



Bangladesh: Coastal Climate-Resilient Infrastructure Project

Project Name	Coastal Climate-Resilient Infrastructure Project	
Project Number	45084-002	
Country	Bangladesh	
Project Status	Active	
Project Type / Modality of Assistance	Grant Loan	
Source of Funding / Amount	Grant 0310-BAN: Coastal Climate-Resilient Infrastructure Project	
	Strategic Climate Fund	US\$ 10.00 million
	Grant: Coastal Climate-Resilient Infrastructure Project	
	IFAD Grants	US\$ 1.00 million
	Grant: Coastal Climate-Resilient Infrastructure Project	
	KfW Bankengruppe	US\$ 8.80 million
	Loan 2913-BAN: Coastal Climate-Resilient Infrastructure Project	
	Concessional ordinary capital resources / Asian Development Fund	US\$ 20.00 million
	Loan 8258-BAN: Coastal Climate-Resilient Infrastructure Project	
	Strategic Climate Fund	US\$ 20.00 million
Loan: Coastal Climate-Resilient Infrastructure Project		
International Fund for Agriculture and Development	US\$ 59.00 million	
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth	
Drivers of Change	Governance and capacity development Partnerships	
Sector / Subsector	Agriculture, natural resources and rural development - Rural flood protection - Rural market infrastructure Transport - Road transport (non-urban)	
Gender Equity and Mainstreaming	Effective gender mainstreaming	
Description	<p>This project is proposed under the Government of Bangladesh's Strategic Program for Climate Resilience (SPCR), prepared under the Pilot Program for Climate Resilience (PPCR). The PPCR is a part of the Strategic Climate Fund (SCF) within the Climate Investment Funds (CIF), to pilot and demonstrate ways to mainstream climate resilience in development planning and management. The SPCR was approved by the PPCR Sub-committee on 10 November 2010. Led by the Asian Development Bank (ADB), the World Bank and International Finance Corporation, proposed investments in the Bangladesh SPCR will focus on improving coastal embankments, rural connectivity, water supply and sanitation, promoting public-private financing, and capacity building for mainstreaming climate resilience, and knowledge management. As one of the projects approved for enhanced climate resilience under the SPCR, the Climate Resilient Infrastructure Improvement in Coastal Zone Project will improve livelihoods in the rural coastal districts vulnerable to climate variability and change.</p>	

Project Rationale and Linkage to Country/Regional Strategy

Bangladesh is one of the most vulnerable countries to climate variability and change because of its geographic location, low deltaic floodplain, and hydro-meteorological influence of erratic monsoon rainfall and other extreme climate events. Increased risks of severe flooding, more frequent extreme weather events, salinity intrusion, erratic rainfall pattern, increased temperature and a potential sea level rise pose new risks to the rural infrastructure, particularly to the coastal districts. Rural infrastructure is directly vulnerable to the impacts of climate variability and change as well as indirectly, through changes to the surrounding environment. Changes in temperature are likely to impact road pavements. Extreme weather events such as stronger and/or more frequent cyclones and storm surges will affect the capacity of drainage and overflow systems to deal with stronger or faster velocity water flows. Increased salinity levels will reduce the structural strength of pavements and lead to precipitated rusting of the reinforcement in concrete structures, thereby reducing their effective life. Changes in rainfall pattern and water levels will impact road foundations with obvious consequences on their sustainability and robustness. To ensure its longevity and sustainability, any rural infrastructure investment, especially in coastal districts must be resilient to climate change associated extreme events. Inadequate attention to these impacts will increase the long-term costs of infrastructure investments, and the likelihood that such investments fail to deliver the intended benefits.

Climate change threatens the significant achievements made by Bangladesh in the last 2 decades in raising incomes and reducing poverty. In the country, women are relatively more vulnerable to extreme climate events because of poorer access to education and health services and economic opportunities; limited mobility; and various social restraints. By 2050, climate change impact is projected to result in an increase in the temperature by over 1.0 C and sea level rise of about 30 cm. This could make an additional 14% of the country extremely vulnerable to floods and dislocate more than 35 million people in the coastal districts. The country has an outstanding adaptation deficit and there exist substantial risks from severe flooding even in the current climate. According to a recent estimate, 87% of roads in the country will be substantially inundated due to climate change by 2050. The cost of adaptation for the railways, road network, embankments and drainage infrastructure to offset additional inundation due to climate change alone is estimated at \$ 2.7 billion. This estimate is conservative as it does not include the additional adaptation required in urban areas and unprotected river banks.

The project, while enhancing longevity and sustainability, will improve livelihoods in nine rural coastal districts prone to climate variability and change. The project will consider various climate proofing options both for engineering (subsurface conditions, material specifications, cross section and standard dimensions, drainage and erosion, and protective engineering structures), and non-engineering (maintenance, planning and early warning, knowledge products development and dissemination, capacity development and environmental management). ADB's Country Strategy and Program for Bangladesh (2006-10) and forthcoming Country Partnership Strategy (2011-15) both emphasizes the need for integration of disaster risk management and climate change adaptation and dealing with climate-induced natural disasters.

Impact	Improved livelihood in rural coastal districts vulnerable to climate change
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Project Outcome

Description of Outcome	Enhanced climate resilience of coastal infrastructure in 12 rural coastal districts benefiting poor and women
Progress Toward Outcome	Activities being carried out as planned. Procurement of civil works for construction/improvement of roads and markets nearly completed. 36.40 km upazila road and 450.25 m bridge/culvert have been completed.

Implementation Progress

Description of Project Outputs	<ol style="list-style-type: none"> 1. Improved road connectivity 2. Improved market services 3. Enhanced climate change adaptation capacity
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Status of Implementation Progress (Outputs, Activities, and Issues)	<p>Construction of 78.44 km Upazila road improvement works are ongoing</p> <p>686.3 m bridge/culvert constriction works are ongoing.</p> <p>114.18 km Union road improvement works are ongoing.</p> <p>236.76 km village road improvement works are ongoing.</p> <p>1750 m Bridge/culvert constriction works are ongoing.</p> <p>56 are ongoing</p> <p>Construction of 60 Community markets are ongoing</p> <p>Work is ongoing.</p> <p>Construction of 12 boat landings are ongoing</p> <p>Training is ongoing</p> <p>Construction ongoing for 6 cyclone shelters</p> <p>Improvement ongoing for 5 cyclone shelters</p> <p>Construction ongoing for 4 km ongoing</p> <p>Ongoing</p> <p>Ongoing-will be launched in July 2016</p> <p>website established</p> <p>Ongoing in conformity with Bangladesh Climate Change Strategy and Action Plan 2009</p> <p>Ongoing</p>
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Geographical Location

Safeguard Categories

Environment	B
Involuntary Resettlement	A
Indigenous Peoples	B

Summary of Environmental and Social Aspects

Environmental Aspects	<p>An environmental assessment and review framework (EARF), and initial environmental examinations, including environmental management plans (EMPs) for sample subprojects have been prepared. The EARF sets out the requirements for project screening and classification, subproject selection, information disclosure to, and consultation with, the affected people, EMP development and implementation, and monitoring and reporting. The initial environmental examinations found the planned subprojects to have only small and localized adverse impacts on the environment, which can be managed by the mitigation measures proposed in the EMPs. IFAD and KfW indicated that they will require that the subprojects financed by them in parallel comply with the same environmental standards as those financed by ADB.</p>
Involuntary Resettlement	<p>It is expected that there will be some land acquisition and minor physical displacement required on many of the road sub-projects as they will be raised and widened to provide climate resilience. Land acquisition and resettlement will be negligible under the market and cyclone shelter components, as construction is expected to remain within existing boundaries or on government lands. The government expects that much of the land acquisition will be through voluntary donation. As refusal to donate land or enter into a negotiated financial settlement would necessarily lead to expropriation (in order to retain climate resilient design integrity), any sub-project that entails land acquisition (either through voluntary or involuntary means) or physical displacement will be subject to a resettlement plan. As the project is sector like, and most of the sub-projects are not yet selected, a resettlement framework has been prepared. This will guide the preparation and implementation of land acquisition and resettlement activities across the entire project. Resettlement plans have been prepared for two sample sub-projects and a due diligence for one sub-project which can be used as an example for future planning. IFAD and KfW indicated that they will require that the subprojects financed by them in parallel comply with the same social safeguards standards as those financed by ADB.</p>
Indigenous Peoples	<p>Project preparation indicated that there were no indigenous people (IP) communities within the context of ADB's Safeguard Policy Statement, impacted by any of the three sample sub-projects analyzed. Given that there will be many more sub-projects designed and undertaken over the course of the project, and the project area contains small numbers of distinct and vulnerable IP communities, a Small Ethnic Communities Planning Framework has been developed to guide the screening and planning process during implementation. IFAD and KfW indicated that they will require that the subprojects financed by them in parallel comply with the same social safeguards standards as those financed by ADB.</p>

Stakeholder Communication, Participation, and Consultation

During Project Design	<p>The initial stakeholders are the Ministries of Finance, Planning, and Local Government, Rural development and Cooperatives of Government of Bangladesh. The executing agency will be Local Government Engineering Department. At the local level, stakeholders include local administration, union councils, farmers, market users and general people of the project area. Both women and men have stake in all categories of infrastructure. Various line departments and their local offices will also be involved. The demand group includes farmers, retail traders and businessmen, small entrepreneurs, wholesale traders, woman traders, poor and vulnerable women, rickshaw pullers and van drivers, transport owners, school and college teachers, students and other people of the community.</p> <p>Different types of consultation and participation will be required at various levels. The PPTA will be implemented through a participatory and consultative approach with the executing agency staff, and other stakeholders. Stakeholder consultation will be a key activity to reach consensus on the project designs.</p>
During Project Implementation	<p>The PPTA will assess the participation methods and lessons from the ongoing rural infrastructure projects and identify ways for effective stakeholder participation during the implementation phase. An effective, practical and inclusive participation strategy will be developed based on the findings of the consultations and considering the needs and interests of diverse groups of the population. It will also include strengthening capacity of LGED and union councils in managing a participatory development process.</p>

Business Opportunities

Consulting Services	<p>Two consulting packages will be procured under the project: (i) the Design and Supervision Consultants will be engaged to undertake detailed design, draft bidding documents and supervise the construction works, and the (ii) Management Support Consultants will support the PMO and will be responsible for delivery of all capacity building services. Consultants will be engaged through consulting firms (international). Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a quality/cost ratio of 90/10 and full-technical proposals.</p>
Procurement	<p>The project will involve procurement of civil works, vehicles , equipment, and training/workshop/studies packages through international and national competitive bidding procedures, or shopping, as appropriate. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines. For IFAD and KfW, their procurement guidelines will be followed.</p>

Responsible Staff

Responsible ADB Officer	Ahmad, Zahir U.
Responsible ADB Department	South Asia Department
Responsible ADB Division	Bangladesh Resident Mission
Executing Agencies	<p><i>Local Government Engineering Department</i> <i>SSWRDSP@LGED.ORG</i> <i>LGED Bhaban (Level 6), Agargaon</i> <i>Sher-e-Bangla Nagar,</i> <i>Dhaka 1207, Bangladesh</i></p>

Timetable

Concept Clearance	02 Nov 2011
Fact Finding	04 Jun 2012 to 19 Jun 2012
MRM	15 Aug 2012
Approval	28 Sep 2012
Last Review Mission	-
Last PDS Update	27 Mar 2017

Grant 0310-BAN

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2012	09 Jan 2013	28 Feb 2013	30 Jun 2019	-	-

Financing Plan		Grant Utilization			
Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage	

Project Cost	10.00	Cumulative Contract Awards			
ADB	0.00	28 Sep 2012	0.00	8.95	90%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	10.00	28 Sep 2012	0.00	6.83	68%

Loan 2913-BAN

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2012	09 Jan 2013	28 Feb 2013	30 Jun 2019	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	51.20	Cumulative Contract Awards			
ADB	20.00	28 Sep 2012	0.00	15.34	84%
Counterpart	31.20	Cumulative Disbursements			
Cofinancing	0.00	28 Sep 2012	0.00	10.97	60%

Loan 8258-BAN

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2012	09 Jan 2013	28 Feb 2013	30 Jun 2019	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	20.00	Cumulative Contract Awards			
ADB	0.00	28 Sep 2012	0.00	15.43	77%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	20.00	28 Sep 2012	0.00	11.38	57%

Project Page <https://www.adb.org/projects/45084-002/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=45084-002>

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