

 Early Warning System

ADB-59172-001

Adaptive River System Management Project-FMRF



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## Quick Facts

<b>Countries</b>	Bangladesh
<b>Specific Location</b>	Brahmaputra River, Ganges Delta, Meghna
<b>Financial Institutions</b>	Asian Development Bank (ADB)
<b>Status</b>	Proposed
<b>Bank Risk Rating</b>	A
<b>Borrower</b>	Government of Bangladesh - Bangladesh Water Development Board
<b>Sectors</b>	Climate and Environment, Law and Government
<b>Investment Type(s)</b>	Loan
<b>Investment Amount (USD)</b>	\$ 150.00 million



## Project Description

According to the Bank's website, the project will adopt integrated solutions to unlock multiple socio-economic and regional benefits beyond immediate hazard mitigation. The project is integrated and cross-sectoral in nature, which will address the stabilization of the Lower Jamuna corridor extending downstream of the Bangabandhu Bridge, promote environment conservation and eco-system services, and enhance disaster risk management including livelihood supports to poor and vulnerable people in project areas. The main structural measures include (i) flood embankments at selected reaches, (ii) riverbank protections along the Jamuna, Ganges, and Padma rivers, (iii) off-take structures at Jamuna to regulate the flow from the Jamuna into the distributaries both during wet and dry seasons and managing the volume of sediment entering into Dhaka river systems, (iv) revitalization of ecologically dead distributaries and wetlands with combination of measures, (v) fish passes, and (vi) emergency shelters on Charland.

In addition to hazard mitigation and environment conservation, the project will equally prioritize the exposure and vulnerability reduction measures, including riverbank erosion forecasts with advanced physics-based numerical modeling, early warning systems, community based disaster preparedness, upgrading district disaster information center, application of Artificial Intelligence (AI) in flood and erosion risk management, and application of remote Sensing and GIS technology to improve asset management including operation and management (O&M;). Community-based disaster risk management will follow a systematic approach and includes volunteers and rescue provisions including purchase of shallow water rescue boats, and community based hazard mapping to improve effectiveness in emergency response.



## Early Warning System Project Analysis

The project will rehabilitate 104 km of riverbanks along the Padma and Jamuna, construct 5.3 km of new protections including fish passes, and upgrade or build offtake structures and distributaries to improve flow regulation and support ecological restoration. These river sections are environmentally sensitive and may host endangered species, with three legally protected dolphin sanctuaries located within the project's influence area. While the project offers significant environmental benefits, the civil works -- particularly dredging and activities near sensitive habitats -- may alter river flow, sediment dynamics, and floodplain connectivity, potentially affecting biodiversity, fisheries, wetlands, and overall ecosystem health. These risks require detailed biodiversity, hydrology, and habitat studies, as well as public consultations. Based on the scale and sensitivity of potential impacts, the project is preliminarily classified as Environment Category A under ADB's Safeguard Policy Statement (2009).

The project will require land acquisition and resettlement primarily for the construction of approximately 5.3 km of flood embankments, which involve acquiring mainly agricultural land. Other riverbank stabilization activities -- including adaptation works, wave protection, distributary rehabilitation, new offtake structures, and nature-based solutions -- are not expected to cause involuntary resettlement, as these works will be implemented entirely from the river side. Based on initial assessments of identified subprojects, the project is currently classified as Category B for involuntary resettlement, subject to confirmation following a full social impact assessment by the resettlement specialist.

The project is not expected to affect Indigenous Peoples (IPs). This will be confirmed through a due diligence report, which will verify that the project does not impact IP territories, natural or cultural resources, or livelihoods based on IP screening. Accordingly, the project is classified as Category C for Indigenous Peoples impacts.



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## Investment Description

- Asian Development Bank (ADB)

The financing amount is \$150,000,000, which will be financed on a loan basis by ADB's ordinary capital resources.



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## Contact Information

*No contacts available at the time of disclosure.*

### ACCESS TO INFORMATION

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