master's degree in a field relevant to climate change mitigation such as energy, environment, or transport; (ii) professional experience of around 10 years, of which around 6 years should be on Clean Development Mechanism (CDM) project development in Asia and the Pacific; (iii) knowledge of international climate negotiations, climate change policies, and associated institutional and regulatory frameworks in relation to promoting clean energy and other CDM-eligible projects; (iv) a proven track record in CDM project development and other carbon market-related work in Asia and the Pacific; and (v) excellent oral and written communication skills in English. The specific tasks of the carbon market expert will include assisting the team leader to

- (i) keep track of international climate negotiations, opportunities for carbon finance, developments in the carbon markets, and other similar carbon market initiatives, and help the team leader disseminate information within the Asian Development Bank (ADB) and developing member countries (DMCs) through briefing notes;
- (ii) monitor climate change policies, the regulatory framework, and associated institutional capacity of ADB's DMCs for meeting their greenhouse gas emissions reduction ambitions;
- (iii) provide capacity building support to stakeholders in pursuing the CDM process, procedures, and documentary requirements to effectively manage their CDM projects and take advantage of carbon finance opportunities;
- (iv) develop tools including standardized baselines, new methodologies, amendment of existing methodologies for enhancing access to CDM, and other emerging carbon markets and mechanisms in Asia and the Pacific;
- (v) provide necessary assistance to ADB's DMCs in strengthening their institutional capacity to promote and support design and implementation of greenhouse gas emission reduction projects;
- (vi) provide necessary assistance for CDM projects and programs of activities (POAs) hosted in ADB's DMCs in obtaining host country approval, developing the project design document, CDM validation, registering with the United Nations Framework Convention on Climate Change (UNFCCC), implementing the monitoring plan, preparing a monitoring report, verification, and issuance of certified emission reductions by the UNFCCC;
- (vii) assist ADB in identifying particular requirements of ADB's DMCs after 2015 and provide support in utilizing benefits under such new markets and mechanisms by developing the necessary design and implementation framework guidelines and tools;
- (viii) support low-carbon development initiatives within Asia and the Pacific such as Nationally Appropriate Mitigation Actions, Framework of Various Approaches, specific greenhouse-gas-related schemes, renewable energy certificates, energy efficiency certificates, and green vehicle credits where greenhouse gas emission reduction estimation and/or measuring, reporting, and verification tools of the CDM can be utilized; and
- (ix) perform any other carbon-market-related work assigned by the team leader and/or director of the Sustainable Development and Climate Change Department (SDCC) from time to time.



2. **Emission trading scheme expert** (18 person-months). The emission trading scheme (ETS) expert will have (i) a master's degree in a field relevant to climate change mitigation such as energy, environment, or transport; (ii) professional experience of around 15 years, of which around 10 years should be on the design, implementation, and practice in areas of ETSs; (iii) knowledge of international climate negotiations, climate change policies, and associated institutional and regulatory frameworks in relation to initiatives being undertaken by various parties to develop domestic ETSs or their linkages to other ETSs; (iv) suitable knowledge of the legal and regulatory matters pertaining to ETSs; (v) a proven track record of design and implementation of ETSs and other carbon market development-related work; and (vi) excellent oral and written communication skills in English. The specific tasks of the ETS expert will include assisting the team leader to

- (i) monitor international climate negotiations and developments in the areas of new carbon markets; development of domestic ETSs, including their linkages and other similar carbon market initiatives; and disseminate information within ADB and DMCs through briefing notes and newsletters;
- (ii) monitor developments on the existing and emerging ETSs in Asia and the Pacific and other regions;
- (iii) evaluate the rationale, challenges, and policy implications for establishing domestic ETSs in ADB's DMCs, including barrier analysis for interlinking various domestic ETSs in Asia and the Pacific;
- (iv) provide technical and capacity building support for the design and implementation of domestic ETSs in DMCs interested in developing domestic schemes in Asia and the Pacific;
- (v) provide necessary support to DMCs on emissions-trading-related matters, including (a) facilitating policy and technical dialogues among interested countries, and (b) carrying out feasibility studies on regional interlinking of domestic ETSs;
- (vi) design and implement capacity building activities including workshops and training courses on the design and implementation of domestic ETSs and their linkages for various stakeholders in Asia and the Pacific;
- (vii) provide technical support for developing links between various domestic ETSs in Asia and the Pacific; and
- (viii) perform any other carbon-market-related work assigned by the team leader and/or director of SDCC from time to time.

## B. National Consultants

3. **Carbon market expert** (21 person-months). The carbon market expert will have (i) a master's degree in a field relevant to climate change mitigation such as energy, environment, or transport; (ii) professional experience of around 6 years, of which around 4 years should be on CDM project development in Asia and the Pacific; (iii) up-to-date knowledge of international climate negotiations, climate change policies, and associated institutional and regulatory frameworks in relation to promoting clean energy and other CDM-eligible projects; (iv) a proven track record in CDM project development and other carbon market development-related work in Asia and the Pacific; and (v) excellent oral and written communication skills in English. The specific tasks of the carbon market expert will include assisting the team leader to

- (i) prepare the initial desktop screening report for greenhouse gas emission reduction projects and make project-specific recommendations for utilizing carbon finance in consultation with the team leader;

- (ii) provide capacity building support to CDM project developers and other stakeholders in the assigned DMCs in pursuing the CDM process, procedures, and documentary requirements to effectively manage their CDM projects and POAs and take advantage of carbon finance opportunities;
- (iii) develop tools including standardized baselines and new methodologies and amend existing methodologies for enhancing access to the CDM and other emerging new carbon markets and/or mechanisms in the assigned DMCs;
- (iv) provide necessary assistance to the assigned DMCs in strengthening their institutional capacity to promote and support design and implementation of greenhouse gas emission reduction projects;
- (v) provide necessary assistance for CDM projects and POAs hosted in the assigned DMCs in obtaining host country approval, developing the project design document, CDM validation, registering with the UNFCCC, implementing the monitoring plan, preparing a monitoring report, verification, and issuance of certified emission reductions by the UNFCCC;
- (vi) assist ADB in identifying particular requirements of specific DMCs after 2015 and provide support in utilizing benefits under such new markets and mechanisms by developing the necessary design and implementation framework guidelines and tools;
- (vii) support low-carbon development initiatives such as Nationally Appropriate Mitigation Actions, Framework of Various Approaches, specific greenhouse-gas-related schemes, renewable energy certificates, energy efficiency certificates, and green vehicle credits in the assigned DMCs; and
- (viii) perform any other carbon-market-related work assigned by the team leader and/or the director of SDCC from time to time.

4. **Emission trading schemes expert** (21 person-months). The ETS expert will have (i) a master's degree in a field relevant to climate change mitigation such as energy, environment, or transport; (ii) professional experience of around 6 years, of which around 3 years should be on the design, implementation, and practice in areas of ETSs; (iii) knowledge of international climate negotiations, climate change policies, and associated institutional and regulatory frameworks in relation to initiatives being undertaken by various parties to develop domestic ETSs; (iv) suitable knowledge of the legal and regulatory matters pertaining to ETSs; (v) a proven track record in the design and implementation of ETSs and other carbon market development-related work; and (vi) excellent oral and written communication skills in English. The specific tasks of the ETS expert will include assisting the team leader to

- (i) monitor international climate negotiations and developments in the areas of new carbon markets, develop domestic ETSs including their linkages and other similar carbon market initiatives, and assist the team leader in disseminating information within ADB and DMCs through briefing notes and newsletters;
- (ii) monitor developments on existing and emerging ETSs in Asia and the Pacific;
- (iii) provide technical and capacity building support for the design and implementation of domestic ETSs in the assigned DMCs;
- (iv) provide necessary support to the assigned DMC on emissions-trading-related matters including (a) facilitating policy and technical dialogues among interested countries, and (b) carrying out feasibility studies on regional interlinking of domestic ETSs;
- (v) design and implement capacity building activities including workshops and training courses on the design and implementation of domestic ETSs and their links for various stakeholders in the assigned DMC; and

- (vi) perform any other carbon-market-related work assigned by the team leader and/or the director of SDCC from time to time.

5. **Technical assistance coordinator** (24 person-months). The coordinator will ideally have 10–12 years of experience in project administration and must have a university degree in a related field. He or she should have a proven coordination track record involving multiple stakeholders and have a general understanding of carbon markets and their processes. The coordinator will be a national consultant and be based at ADB headquarters in Manila. The specific tasks of the TA coordinator will include assisting the team leader to

- (i) coordinate team activities and consolidate individual outputs;
- (ii) support coordination and integration between the TA and the other activities of the Carbon Market Program and the various teams working under it;
- (iii) coordinate activities of TA subprojects, ensuring their links at the national level;
- (iv) assist other subproject teams in coordination and liaison activities;
- (v) prepare and update the TA overall work plan and budget;
- (vi) organize and participate in meetings, workshops, and training and provide assistance in report and proceedings preparation;
- (vii) create and manage a project database and records;
- (viii) prepare progress reports, briefing notes, correspondence, and other documents that may be required by ADB and partners;
- (ix) disseminate information and organize outreach activities; and
- (x) perform any other carbon-market-related work assigned by the team leader and/or director of SDCC from time to time.

6. **Administrative assistant** (24 person-months). The administrative assistant will ideally have around 12 years of experience in providing administrative support and should have a university degree and or extensive formal training in a related field. He or she should have a proven track record of supporting multiple stakeholders and have a general understanding of carbon markets. The specific tasks of the administrative assistant will include

- (i) providing administrative support to the TA team;
- (ii) ensuring the smooth flow of documents and communications between Technical Support Facility and other divisions and departments in ADB, including concerned resident missions;
- (iii) assisting in arranging the team's appointments, meetings, missions, travel, and accommodations including arrangements for meeting rooms, equipment, and information technology services, and administrative support for overall fund operations;
- (iv) assisting the team in preparing reports and presentations;
- (v) assisting in managing proper filing and monitoring of TA documents and other ADB files; ensuring easy retrieval of files, data, or information as necessary; and providing secretarial support and assistance as necessary; and
- (vi) performing any other carbon-market-related work assigned by the team leader and/or director of SDCC from time to time.