

Regional: Financing Low-Carbon, Climate-Resilient Urban Infrastructure in Asia and the Pacific

| Project Name | Financing Low-Carbon, Climate-Resilient Urban Infrastructure in Asia and the Pacific |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Number | 48265-001 |
| Country | Regional |
| Project Status | Active |
| Project Type / Modality of Assistance | Technical Assistance |
| Source of Funding / Amount | TA 8865-REG: Financing Low-Carbon, Climate-Resilient Urban Infrastructure in Asia and the Pacific |
| | Technical Assistance Special Fund US\$ 750,000.00 |
| Strategic Agendas | Environmentally sustainable growth Inclusive economic growth Regional integration |
| Drivers of Change | Governance and capacity development Knowledge solutions Partnerships Private sector development |
| Sector / Subsector | Energy - Energy efficiency and conservation Water and other urban infrastructure and services - Urban policy, institutional and capacity development |
| Gender Equity and Mainstreaming | Some gender elements |
| Description | The technical assistance (TA) will produce a study on low-carbon, climate-resilient urban infrastructure development options, costs, and benefits in developing member country (DMC) cities or urban agglomerations with populations of 750,000 or more. Based on six selected _archetype_ cities, a master plan assessment of current and projected infrastructure needs by 2020_2030 will be undertaken and the climate exposure and risk of these needs will be analyzed. The TA will quantify the infrastructure financing needs of selected cities, including filling existing infrastructure gaps and projected infrastructure needs, using investment in low-carbon infrastructure where feasible and climate-resilient infrastructure in all cases. The TA will identify appropriate financing mechanisms and structures to support the implementation of the identified infrastructure. By focusing on archetype cities, or agglomerations which are representative of a larger group of cities in Asia and the Pacific and have demonstrated willingness to explore low-carbon and climate-resilient infrastructure alternatives, the TA will permit a quantification of financing needs for the implementation of low-carbon, climate-resilient urban infrastructure in cities across the region. The TA shall build on existing information (e.g., city climate change plans and studies, greenhouse gas inventories, infrastructure inventories, vulnerability assessments, estimates of urban financing needs, and other city indicator inventories). Ultimately, the TA will facilitate the identification of opportunities and approaches to fully integrate planning, design, and finance of low-carbon, climate-resilient development using a range of financial sources, mechanisms, and structures. |

Project Rationale and Linkage to Country/Regional Strategy Many countries in developing Asia are projected to become major global economic powerhouses this century. The region is also fast becoming a major driver of greenhouse gas emissions worldwide, and at the same time is increasingly exposed to the risks of climate change. However, significant opportunities exist to develop interventions for sustaining optimal levels of low-carbon and climate-resilient development that have not yet been locked or are still in the early stages of planning and implementation. Developing countries require massive additional investment to transition to a low-carbon and climate-resilient development path. Mitigation in developing countries could cost \$140 billion_\$175 billion per year during 2010_2030. Adaptation costs for developing countries in Asia and the Pacific during 2010_2050 are estimated at \$40 billion per year.

Currently, more than 40% of Asia's population resides in urban areas, and by 2050 two-thirds of Asia's population will be urban. More than 520 million vulnerable people across the region are estimated to live in squalor in urban slums, with poor services. Urban areas account for 60%_80% of DMC energy consumption and 75% of carbon emissions. They are also frequently exposed to climate-related hazards, such as floods and storm surges.

Given the urban growth expected in Asia, particularly of small and medium-sized cities, there is a great deal of development and infrastructure yet to be built, so there are significant opportunities for low-carbon growth from the outset. As the recent study of the Intergovernmental Panel on Climate Change Fifth Assessment Report Working Group III emphasizes, cost effective, large-scale solutions to mitigation are not going to be achieved through individual sector or technology solutions, but rather through systemic and cross-sector mitigation strategies . Not only have cities contributed the largest share of the world's greenhouse gas emissions, they also concentrate many of the people most at risk from the effects of climate change.

Impact

Investment in urban infrastructure using climate finance mechanisms in DMC cities increased

Project Outcome

Description of Outcome

Information basis for project designs for large-scale climate investment in low carbon and climate resilient infrastructure in DMC cities improved

Progress Toward Outcome

Implementation Progress

Description of Project Outputs

- 1._DMC cities classified and six archetype cities selected
- 2. Needs and opportunities for large-scale implementation of low-carbon, climate-resilient urban development in archetype cities identified
- 3._Financing models and mechanisms to address investment needs and capitalize on opportunities identified
- 4. Costs and benefits associated with large-scale implementation of low-carbon, climate-resilient urban infrastructure in cities across Asia and the Pacific identified and conceptual proposal for scaling up investment and assistance developed

Status of Implementation Progress (Outputs,

Activities, and Issues)

Geographical Location

Summary of Environmental and Social Aspects

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

Stakeholder Communication, Participation, and Consultation

During Project Design

The TA supports ADB's Urban Operational Plan for 2012_2020 , which emphasizes integrated planning to catalyze climate-friendly, resilient, inclusive, and environmentally sustainable urban development. The TA also supports ADB's Sustainable Transport Initiative Operational Plan , which features urban transport and climate change and energy efficiency as key areas of intervention, and promotes integrated urban planning, land use planning, and lower emission transport solutions.

The TA will draw lessons from the CDIA that ADB has jointly established with development partners. The CDIA continues to help Asian cities structure urban infrastructure projects, including low-carbon, climate-resilient infrastructure.

The TA will also establish links with ongoing ADB efforts to scale up climate-resilient investment in urban infrastructure, including the Urban Partnership Financing Facility and Urban Climate Change Resilience Trust Fund, as well as relevant programs in regional departments, such as the Southeast Asia Department's Secondary Cities Development Program II (Green Cities) and the Central and West Asia Department's Economics of Climate Change in Central and West Asia .

During Project Implementation 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 January 2015 to February 2016. The TA will finance consulting services, workshops, and report preparation. Target archetype cities will be proposed after discussions with regional departments, the Private Sector Operations Department, DMC authorities, and other stakeholders. The workshops serve as a platform to present, validate, and consolidate stakeholder insights regarding the interim and final results of the TA. Resource persons will be required to provide qualitative and quantitative inputs supporting and supplementing the research required by the TA and the results presented during workshops and meetings with local stakeholders.

Business Opportunities

Consulting Services

- A. International Consultants
- 1. Senior Climate Change Specialist and Team Leader
- 2. Urban Planner and Engineer
- 3. Senior Finance Specialist
- 4. Climate Change Adaptation Specialist
- 5. Energy Efficiency Specialist
- 6. Urban Sustainable Transport Specialist
- 7. Climate-Resilient Building Design Specialist
- **B.** National Consultants
- 1. Project Coordinators
- 2. Country Research Associates
- 3. Sustainable Infrastructure Specialists

Procurement

A team of international and national consultants will be engaged through a firm with extensive experience in conducting climate change mitigation and adaptation projects in Asia and the Pacific to assist in technical assistance (TA) implementation. will preferably have an ongoing or past affiliation with regional or national research institutions or centers of excellence on urban development. The data collection and analytical methods used for the TA should build upon the foundation of existing studies done by the Asian Development Bank (ADB) and other organizations. The TA will require about 29 person-months of international and 24 person-months of national consultant inputs.

Responsible Staff

| Responsible ADB Officer | Rattinger, Michael |
|----------------------------|-------------------------------------------------------------------------------|
| Responsible ADB Department | SDTC |
| Responsible ADB Division | SDCD |
| Executing Agencies | Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550, Philippines |

Timetable

| Concept Clearance | 09 Dec 2014 |
|---------------------|-------------|
| Fact Finding | - |
| MRM | - |
| Approval | 23 Dec 2014 |
| Last Review Mission | - |
| Last PDS Update | 16 Dec 2014 |

TA 8865-REG

| Milestones | | | | | | | | |
|-------------|--------------|------------------|-------------|-------------|--------|--|--|--|
| Approval | Signing Date | Effectivity Date | Closing | | | | | |
| | | Effectivity Date | Original | Revised | Actual | | | |
| 23 Dec 2014 | - | 23 Dec 2014 | 29 Feb 2016 | 31 Mar 2017 | - | | | |

| Financing Plan/TA Utilization | | | | | | Cumulative Disbu | rsements | |
|-------------------------------|-------------|-------------|---------------|-----------------|--------|------------------|----------|--------|
| ADB | Cofinancing | Counterpart | | | | Total | Date | Amount |
| | | Gov | Beneficiaries | Project Sponsor | Others | | | |

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| Project Page | iect Page https://www.adb.org/projects/48265-001/main | | | | | | |
| Request for Information http://www.adb.org/forms/request-information-form?subject=48265-001 | | | | | | | |
| Date Generated | | 06 July 2017 | | | | | |

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23 Dec 2014

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