



Technical Assistance Report

Project Number: 39343
October 2007

Promoting Climate Change Adaptation in Asia and the Pacific

(Financed by the Japan Special Fund and the Government of the United Kingdom)

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
ASEAN	–	Association of Southeast Asian Nations
CDM	–	clean development mechanism
CPS	–	country partnership strategy
DMC	–	developing member country
GEF	–	Global Environment Facility
ICIMOD	–	International Centre for Integrated Mountain Development
IFC	–	International Finance Corporation
IGES	–	Institute for Global Environmental Strategies
IPCC	–	Intergovernmental Panel for Climate Change
LDC	–	least-developed country
MRC	–	Mekong River Commission
NAPA	–	National Adaptation Plan for Action
NEASPEC	–	North-East Asian Sub-regional Programme on Environmental Cooperation
NGO	–	nongovernment organization
OECD	–	Organization for Economic Cooperation and Development
SACEP	–	South Asia Cooperative Environment Programme
SGA	–	Small Grants For Activities
SPREP	–	South Pacific Regional Environmental Programme
TA	–	technical assistance
UNEP	–	United Nations Environment Programme
UNFCCC	–	United Nations Framework on the Conventions for Climate Change

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sectors	–	Multisector: (agriculture and natural resources; transport and communications; water supply, sanitation, and waste management)
Subsectors	–	Agriculture production, agroprocessing, and agribusiness; irrigation and drainage, water resource management
Themes	–	Sustainable economic growth, environmental sustainability, regional cooperation
Subtheme	–	Climate change

NOTE

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

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I. INTRODUCTION

1. The global scientific consensus is that climate change is increasing the intensity and frequency of extreme weather events such as tropical cyclones and droughts, and is accelerating the melting of glaciers, causing sea level to rise. Drought will lead to a higher frequency of forest fires, stresses on crop production and aquaculture, and higher incidence of heat-related and infectious diseases.¹ The Stern Review Report on the Economics of Climate Change estimates that even if atmospheric carbon dioxide concentrations are kept below dangerous levels through concerted international action, adaptation will still cost poor countries \$10 billion annually just for the necessary infrastructure.² If not addressed, the situation will severely hinder long-term global and regional efforts to create a more healthy, prosperous, and sustainable world. While the emerging responses to climate change focus primarily on mitigating the emissions of greenhouse gases, these threats to development progress show that there also is a need to adapt to the anticipated impacts.³ The international community, such as the Intergovernmental Panel for Climate Change (IPCC), Organization for Economic Cooperation and Development (OECD), and the Group of Eight (G8), has called for immediate measures to significantly reduce and stabilize the concentrations of greenhouse gases in the atmosphere. While there have been parallel calls for attention to climate change adaptation (e.g., United Nations Framework on the Conventions for Climate Change [UNFCCC], IPCC, G8), work in this area is less advanced than mitigation efforts.

2. ADB's main contribution to a climate change response is through support for the transition toward a low-carbon economy in Asia and the Pacific. Current activities support both public and private investments in the fields of renewable and clean energy, energy efficiency, use of carbon markets, and establishment of knowledge hubs. The Energy Efficiency Initiative⁴ aims to bring investment in clean energy to at least \$1 billion per year. Other support mechanisms include the Carbon Market Initiative and Clean Energy Financing Partnership Facility⁵ to catalyze greater investments in clean energy. In addition, ADB supports a few centers of excellence that aim to collect, enrich, and disseminate knowledge on climate change, renewable energy, and efficient resource use through its Regional Assistance for Establishment of Regional Knowledge Hubs.

3. While mitigation efforts are essential, work must begin on building understanding of the likely impacts of climate change and moving forward with the most cost-effective adaptation measures. Unfortunately, the majority of ADB's developing member countries (DMCs) are not yet adequately prepared to deal with the changes already predicted based on current trends.

4. This technical assistance⁶ (TA) is formulated to strengthen adaptation responses in the Asia and Pacific region so that DMCs will be more resilient to climate change. The design and monitoring framework is in Appendix 1.

¹ See <http://www.ipcc.ch/pub/sr97.htm> for information on Asian climate change vulnerabilities.

² Stern, N. 2006. *Stern Review: The Economics of Climate Change*. (pages 471–507).

³ Mitigation refers to interventions meant to reduce the emissions of greenhouse gases or enhance their sequestration/sinks. Adaptation refers to adjustments made based on the expected impacts of climate change to reduce costs and vulnerabilities.

⁴ ADB. 2007. *Technical Assistance for Supporting the Inception of the Energy Efficiency Initiative in Developing Member Countries*. Manila (TA 6346-REG), and ADB. 2007. *Technical Assistance for Supporting the Implementation of the Energy Efficiency Initiative in Developing Member Countries*. Manila. (TA 6392-REG).

⁵ ADB. 2007. *Clean Energy Financing Partnership Facility: Establishment of the Clean Energy Fund and Clean Energy Trust Funds*. Manila.

⁶ The TA first appeared in *ADB Business Opportunities* on 7 April 2007 (Internet edition).

II. ISSUES

5. Rapid climate changes are expected to create a range of adverse impacts in Asia and the Pacific. From the Himalayan highlands to the rich tropical forests of Southeast Asia and across the Pacific Islands, many natural ecosystems are vulnerable to climate change and some will be irreversibly damaged. As noted, these vulnerabilities derive from increased risks brought about by climate change.⁷

6. It is reasonable to conclude that climate change poses a new and significant threat to achieving both poverty reduction and economic growth in many DMCs. There is a high probability that the least-developed countries (LDCs) and people who already are the most vulnerable will be disproportionately affected (footnote 2). The ability to which DMCs can adapt to climate change will be instrumental in their fight to reduce poverty and promote sustained economic development.

7. Three issues need to be addressed to strengthen adaptation responses in Asia and the Pacific. First, the future environmental conditions in vulnerable Asia-Pacific ecosystems need to be better known. For climate change adaptation to be mainstreamed in the development process, the impacts of climate change must be identified and analyzed in terms of broader, national-level economic impacts. For mainstreaming to be effective, a broad range of government departments and ministries will need to be targeted, e.g., economic and finance ministries as well as ministries dealing with the environment, water resources, agriculture, etc. Upgrading the capacity of key technocrats is a critical step in ensuring that policy reformers have internal trustworthy research sources to rely on. And policy reformers will also require capacity building so as to know how to critically review the research of technocrats. Second, DMCs need assistance to strengthen their existing adaptation plans. While the work on early adaptation plans in LDCs drew significant lessons, it is clear that further technical assistance will greatly improve LDCs' ability to prepare investment plans and development policies that will be more compatible with future climatic conditions. Some more developed DMCs with large human populations are also liable to suffer significant impacts from climate change and might require assistance with adaptation planning. Third, the international community needs to be more responsive to DMCs' changing needs. Both the procedures and priorities for investment may need to be re-engineered to account for changing climatic conditions. At ADB, country partnership strategies (CPS), sector investments, and internal bank policies all need to be able to respond to DMCs needs for adapting to climate change.

8. ADB is well-poised to support climate adaptation in Asia and the Pacific because (i) it has a strong mandate to promote climate change initiatives through its Clean Energy and Environment Program; (ii) it is cultivating experience with climate change adaptation⁸ and it intends to broaden and deepen that experience in the coming years; (iii) it enjoys productive relations with leaders in climate change such as UNFCCC, and United Nations Environment Programme (UNEP) and its subregional partners,⁹ as well as Global Environment Facility (GEF)-financed initiatives; and (iv) perhaps, more importantly, it can help DMCs apply the science of adaptation to investment planning and policy development. This is seen as a

⁷ E.g., UNEP predicted that a 1.5-meter sea level rise in Bangladesh will flood about 16% of the country's area where 15% (22 million people) of the nation currently live. See <http://www.grida.no/climate/vital/33.htm>

⁸ Several subregions have initiated adaptation activities through ADB financing. For example, the Climate Change Adaptation Program for the Pacific has assisted Pacific DMCs to enhance their adaptive capacities and resilience to climate change variability, including changes in extreme events and sea level rise. This is achieved by risk assessment, planning and policy development, and "climate-proofing" infrastructure and communities.

⁹ UNEP subregional partners include SPREP=Secretariat of the Pacific Regional Environment Program, ASEAN=Association of Southeast Asian Nations, SACEP, MRC=Mekong River Commission, ICIMOD=International Centre for Integrated Mountain Development, and NEASPEC=North East Asia Sub-regional Program for Environment Cooperation. See <http://www.roap.unep.org/region/subregion.cfm> for more details.

comparative advantage because much of the current work by others is limited to strengthening the scientific basis for understanding adaptation, i.e., without planning applications.

9. ADB's support to adaptation cannot occur in isolation. It must be coordinated with other international organizations, scientific bodies, and aid agencies that are developing parallel responses to adaptation for ADB's DMCs. Though adaptation is generally considered to be underresourced, support for it is rapidly increasing. This creates a coordination challenge and risk of inefficient use of resources. Adaptation initiatives are numerous and build upon the analytical work of the IPCC, which was established to assess the scientific, technical, and socioeconomic information relevant for understanding climate change, its potential impacts, and options for adaptation and mitigation.¹⁰ Two adaptation funds have been set up by UNFCCC to strengthen developing countries' adaptation responses: the Special Adaptation Fund, and the Least-Developed Countries Fund, both of which are managed by GEF. Arrangements for a new Adaptation Fund capitalized through a 2% levy on clean development mechanism (CDM) transactions to finance concrete adaptation measures are currently being negotiated under UNFCCC. The United Kingdom, for example, recently approved a \$1.6 billion International Environmental Transformation Fund for the purpose of reducing poverty through environmental management and helping developing countries respond to climate change. The World Bank and Japan Bank for International Cooperation are in discussion with ADB to jointly support an assessment of the climate change adaptation costs for Asian coastal cities. Appendix 2 gives preliminary selection criteria and implementing arrangements for small grants activities (SGAs).

10. National-level adaptation is also occurring. Several least-developed country LDC members have prepared National Adaptation Program for Action (NAPAs), and these may serve as a basis for adaptation investments. Some non-LDC members, including India and the People's Republic of China (PRC), are undertaking activities in both adaptation research and policy. Nongovernment organizations (NGOs) and research institutes are also aligning activities toward climate adaptation.

III. THE PROPOSED TECHNICAL ASSISTANCE

11. The TA is designed to help address (i) the need to mainstream adaptation issues into investment planning, (ii) the need to develop a national capacity for adaptation, and (iii) the need to coordinate and strengthen international community responses for adaptation.

A. Impact and Outcome

12. The TA's impact is the participating governments' adoption of investment programs, plans, policies and/or other actions to adapt development to expected future climatic conditions. All those should be developed in close cooperation with DMCs and international organizations (e.g., UNFCCC, UNEP) so that the latter seamlessly support relevant existing adaptation plans and activities. It is assumed that climate change will continue to occur and that its effects can be measured and presented. The main risk to achieving this outcome is that Governments, and/or regional economic integration bodies do not endorse the TA's recommended policies/remedies. The TA's outcome is the improved understanding by participating governments of the necessary actions they must take to adapt to climate change.

¹⁰ See <http://www.ipcc.ch/SPM13apr07.pdf> for the most recent Working Group II report on adaptation.

B. Methodology and Key Activities

13. The proposed TA comprises the following activities and outputs under three categories.
- (i) **Strengthened regional and subregional cooperation.** Selected subregional organizations improve their capacity to support adaptation challenges in vulnerable ecosystems, sectors, and/or peoples of selected DMCs. Examples of activities and outputs that mainstream adaptation to investment planning will include subregional papers prepared to identify the current state and challenges in adaptation, a framework for regional cooperation on adaptation to climate change, subregional-level sector studies (e.g., in agriculture, coastal zone management, water resource management), and a review/revision of climate change and adaptation scenarios for major ecosystems (e.g., low-lying coastal systems, dryland ecosystems, mountain ecosystems, small island ecosystems). Activities and outputs will be conducted in cooperation with organizations providing relevant support for climate adaptation (e.g., UNEP, World Meteorological Organization).
 - (ii) **Strengthened DMC response to adaptation.** Selected DMCs revise plans, policies, and/or other actions to make them better adapted to future climatic conditions. Examples of capacity building and technical activities and outputs will include a review and analysis of country access to basic climate change information systems, assessment of the economic impacts of climate change, improving understanding and use of climate change information, developing in-country adaptation programs, developing policies for addressing climate change adaptation in major economic sectors, communications strategies for promoting policy options and adaptation strategies, and technical assistance to make the science of climate change accessible to decision makers so that they can adapt selected investment plans.
 - (iii) **Mainstreaming adaptation considerations at ADB.** ADB operations become better aligned to meet selected DMC investment needs, given the risks from climate change. Examples of activities to coordinate and strengthen international community responses include the integration of climate change adaptation considerations into ADB's CPS processes, sector investment approaches, safeguard policies and guidelines, and Disaster and Emergency Assistance Policy.
14. SGAs will be financed through TA funds to pilot-test, demonstrate, or further develop the clarity of the TA's outputs. Activities will be oriented toward demonstrating cost-effective adaptation measures that lead to expanded investment support from ADB. Examples of situations where SGAs may be provided include (i) field-based testing of promising adaptation measures that hold potential for widespread replication, (ii) policy or institutional reform initiatives relating to adaptation, (iii) regional or subregional efforts to identify or disseminate best practices, and (iv) efforts to build climate change adaptation considerations into ADB's regional or country programming. A key financing selection criterion is that activity results must be replicable through future DMC or ADB support. To help achieve this criterion, activities proposed for small grants will generally need to receive support from and be directly applicable to regional departments. Appendix 2 gives more information on SGAs.
15. A monitoring system to be established for the TA will cover activities, inputs, outputs, outcomes, and financial management. An evaluation system will also be designed to assess development impact. The climate change adaptation focal point in ADB's Regional and Sustainable Development Department (RSDD) will be supported and exchange visits to similar

initiatives of development partners will be undertaken to ensure coordination and to facilitate joint activities.

16. The findings of the TA will be disseminated to regional, subregional, DMC, multilateral development bank, and bilateral development partners through publications, workshops, and the internet. It is expected that the findings will allow partners to further their own adaptation efforts. In particular, the TA's support in preparing investment plans for DMCs is expected to help realize the overall project impact when development partners are able to support financing of projects proposed in the plans.

C. Cost and Financing

17. The total cost of the TA is estimated at \$3.6 million. The amount of \$0.8 million will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan, and \$2.8 million will be financed on a grant basis by the Government of the United Kingdom. The cost estimates and financing plan are in Appendix 3.

D. Implementation Arrangements

18. The TA will start by November 2007 and will be completed about 48 months later. The TA will be executed by the Environment and Social Safeguards Division (RSES) of RSDD, in coordination with its Energy, Transport, and Water Division (RSID). RSDD staff will interact frequently with regional department staff to identify and implement operational support activities for climate adaptation. Participating regional departments will use existing relations to influence and direct development country partnership strategies. Links will be established with ADB knowledge hubs when appropriate.

19. Government and nongovernment organizations will be eligible to apply for SGAs. Applications will be reviewed and awarded by a committee chaired by RSDD and populated by representative operational and regional departments. The regional and operational departments, through a designated activity officer, will be responsible for supervising and monitoring activities with administrative and technical support provided by RSES.

20. Individual consultants will be engaged by ADB in accordance with its *Guidelines on the Use of Consultants* (2007, as amended from time to time). The consultants' terms of reference are in Appendix 4. Equipment will be limited to computers and communications devices. They will be purchased and disposed of in accordance with ADB guidelines.

21. Specific DMCs have not yet been selected for participation in the regional TA (RETA). However, any activity funded by this RETA will only start in a particular DMC after ADB has received a no-objection letter from the DMC regarding its inclusion in the RETA.

IV. THE PRESIDENT'S RECOMMENDATION AND DECISION

22. The President recommends that the Board approve ADB administering a portion of technical assistance not exceeding the equivalent of \$2,800,000 for Promoting Climate Change Adaptation in Asia and the Pacific, to be financed on a grant basis by the Government of the United Kingdom. If the Board approves ADB administering the technical assistance, the President, acting under the authority delegated by the Board, will approve ADB providing the balance of the technical assistance not exceeding the equivalent of \$800,000, for Promoting Climate Change Adaptation in Asia and the Pacific.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions and Risks
<p>Impact Participating governments adopt investment programs, plans, policies, and/or other actions to adapt development to expected future climatic conditions.</p>	<p>At least 50% of participating governments will have investment programs, plans, policies, or other actions that are better adapted to climate change within 4 years of TA closure.</p>	<p>DMC and ADB investment portfolios.</p>	<p>Assumption Climate change will continue to occur and its effects can be measured and presented.</p> <p>Risks Governments do not officially endorse the plans, policies, and/or other actions proposed through the TA.</p> <p>Changes in governments or government policies derail adaptation movement in participating DMCs.</p>
<p>Outcome Participating governments have an improved understanding of the necessary actions they must make to adapt to climate change.</p>	<p>At least 50% of participating governments conduct one major measure that supports adaptation to climate.</p>	<p>Consultants' progress reports, government communications to ADB National communications to UNFCCC, NAPA updates, other UNFCCC documents.</p>	<p>Assumption General consensus is reached by selected DMCs and financial institutions on the best approaches to promoting climate adaptation.</p> <p>Risk The scientific body of knowledge prepared and/or adopted by the TA is not of suitable quality to accurately predict climate change at an appropriate scale for DMCs to prepare for adaptation within ecosystems or sectors, and TA outputs suffer from a credibility issue.</p>
<p>Outputs 1. The capacity of selected subregional organizations is improved to support adaptation challenges in vulnerable ecosystems, sectors, and/or peoples of selected DMCs. 2. Selected DMCs propose revisions to plans, policies, and/or</p>	<p>At least four subregional papers and one overarching framework for regional cooperation are prepared by end of year 1.</p> <p>At least three regional departments are engaged in TA adaptation activities by end of year 2.</p>	<p>Workshop, progress, and final reports of the TA.</p> <p>Reports and information from participating subregional partners and DMCs.</p> <p>Selected CPS outputs ADB policies and/or plans.</p>	<p>Risks Discrepancies, competition, or information sharing constraints between subregional partners and/or DMCs destabilize the effectiveness of TA activities.</p> <p>Lack of available climate data reduces the effectiveness of TA outputs.</p>

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions and Risks
<p>other actions for climate adaptation.</p> <p>3. ADB operations are better aligned to meet selected DMCs' investment needs, given future climatic conditions.</p>	<p>At least three adaptation sector studies are conducted in cooperation with subregional organizations by end of year 3.</p> <p>At least three DMC's have considered climate risks in their medium- and long-term national development plans and/or PRSP's (as appropriate).</p> <p>All but one participating DMC will prepare at least one technical report that addresses a specific climate change issue by year 3.</p> <p>At least 50% of CPS processes conducted by participating DMCs during the project period included transparent dialogue and resolution on an approach to adaptation by end of the TA.</p> <p>A screening mechanism is in place for assessing the implications of adaptation to climate change for ADB's project investments, with significant progress in its application.</p> <p>Adaptation considerations are integrated into the implementation framework for ADB's Disaster and Emergency Assistance Policy by year 3.</p> <p>At least 6 SGAs are approved by year 3.</p>	<p>SGA applications</p> <p>Communications files with regional departments.</p>	<p>ADB officers do not have time or motivation to champion SGAs.</p>

Activities with Milestones	Inputs
<p>Approach Project Planning: TA activities can be grouped into three phases: Phase 1 comprises establishment of a regional information system for climate change adaptation, assessment of DMCs adaptation programs, institutional assessments, and identification of geographic or sector blocks. Phase 2 comprises definition of knowledge gaps in major sectors, and drafting of a detailed work program in relation to the knowledge gaps. Phase 3 comprises specific studies and pilot projects in selected DMCs. The phases for climate change adaptation are expected to overlap temporally; therefore it is most appropriate to use annual work plans rather than TA phases as milestone markers. Each annual work plan will be reviewed and commented on by the Project's steering committee (chaired by RSDD and populated by selected members of operational and regional departments). The key activities to be covered within the annual work plans are as follows.</p> <p>1.1 Conduct a scoping study (including consultation and workshops) to determine the state of cooperation in subregions (South Asia, Southeast Asia, Central and West Asia, East Asia, and Pacific). On the basis of the study, prepare one paper for each subregion and an overarching framework for subregional cooperation on adaptation to climate change. This study will serve as the basis for focusing the geographic, policy, and technical orientation of the TA.</p> <p>1.2 Based on results of the scoping study and the framework, SGAs can be used to</p> <ul style="list-style-type: none"> (i) conduct subregional-level sector studies in cooperation with selected ADB subregional partners,^a UNFCCC, UNEP, World Bank, JBIC, WMO, and other relevant agencies. The studies will involve developing, revising, or reviewing climate change and adaptation scenarios and will consider (a) specific ecosystems known to be vulnerable to climate change (e.g., small island ecosystems, dryland ecosystems, lowland coastal ecosystems, upland mountainous ecosystems), and (b) specific peoples known to be vulnerable within the selected ecosystems (e.g., indigenous peoples, people living in poverty); (ii) prepare broad sector guidelines for adapting to climate change (e.g., in agriculture, coastal zone management, water resource management); and (iii) provide technical support to subregional-level partners to adjust their own approaches to climate adaptation within their organizations. <p>1.3 Conduct meetings and workshops with subregional-level partners to disseminate results and discuss their relevance to subregional situations.</p> <p>2.1 With each participating DMC, assimilate the following information:</p> <ul style="list-style-type: none"> (i) country access to basic climate change information systems, (ii) country understanding and use of climate change information, (iii) status of in-country adaptation programs, (iv) support for adaptation at a country level through other agencies, and (v) status of policy developments for addressing climate change adaptation in the major sectors of the economy (e.g., agriculture, industry, energy, transportation, and tourism). 	<p>ADB: \$0.8 million Cofinancing: \$ 2.8 million</p> <ul style="list-style-type: none"> • 55 person-months international consulting services • 100 person-months national consulting services • Pilot projects and/or case studies

Activities with Milestones	
<p>If major gaps exist in any of the above areas, then the TA may use SGAs to fill those gaps.</p> <p>2.2 Considering the results of the DMC information collection activity (above), prepare a communications strategy aimed at promoting better understanding and appreciation of the issues and for examining various policy options and adaptation strategies.</p> <p>2.3 On the basis of results from activities 2.1 and 2.2, provide technical support to participating DMCs to identify and revise selected investment plans and development that could be better oriented toward adaptation.</p> <p>3.1 Review selected CPS development processes. Recommend opportunities where adaptation considerations can be integrated into the development cycle.</p> <p>3.2 Review selected ADB sector investment approaches to one or more regional departments. Recommend opportunities where adaptation considerations can be integrated into those approaches (this task is essentially operationalizing the outputs of task 2.3 into ADB investment portfolios).</p> <p>3.3 Review ADB's emergency and disaster preparedness and response efforts in the region, and propose recommendations to integrate climate change adaptation considerations into the emerging Action Plan for implementing ADB's Disaster and Emergency Assistance Policy.</p> <p>3.4 Review ADB's safeguard policies and guidelines (e.g., Environmental Assessment Guidelines, Rapid Environmental Assessment Checklists, Safeguard Policy Update) to determine opportunities to integrate climate change adaptation considerations. Discuss opportunities with RSES staff leading in revising policies/guidelines and provide practical guidance on how to consider climate change and adaptation into the revisions.</p> <p>3.5 Provide financial support to regional departments through SGAs to pilot-test or demonstrate adaptation opportunities developed by the TA.</p>	

BIMP-EAGA = Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area, CARECU = Central Asian Regional Economic Cooperation Unit, DMC = developing member country, GMS = Greater Mekong Subregion, IMT-GT = Indonesia, Malaysia, Thailand Growth Triangle, JBIC = Japan Bank for International Cooperation, OREI = Office of Regional Economic Integration, SASEC = South Asia Subregional Economic Cooperation, SGA = small grants for activities, UNEP = United Nations Environment Programme, UNFCCC = United Nations Framework on the Conventions for Climate Change, WMO = World Meteorological Organization.

SMALL GRANTS FOR ACTIVITIES

1. Small grants will be provided for activities that help equip developing member countries (DMCs) with the tools and experience necessary to adapt to climate change. Collectively, the activities will be a highly strategic suite of interventions that will help clarify the framework for adaptation needs and opportunities in the Asia and Pacific region. They are expected to have major impacts through either their direct outputs or replication plans.
2. The provision of small grants will be driven by the needs of regional departments and project officers of the Asian Development Bank (ADB) and well as ADB's DMCs. Activities financed by small grants can be implemented in any of ADB's DMCs. Activities will generally be oriented toward creating opportunities for expanded investment.
3. ADB regional departments, national organizations, nongovernment organizations (NGOs), private organizations, and academic institutions will be eligible to receive small grants to conduct activities in DMCs.
4. Applications for small grants will be reviewed and awarded by a committee of representative operational and regional departments. The committee will be chaired by ADB's Regional and Sustainable Development Department (RSDD).
5. Eligibility criteria for small grants may include (i) overall contribution to improving climate adaptation responses in Asia and Pacific; (ii) demonstrated support from DMC and ADB regional departments, (iii) consistency with ADB's *Environment Policy* (2002) or its successor(s), and ADB's Clean Energy and Environment Program or its successor(s); (iv) technically strong design; and (v) replication potential. Criteria for prioritizing may include a vulnerable ecosystem or people focus, a collaborative approach using partnerships, and investment potential.
6. Examples of activities that small grants may support include, but will not be limited to, (i) field-based testing of TA knowledge products by local stakeholders, including NGOs, national and subregional partnerships, academic institutions, or consultancy firms; and (ii) project team activities in regional departments that strengthen core operations by integrating climate adaptation (e.g., through policy dialogue, country programming, portfolio risk assessments, and project preparation and implementation).
7. An activity financed through a small grant is generally expected to be implemented over a period of 6 to 12 months. Activities should not duplicate, or substitute for, ongoing or pipelined activities in the DMCs, but should be directly relevant to the "sector outcomes" cited in the country partnership strategy and/or updates for the DMC. The type and duration of inputs for the activity will be provided in the activity proposals to be submitted by the ADB departments concerned during TA implementation.
8. About one third of the TA funds will go toward financing small grants for activities (SGAs). Individual SGAs will in most cases be limited to a maximum TA financing of \$100,000.
9. Table A2 gives an incomplete list of candidate activities that have sought ADB support.

Table A2: Sample Candidate SGAs

SGA Candidate	Support DMCs' Preparation for Conference of Parties 13 (COP 13), December 2007, Indonesia
TA Category	Strengthened Regional and Subregional Cooperation
Proponent	All DMCs (Government of Indonesia has already requested support)
Description	Provide technical assistance to prepare project concepts for adaptation, and assistance in packaging and presenting those to the global environment community at COP 13. Provide coordination support for meetings and workshops at COP 13 (specific request of Indonesia).
SGA Candidate	Political and Technical Support for Cooperation
TA Category	Strengthened Regional and Subregional Cooperation
Proponent	UNEP
Description	Provide financial and technical support to establish an Asia Pacific Climate Action Network that includes a secretariat (UNEP), political supporters (chair UNFCCC COP 13, People's Republic of China, India, Japan), chairs of subregions (Nepal, Philippines, Republic of Korea, Samoa, Turkmenistan,), all countries in subregions, and partnerships with research institutes and NGOs (to be identified, but may include IGES, IISD, IUCN, TEI, TERI, USP, WWF). Key task of the network is to help complete task 1.1 of the work plan (see DMF in Appendix 1).
SGA Candidate	Country Partnership Strategy Support
TA Category	DMC Interventions
Proponent	Any regional department and/or DMC conducting a CPS (e.g., for 2007: AFG, FIJ, IND, KGZ, MLD, PAK, PRC, SRI, THA, TON, TUV, REG PARD, REG SERD)
Description	This SGA focuses on raising the profile and strengthening adaptation plans so that they can be better considered in CPS processes. All DMCs have explicit (e.g., NAPA) or implicit (e.g., uncoordinated or unofficial) plans for adaptation. Although these form part of the DMCs' "diagnostic and analytical work," the degree to which the results of this work feed into the governments' national development plan can be modest. The result is that CPS's analysis and assessment phases may overlook plans for adaptation.
SGA Candidate	Multiagency Financing for Impact Assessment and Adaptation Planning
TA Category	DMC Interventions
Proponent	Municipal Governments
Description	Provide financial and technical support to a multiagency (WB, JBIC) initiative to model and evaluate impacts of climate change in selected coastal cities, assess the costs of those impacts, and identify and cost out the measure needed to adapt to the likely and most significant impacts of climate change. Current candidate cities for ADB support include Jakarta, HCMC, and Karachi.

SGA Candidate	Risk Screening of ADB's Investment Portfolio
TA Category	Mainstreaming Adaptation at ADB
Proponent	RSDD
Description	Apply/modify the World Bank screening guidelines to screen ADB investments for climate change risk. Prepare a briefing report based on the screening results.

SGA Candidate	Cumulative Impact Assessment and Adaptation
TA Category	Mainstreaming Adaptation at ADB
Proponent	CWID
Description	Combine with a demonstration CIA study to broaden the base for understanding the environmental conditions vulnerable to climate change. The study will strengthen planning application with an operational focus by providing more scientifically based mitigation solutions.

SGA Candidate	IND: Sustainable Coastal Protection and Management Project
TA Category	Mainstreaming Adaptation at ADB
Proponent	SANS
Description	Assess appropriate climate change adaptation measures for communities living adjacent to coastal stretches affected by sea erosion in selected maritime states of India. Formulate strategies that can be replicated on a wider scale and complement an investment program for sustainable coastal protection and management.

SGA Candidate	Livelihood Risk and Vulnerability Assessment of Biodiversity Corridor Initiative Communities
TA Category	Mainstreaming Adaptation at ADB
Proponent	GMS Core Environment Program (CEP)
Description	The CEP's investment framework should be oriented to future climate conditions. GMS asked RSDD to work in collaboration with appropriate meteorological institute to develop a range of scenarios and probabilities for climate change within the geographic scope of the Biodiversity Corridor Initiative (Lao People's Democratic Republic, Cambodia, Viet Nam, Thailand). These would then be discussed with GMS with the aim of adapting the investment framework.

SGA Candidate	Cumulative Assessment and Climate Change Adaptation.
TA Category	Mainstreaming Adaptation at ADB.
Proponent	CWRD
Description	Cumulative impact assessment of a specific sector, such as energy in the CWRD region, that has a high potential for benefiting from adaptation to climate change.

ADB = Asian Development Bank; AFG = Afghanistan; CEP = Core Environment Program; CIA = cumulative impact assessment; CWID = Central and West Infrastructure Division; DMC = developing member country; COP 13 =

Conference of Parties #13 under the Framework for the United Nations Convention on Climate Change; FIJ = Fiji; GMS = Greater Mekong Subregion; IGES = Institute for Global Environmental Strategies; IISD = International Institute for Sustainable Development; IND = India, IUCN = World Conservation Union; KGZ = Kyrgyz Republic; MLD = Maldives; NGO = nongovernment organization; PAK=Pakistan; PARD = Pacific Department; PRC = People's Republic of China; REG = regional; RSDD = Regional and Sustainable Development Department; SANS = South Asia Agriculture, Natural Resources, and Social Services Division; SERD = South Asia Department; SRI = Sri Lanka; TEI = Technology and Environment Institute; TERI = Technology and Environment Research Institute; THA = Thailand; TON = Tonga; TUV = Tuvalu; UNEP = United Nations Environment Programme; UNFCCC = United Nations Convention on Climate Change; USP = University of the South Pacific; WWF = World Wide Fund for Nature.

Source: Asian Development Bank estimates.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	380. 00
ii. National Consultants	200. 00
b. International and Local Travel ^b	100. 00
c. Communications	50. 00
2. Contingency (10%)	70. 00
Subtotal (A)	800. 00
B. Government of the United Kingdom Financing^c	
1. Long-Term International Consultant	720. 00
2. Regional and Subregional Cooperation ^d	510. 00
3. DMC Interventions ^d	810. 00
4. Mainstreaming Adaptation at the Asian Development Bank ^d	510. 00
5. Contingency (10%)	250. 00
Subtotal (B)	2,800. 00
Total	3,600. 00

^a Financed by the Japan Special Fund, funded by the Government of Japan.

^b May also cover staff travel, when acting as a resource person.

^c Government of the United Kingdom financing will be provided in pounds sterling. United States dollar financing amounts shown here are estimates based on current exchange rates

^d Each component includes the following subheadings, roughly in order of financial value: (i) small grants for activities (about 1/3 of the technical assistance [TA] value); (ii) TA support for short-term international and national consultant remuneration and per diem; international and local travel (may also cover staff travel, when acting as a resource person); reports and communications; equipment; training seminars, conferences, and surveys; and (iii) miscellaneous administration expenses and contingencies. These will be detailed during TA inception.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. International Consultants (minimum 55 person-months)

1. Long-Term Consultant: Climate Change Policy Analyst (36 person-months)

1. The climate change policy analyst will be engaged for a period of 36 months on a full-time basis for the greater part of the duration of the technical assistance (TA). The successful candidate will have expertise in the impact of a climate change policy and risk analysis and will undertake the following tasks.

- (i) Strengthen regional dialogue in Asia on scenarios for future response to climate adaptation. Conduct regional-level sector studies in cooperation with United Nations Framework on the Conventions for Climate Change, United Nations Environment Programme, United Nations Economic and Social Commission for Asia and the Pacific, and other relevant partners. The studies will include the development, revision, or review of climate change and adaptation scenarios in specific ecosystems known to be vulnerable to climate change (e.g., small island ecosystems, dryland ecosystems, lowland coastal ecosystems, upland mountainous ecosystems).
- (ii) Prepare broad sector guidelines for adapting to climate change, covering implications for infrastructure, land use and ecosystem management and economic development, poverty reduction, and social dimensions.
- (iii) Conduct meetings and workshops with subregional-level partners to disseminate the results of regional activities and discuss their relevance to subregional situations.
- (iv) Consult with developing member countries (DMCs) and subregional partners to identify key threats and opportunities for adaptation. Prepare DMC-specific reports that provide findings relating to those opportunities and recommend measures to strengthen DMC policies and investment plans toward adaptation. Prepare draft policies and investment plans as part of DMC-specific reports.
- (v) Work with the Regional and Sustainable Development Department and operational departments of the Asian Development Bank (ADB) to develop policy measures related to TA or project interventions that can demonstrate innovative approaches to capitalizing on adaptation opportunities. Present the findings of the analysis to partners and work with them to see that recommendations are adopted, where feasible. Assist ADB to introduce consideration of future action options into its regional and country strategies.
- (vi) Coordinate implementation of small grants for activities (SGAs) including design, application, selection, supervision, and monitoring, in close coordination with the operational departments.
- (vii) Prepare and manage a TA monitoring system, covering activities, inputs, outputs, outcomes, and financial management. Prepare and manage an evaluation system to assess the TA's development impact.
- (viii) Prepare and manage TA inception, midterm, and integrated summary reports as well as other reports and communications, as assigned.

2. **Short-Term International Consultants** (minimum 19 person-months)

2. The TA will engage a number of short-term international consultants to fulfill a number of specialist duties. They may include the following specialists and their specific duties.

- (i) **Case study specialist.** Work with participating multilateral development banks to examine how selected projects could better adapt to climate change. Present the findings of the case studies to ADB, subregional partners, and participating DMCs and work with them to see that recommendations are adopted, where feasible.
- (ii) **Communications specialist.** Coordinate and facilitate regional, subregional, and national meetings, seminars, and workshops. Prepare and disseminate meeting and workshop outputs. Write text for a website that communicates TA progress and all its major outputs.
- (iii) **Social safeguard specialist/social scientist.** Ensure that the expected outcomes avoid physical and economic displacement. If avoidance is not feasible, provide for mitigation, compensation at replacement costs, and livelihood restoration.
- (iv) **Financial specialist.** Prepare and manage financial issues relating to the design, selection, and implementation of SGAs.

B. **National Consultants** (minimum 100 person-months)

3. National consultants will be engaged for the formulation of environmental policy, review of development scenarios, website support, workshop facilitation, TA coordination reporting, SGA support, and administration.