



Technical Assistance Report

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Supporting the Use of Carbon Financing from New Carbon Market Mechanisms to Promote Green Growth in Asia and the Pacific (Financed by the Japan Fund for Poverty Reduction)

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Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
CDM	–	clean development mechanism
COP	–	Conference of the Parties
DMC	–	developing member country
TA	–	technical assistance
UNFCCC	–	United Nations Framework Convention on Climate Change

NOTE

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

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I. INTRODUCTION

1. The Asian Development Bank (ADB) established its Carbon Market Program in 2006 (then called the Carbon Market Initiative). The Carbon Market Program has three components: the Asia Pacific Carbon Fund (APCF), Future Carbon Fund (FCF), and Technical Support Facility (TSF). The TSF provides capacity building, due diligence, documentation, and implementation support for greenhouse gas (GHG) mitigation activities. The TSF commenced supporting GHG mitigation efforts through two technical assistance (TA) projects: (i) Preparing Clean Energy Projects Eligible for the Clean Development Mechanism¹, and (ii) Implementation of the Technical Support Facility under the Carbon Market Initiative². Both TA projects were designed to assist low-carbon projects in developing member countries (DMCs) benefit from a single regulated carbon market mechanism—the clean development mechanism (CDM). The successful implementation of these TA projects allowed ADB to scale up from less than 10 CDM projects in 2006 to over 100 projects seeking to register with the United Nations Framework Convention on Climate Change (UNFCCC) in 2012. A follow-on TA, Supporting the Use of Carbon Financing to Promote Green Growth in Asia and the Pacific, was approved by the ADB Board of Directors in November 2012.³ Under this TA, ADB continues to support DMCs in benefiting from existing carbon markets, primarily through CDM-eligible projects, and development of domestic emission trading schemes, including their linkages. The experience and lessons learned from the implementation of previous TAs especially in building institutional capacities and imparting technical knowledge on carbon market instruments will help ADB in supporting new carbon market mechanisms and contribute to its ongoing efforts in mitigating the challenges of climate change.

2. Under Strategy 2020, ADB is responding to climate change as part of the broader agenda of promoting environmentally sustainable growth in Asia and the Pacific.⁴ Based on the midterm review of Strategy 2020⁵, during 2014–2020, ADB will continue its support for tackling climate change and will, among other things, help DMCs access other sources of environment and climate finance by increasing its engagement with international financing mechanisms such as the Green Climate Fund and new carbon market mechanisms. ADB's Addressing Climate Change in Asia and the Pacific: Priorities for Action (approved in April 2010) also places emphasis on carbon market development as a means to help DMCs mobilize additional financing to support climate change mitigation activities.⁶ Most of the country partnership strategies prepared for the past few years identify climate change as a development issue and incorporate actions to address it.

3. There is growing interest from DMCs for new carbon market mechanisms, such as bilateral mechanisms, as a potential source of carbon financing and technology transfer to promote green growth. The existing regulated international carbon markets are defined by Kyoto mechanism tools - CDM, Joint Implementation, and Emission Trading. However, since the end of the first commitment period of Kyoto Protocol in 2012, new carbon market mechanisms such as domestic emission trading scheme, framework of various approaches, bilateral crediting

¹ ADB. 2006. *Technical Assistance for Preparing Clean Energy Projects Eligible for the Clean Development Mechanism*. Manila.

² ADB. 2007. *Technical Assistance for the Implementation of the Technical Support Facility under the Carbon Market Initiative*. Manila.

³ ADB. 2012. *Technical Assistance for Supporting the Use of Carbon Financing to Promote Green Growth in Asia and the Pacific*. Manila.

⁴ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

⁵ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

⁶ ADB. 2010. *Addressing Climate Change in Asia and the Pacific: Priorities for Action*. Manila.

mechanisms, nationally appropriate mitigation actions, and sectoral crediting mechanism are being designed and implemented by various countries. Some of the countries are also working on implementing carbon tax regimes, renewable energy certificates, energy efficiency certificates, electric vehicle credits, and other sector-specific schemes which are further contributing to the emerging new carbon market mechanisms.

4. International carbon markets are currently facing a combination of challenges and opportunities due to both international and domestic factors. Since mid-2011, carbon markets have been facing reduced demand because of the economic slowdown in major demand centers (mainly the European Union), the oversupply of international offsets, and the uncertainty relating to binding international climate agreements. While the European Union Emissions Trading Scheme continues to be the largest trading scheme, a number of other domestic and regional carbon markets are emerging, such as the Nusantara Carbon Scheme in Indonesia, the Thailand Carbon Offsetting Program, Thailand Voluntary Emission Reduction Program, Kazakhstan's Mandatory Emissions Trading Scheme, and the Tokyo Cap-and-Trade Program.

5. The proposed TA will help promote green growth in ADB DMCs through supporting the use of carbon financing. The initial focus will be on priority countries in South and Southeast Asia such as Bangladesh, Indonesia, the Lao People's Democratic Republic, the Philippines, Thailand, and Viet Nam, with a possibility to expand to other DMCs based on their need and availability of funds. These priority countries have been selected based on their strong interest and ongoing efforts in implementing new carbon market mechanisms such as bilateral mechanisms. These DMCs conveyed their request for ADB's assistance for accessing carbon financing through bilateral mechanisms during consultation workshops and interactions with their government officials. The design and monitoring framework is in Appendix 1.⁷

II. ISSUES

6. The countries of Asia and the Pacific have a key role to play in addressing global climate change issues. Because of rapid economic growth, Asia and the Pacific is becoming a major source of greenhouse gas emissions, largely because of the rapidly increasing demand for energy. The carbon dioxide emissions in Asia and the Pacific region grew by more than 131% between 1990 and 2010.⁸ Asia and the Pacific region's share in aggregate global carbon dioxide emissions are projected to increase from 42.8% in 2010 to 51.1% by 2035 (footnote 8). It is clear that decoupling the region's growth from carbon emissions is pivotal in the global efforts to mitigate climate change.

7. The magnitude of the challenge is daunting, and enormous investment will be required to meet the growing needs of developing countries while transitioning to a low-carbon path. According to ADB, the Asia and the Pacific region will require a cumulative investment of about \$11.7 trillion (2010–2035) in order to meet its business as usual energy demand. The region will however require enhanced investments of \$19.9 trillion (2010–2035) to deploy advanced energy efficient and low-carbon-emitting technologies (footnote 8). There is a need to mobilize financial resources from all possible channels, including carbon market mechanisms. According to a World Bank report, Mapping Carbon Pricing Initiatives, emerging pricing schemes can make an important dent in greenhouse gas emissions. Countries with implemented and scheduled

⁷ The TA first appeared in the business opportunities section of ADB's website on 9 April 2014.

⁸ ADB. 2013. *Energy Outlook for Asia and the Pacific*. Manila.

carbon pricing mechanisms (in 2013) emit the equivalent of roughly 10 gigatons of carbon dioxide per year, equal to about 20% of global emissions.⁹

8. At its 18th session held in 2012, the UNFCCC Conference of the Parties (COP18) established a timetable for a universal climate change agreement covering all countries from 2020.¹⁰ In addition, COP18 decided to further elaborate a new market-based mechanism under the UNFCCC, and a work program to develop a framework for coordinating mechanisms established under the UNFCCC and those supporting the implementation of the UNFCCC, such as nationally administered or bilateral offset programs. The decisions of COP18 and CMP8 indicate that the coexistence of the CDM and emerging mechanisms, and the combination of international and domestic trading schemes, are increasing the complexity of the carbon market. While these agreements and decisions allowed carbon markets to continue beyond 2012, they support the emergence of new carbon market mechanisms. However, ADB's DMCs will face capacity constraints in meeting the increasingly complex requirements of the new carbon markets, and will therefore need capacity building assistance to take full advantage of the new market mechanisms. Capacity building activities such as knowledge sharing and outreach events such as workshops, webinars, and resource exchanges will be very useful.

9. New international carbon market mechanisms are also expected to emerge during the ongoing second commitment period of the Kyoto Protocol. It is anticipated that these new carbon market mechanisms will include different bilateral arrangements under unique rules ("bilateral mechanisms") and crediting of greenhouse gas emission reductions on a project basis or on a whole sector basis ("sectoral crediting" or "sectoral mechanism"). Without adequate technical expertise, DMCs will have difficulty appreciating and adapting to the procedures, regulations, and other requirements of these new carbon market mechanisms.

III. THE TECHNICAL ASSISTANCE

10. This TA will help DMCs build their institutional capacities to effectively participate in, and take advantage of, bilateral mechanisms such as a joint crediting mechanism. The TA will develop required methodologies and procedures to assist DMCs in developing country specific policies and guidelines for such new mechanisms. The TA will also help DMCs evaluate the suitability of such bilateral mechanisms in view of their potential contribution to development of sustainable global carbon markets.

11. The TA will build on the success of the previous initiatives of the Technical Support Facility under the Carbon Market Program. It will continue to support DMCs and ADB's operations departments in accessing carbon finance through new carbon market mechanisms, especially from bilateral mechanisms. It may also be noted that in the initial phase of such bilateral mechanisms, ADB DMCs will require a substantial amount of support in building their capacity to develop or adapt methodologies for estimating greenhouse gas emission reductions and/or monitoring, reporting, and verification requirements under new bilateral mechanisms.

⁹ World Bank. 2013. *Mapping Carbon Pricing Initiatives: Developments and Prospects*. Washington.

¹⁰ The COP is the supreme decision-making body of the UNFCCC. The COP serves as the meeting of the Parties to the Kyoto Protocol. All Parties to the Convention are represented at the COP at which they review the implementation of the Convention. The COP meets every year, unless the Parties decide otherwise. All Parties to the Kyoto Protocol are represented at the COP serving as the Meeting of the Parties to the Kyoto Protocol (CMP), while States that are not Parties participate as observers. The CMP reviews the implementation of the Kyoto Protocol and takes decisions to promote its effective implementation. The CMP meets annually during the same period as the COP. COP18 and CMP8 took place in Doha in Qatar from 26 November to 8 December, 2012.

A. Impact and Outcome

12. The impact of the TA will be green growth and low-carbon development promoted through new carbon market mechanisms in participating DMCs in Asia and the Pacific. The outcome will be enhanced capacities of the participating DMCs for increased utilization of new carbon market mechanisms including bilateral mechanisms.

B. Methodology and Key Activities

13. The first output of the TA will be capacity building activities for institutions and local experts on new carbon market mechanisms such as bilateral mechanism. The TA will keep track of developments on the new carbon market mechanisms including relevant tools, standards, and technical guidelines so as to maintain the most updated knowledge on new carbon market mechanisms. It will identify focal institutions of participating DMCs and consult training needs to implement the new market mechanisms in particular bilateral mechanism, and train the selected institutional representatives, project developers, and local experts for enhanced access to benefits under such new mechanisms. The main targeted trainees will be policy makers, experts, and business managers of participating DMCs.

14. The second output of the TA will be direct project support under new carbon market mechanisms through requisite technical support for ADB pipeline projects so as to be eligible under such mechanisms. The TA will scrutinise ADB pipeline of projects and identify the potential eligible projects at an early stage. The TA experts will interact closely with the ADB project officers and project proponents to explore the possibilities of supporting their specific projects under new market mechanism such as bilateral mechanism for a specific ADB pipeline project. An analysis will be presented to the ADB project officers and project proponents to show the merits of joining the mechanism, requirements to be met, and steps to be taken on the process for the registration of the project under a new carbon market mechanism like bilateral mechanism.

15. The third output of the TA will be knowledge products on new carbon market mechanisms. New market mechanisms are still at developing stage. The policy makers and regulators of participating DMCs, technical and methodological experts, third party validators and project proponents will have to be trained through strong back-up of knowledge and information. The TA experts will develop knowledge products through studying and analyzing the requirements of new carbon market mechanisms, and create a database of information for wide sharing in time. The knowledge products may include policy and technical guidelines of a carbon market mechanism.

16. The TA will also have important links and synergies with the ongoing carbon market development TA, Supporting the Use of Carbon Financing to Promote Green Growth in Asia and Pacific (footnote 3), and will seek to augment ongoing initiatives by acting as a catalyst for the development of carbon markets. The TA will seek to share knowledge and information with existing non-ADB initiatives both within and outside the UNFCCC framework.

17. The major assumptions and risks are identified in the design and monitoring framework (Appendix 1). To minimize these risks, under the TA (i) developments in the international and regional arenas on climate change actions and project activities will be closely monitored; (ii) a flexible project design, including in its governance, will be adopted; (iii) a participatory and consultative approach will be adopted in project planning, design, and implementation to ensure strong ownership, and through workshops and consultations to seek inputs and views of

stakeholders during inception, implementation, and monitoring of TA activities; (iv) where necessary, formal agreements such as memoranda of understanding will be forged to define key responsibilities; and (v) existing networks will be tapped to identify and engage qualified experts for the projects.

C. Cost and Financing

18. The TA is estimated to cost \$1,500,000, which will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

19. ADB will serve as the executing and implementing agency for the TA, with the Climate Change and Disaster Risk Management Unit of the Regional and Sustainable Development Department serving as the focal point. The initial implementation period of the TA will be from June 2014 to May 2016.

20. The TA will require 30 person-months of international and 54 person-months of national individual consultant inputs. Appendix 3 provides the outline terms of reference for the consultants. In order to have specialized and/or country-specific expertise, individual consultants will be engaged. ADB will engage all consultants in accordance with its Guidelines on the Use of Consultants (2013, as amended from time to time). The procurement of equipment and other supplies will be in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). The turnover or disposal of equipment purchased under the TA will be in accordance with the relevant ADB guidelines. Disbursements under the TA will be made in accordance with the *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

21. ADB will establish a TA team comprising staff from its focal unit and other experts who will monitor TA activities and consultants' work, provide guidance, and give input and feedback on a regular basis. This unit will implement the TA in close consultation with operations departments regarding particular areas or sectors requiring assistance. The team will coordinate with regional departments during implementation of the TA to ensure that the work complements its current and planned efforts to support national climate change priorities. The TA team will also work in close coordination with other departments such as the Controller's Department, Operations Services and Financial Management Department, Office of Cofinancing Operations, and Office of the General Counsel to meet implementation requirements including funds disbursements, utilization, and reporting.

22. The team will also work and coordinate with partner organizations like UNFCCC and the Institute for Global Environmental Strategies. Lessons will be accessible to interested parties, internally and externally, to facilitate and support future capacity building efforts.

IV. THE PRESIDENT'S DECISION

23. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$1,500,000 to be financed on a grant basis by the Japan Fund for Poverty Reduction for Supporting the Use of Carbon Financing from New Carbon Market Mechanisms to Promote Green Growth in Asia and the Pacific, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Green growth and low-carbon development promoted through new carbon market mechanisms, in participating DMCs.</p>	<p>By 2020: 50% of the participating DMCs develop policy framework to support new carbon market mechanisms including bilateral mechanisms. Against baseline of zero DMC by end of 2013.</p>	<p>Government and public information sources such as web sites of designated national authorities, department of industries, energy, transport in participating countries, Data on national statistics from reliable sources (e.g., ADB, the World Bank, http://mmechanisms.org/e/index.html or government sources)</p>	<p>Assumption Participating DMCs are committed to green growth agenda under new carbon market mechanisms such as bilateral mechanisms.</p> <p>Risk International negotiations may not yield expected results, thereby reducing incentives for the DMCs.</p>
<p>Outcome Enhanced capacities of the participating DMCs for increased utilization of new carbon market mechanisms such as bilateral mechanisms</p>	<p>At least three proposals are submitted for support under new carbon market mechanisms including bilateral mechanisms. Against baseline of zero proposals by end of 2013.</p>	<p>UNFCCC website Government and public information sources</p>	<p>Assumption DMCs will have policies that encourage and support creation of new carbon market mechanisms such as bilateral mechanisms.</p> <p>Risks International negotiations may not yield expected results, thereby reducing incentives for DMCs.</p> <p>Lack of available resources such as investment for market development and data collection skills</p>
<p>Outputs</p> <ol style="list-style-type: none"> 1. Capacity building activities for institutions and local experts on new carbon market mechanisms such as bilateral mechanisms 2. Direct project support under new carbon market mechanisms 	<p>At least eight capacity building events conducted with 100 institutional representatives, project developers, and local experts trained.</p> <p>At least five projects supported to be eligible for new carbon market</p>	<p>Workshop report and TA progress report</p> <p>TA progress report</p> <p>Bilateral status reports and</p>	<p>Assumptions There will be continued demand for carbon credits.</p> <p>DMCs are willing to participate in new carbon market mechanisms such as bilateral mechanisms.</p> <p>Risks Non availability of compatible regulatory environment and corresponding systems in</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
3. Knowledge sharing and products on new carbon market mechanisms including bilateral and sectoral mechanisms produced	mechanisms including bilateral mechanisms At least two knowledge products related to new carbon market mechanisms will be prepared.	documents Workshop documentation, knowledge products, and TA progress report Special technical report and TA report	some of the target DMCs. System and regulatory environment compatibility is not readily available in some target DMCs.
Activities with Milestones 1.1 Consolidate information on all carbon-market-related activities in the priority countries in 3 months from TA start date 1.2 Track developments on bilateral mechanisms regularly 1.3 Organize initial workshop for participating countries and other partners 1.4 Prepare guidelines, procedures, and project ideas for the participating countries for making use of new carbon market mechanisms such as bilateral mechanisms within 12 months 2.1 Review ADB's pipeline of projects and identify potential projects in the participating countries regularly 2.2 Provide regular updates to ADB's operations departments on the broader carbon market and specifically on the bilateral and sectoral mechanisms 2.3 Prepare assessment reports and other requirements to access benefits under bilateral carbon market mechanisms, on a regular basis 3.1 Conduct workshop to train institutional representatives, project developers, and experts from participating DMCs on the policy framework and requirements of the bilateral carbon market mechanisms within 12 months from TA start date 3.2 Develop knowledge products, guidelines, and a manual on the bilateral carbon market mechanisms for the advantage of participating DMC stakeholders within 18 months from TA start date 3.3 Document experience of implementing bilateral mechanisms for projects and share in the final workshop by 24 months of TA start date			Inputs Japan Fund for Poverty Reduction: \$1,500,000

ADB= Asian Development Bank, DMC = developing member country, TA = technical assistance, UNFCCC = United Nations Framework Convention on Climate Change.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Japan Fund for Poverty Reduction^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (30 person-months)	613.8
ii. National consultants (54 person-months)	245.0
b. International and local travel	150.0
c. Reports and communications	60.0
2. Equipment ^b	26.2
3. Publications and information services ^c	30.0
4. Workshops, local training, seminars, and conferences ^d	320.0
5. Miscellaneous administration and support costs	55.0
Total	1,500.0

^a Administered by the Asian Development Bank.

^b Includes computers, software, accessories, and other small equipment. All procurement under the TA will be carried out in accordance with the ADB Procurement Guidelines (2013, 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 2009. *Administering Grant-Financed Technical Assistance Projects*. Project Administration Instructions. PAI 5.09. Manila).

^c Subscription to database and information services.

^d Includes honorarium and travel costs for resource persons and facilitators, participants' travel costs, staff travel costs as resource persons and/or speakers, and logistics costs.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. A team of international and national consultants with expertise and experience in the areas of international carbon markets will be engaged to assist in the implementation of the technical assistance (TA). Individual consultants (30 person-months of international and 54 person-months of national) will be engaged to meet the requirement for specialized and/or country-specific expertise. 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). The duration of this TA is 2 years.

A. International Consultants

2. **Climate finance specialists** (2 individual specialists, 18 person-months). The specialists will undertake the following activities:

- (i) Track ADB's pipeline of projects and identify opportunities for new carbon market mechanisms such as bilateral carbon mechanisms. Keep a track of developments and experiences of new and more efficient low-carbon technologies and provide that information to developing member countries (DMCs) and ADB's operations departments.
- (ii) Gather and review existing information and data on bilateral and other new carbon market mechanisms in the DMCs and ADB pipeline projects with potential carbon market components, considering the additionality of each project.
- (iii) Provide carbon-market-related technical support to ADB's operations departments, and participate in missions as required in consultation with national experts and international technical advisors as necessary, including the following tasks:
 - (a) prepare emission reduction assessment reports for potential projects;
 - (b) develop baseline and monitoring methodologies and prepare project design documents;
 - (c) assist project entities in gaining approval from host country authorities and third-party validators, and register the project with the relevant authorities;
 - (d) assist the project developers and ADB project officers in the preparation of documents based on the requirement of the relevant carbon market mechanisms; and
 - (e) assist project developers in meeting any other requirements of the new carbon market mechanisms.
- (iv) Verify evaluations completed by national consultants on the ADB project pipeline to determine the greenhouse gas emissions reduction potential.
- (v) Carry out necessary capacity building activities as identified by the team leader and project officer from the Regional and Sustainable Development Department Climate Change Coordination and Disaster Risk Management Unit (RSDD-CD).
- (vi) Draft progress reports of the projects, and submit them to the team leader.
- (vii) Follow international developments on mitigation of greenhouse gas emissions, the Clean Development Mechanism, new carbon market mechanisms including the bilateral mechanisms, and apprise ADB project officers accordingly.
- (viii) Perform other bilateral carbon-market-related work under the TA as required.

3. The specialists(s) will have a master's degree or higher in finance, management, or environment areas; a minimum of 7 years' experience; a good understanding of the regulations, processes, procedures, and institutions regulating various carbon market mechanisms; and

practical experience in working in the areas of climate and/or carbon finance, development, and donor activities in Asia and the Pacific.

4. **Sector specialists** (2 individual specialists, 12 person-months). The specialists will undertake the following activities:

- (i) track ADB's pipeline of projects and identify opportunities for bilateral carbon market mechanisms;
- (ii) track developments and experiences of new and more efficient low-carbon technologies and provide that information to DMCs and ADB's operations departments;
- (iii) help project developers in evaluating technologies and developing their projects;
- (iv) undertake capacity building activities for the DMCs and organize workshops and seminars as required;
- (v) provide inputs to the national consultants and review the work;
- (vi) prepare reports, briefing notes, and technical assessment reports as necessary; and
- (vii) carry out any other activities required.

5. The specialist(s) will have master's or equivalent degree in engineering, environment, economics, or a related field with a minimum of 7 years' relevant experience of managing renewable energy, energy efficiency, waste management, and other greenhouse gas mitigation projects in Asia and the Pacific.

B. National Consultants

6. **Carbon market experts** (6 individual experts, 30 person-months). The experts will undertake the following activities:

- (i) Gather and review existing information and data on the new carbon market mechanisms, including bilateral carbon market mechanisms in the assigned DMC as well as on ADB pipeline projects with potential carbon market components.
- (ii) Carry out necessary capacity building activities as identified by the team leader, international experts, and RSDD-CD project officer to suit requirements of the identified market mechanisms.
- (iii) Prepare evaluations on the ADB project pipeline to determine the greenhouse gas emissions reduction potential.
- (iv) Provide carbon-market-related technical support to the project proponents who have received loans, grants, or other financial assistance from ADB operations departments. Participate in missions as required in consultation with international experts and technical advisors, as necessary, including the following tasks:
 - (a) prepare emission reduction market assessment reports of projects;
 - (b) prepare documents as required by various market mechanisms;
 - (c) assist in developing new baseline and monitoring methodologies, including methodologies related to standardized baselines; and
 - (d) assist the project developers and ADB officers in preparing documents as per requirement of the mechanism.
- (v) Draft and submit progress reports of the projects.
- (vi) Follow international developments on mitigation of greenhouse gas emissions, and apprise the team leader and the RSDD-CD project officer accordingly.
- (vii) Perform other carbon-market-related work under the TA as assigned.

7. The expert(s) will have master's or equivalent degree in engineering, environment, economics, or a related field with a minimum of 5 years' relevant experience in managing renewable energy, energy efficiency, waste management, and other greenhouse gas mitigation projects and the relevant regulatory framework in respective host countries.

8. **Technical assistance coordinator** (1 individual coordinator, 24 person-months). The coordinator will provide overall assistance during the TA implementation period. The coordinator will also undertake the following activities:

- (i) support coordination and integration between the TA and the other activities of the Carbon Market Program and the various teams working under it;
- (ii) coordinate activities of TA subprojects, ensuring their linkages at national level;
- (iii) assist other subproject teams in coordination and liaison activities;
- (iv) prepare and update the TA overall work plan and budget;
- (v) organize and participate in meetings, workshops, and training, and provide assistance in report and proceeding preparation;
- (vi) create and manage project database and records;
- (vii) prepare progress reports, briefing notes, correspondence, and other documents that may be required by ADB and partners; and
- (viii) disseminate information and organize outreach activities.

9. The coordinator will have at least 8 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.