India: Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program - Project 2

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program - Project 2</th>
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<tbody>
<tr>
<td>Project Number</td>
<td>38412-033</td>
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<tr>
<td>Country</td>
<td>India</td>
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<tr>
<td>Project Status</td>
<td>Active</td>
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<tr>
<td>Project Type / Modality of Assistance</td>
<td>Loan</td>
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<tr>
<td>Source of Funding / Amount</td>
<td>Loan 3755-IND: Assam Integrated Flood and River Erosion Risk Management Investment Program - Project 2, Ordinary capital resources: US$ 60.16 million</td>
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**Strategic Agendas**
- Environmentally sustainable growth
- Inclusive economic growth

**Drivers of Change**
- Governance and capacity development
- Knowledge solutions
- Partnerships

**Sector / Subsector**
- Agriculture, natural resources and rural development - Rural flood protection - Rural water policy, institutional and capacity development - Water and other urban infrastructure and services - Urban flood protection
- Water and other urban infrastructure and services - Urban flood protection

**Gender Equity and Mainstreaming**
- Effective gender mainstreaming

**Description**
Incorporating lessons from Project 1, Project 2 for $60.16 million will fund a combination of structural and nonstructural measures in the three subproject areas (Palasbari-Gumi, Kaziranga, and Dibrugarh) along the Brahmaputra River in Assam. The structural measures will include: (i) 20 kilometers (km) of riverbank protection works with innovative technologies, combined with 5 km of pro-siltation measures; (ii) upgrade of 13 km of flood embankments; and (iii) construction of four sluice gates and one pumping station to improve drainage. Monitoring and adaptive maintenance of the infrastructure will also be included to cope with the highly dynamic morphological processes of the river. The nonstructural measures will continue the methodologies used under Project 1 and cover community involvement and community-based flood risk management activities.

**Project Rationale and Linkage to Country/Regional Strategy**
The investment program tackles one of the critical development inhibitors of Assam: recurrent flooding from the Brahmaputra River (the world fourth largest river), exacerbated by unpredictable erosion of its riverbanks. Since the Great Assam Earthquake in 1950, the river has widened from about 6 to 9 km along its 650 km course in Assam. Natural hazards and remoteness have led to a slower development of the economy compared with the national average, while population growth and density are similar. Therefore, Assam faces high poverty and depends highly on agriculture.

**Impact**
Economic vulnerability and social disruption caused by flood and riverbank erosion risks in Assam reduced.

**Project Outcome**
Resilience to flood and riverbank erosion risks in selected flood-prone areas along the Brahmaputra River increased.

**Progress Toward Outcome**
The loan was signed on 13 December 2018 and declared effective on 21 February 2019.

**Implementation Progress**
Institutional and knowledge-based flood and riverbank erosion risk management (FRERM) planning strengthened Comprehensive FRERM structural and nonstructural measures developed, implemented and maintained in three subproject areas Multidisciplinary investment program management strengthened.

**Status of Implementation Progress (Outputs, Activities, and Issues)**
All major civil packages have been awarded. Tender for Interior Works for Assam Water Centre (AWC-2) has been floated.

**Geographical Location**
Dibrugarh, Kaziranga, Palasbari

**Safeguard Categories**
- Environment: B
- Involuntary Resettlement: A
- Indigenous Peoples: B

**Summary of Environmental and Social Aspects**
Project 2, in accordance with ADB SPS 2009, is categorized as "B" for environment. The Initial Environmental Examination (IEE) reports including Environmental Management and Monitoring Plans (EMMP) and updated Environmental Assessment and Review Framework (EARF) were prepared during project preparation. The Government through the EA is obliged to implement the recommendations from the IEE report.
Involuntary Resettlement

The Project is classified as involuntary resettlement category A. The project intervention measures primarily include the bank protection works, renovation of existing flood embankments and strengthening and extension of existing dykes. A strip acquisition of land is needed to strengthen and extend the protection measures to cope with riverbank erosion. The majority of acquired lands are located along the eroding riverbank line, which would be lost without the project works. To implement the protection measures, project 2 will require 51.85 hectares of land (30.09 hectares of private and 12.75 hectares government land) in package 1 & 2 of Dibrugarh subproject, 15.54 hectares (10.46 hectares private and 5.08 hectares government land) in package 1 of Palasbari subproject, 15.09 hectares (3.76 hectares private and 11.33 hectares government land) in package 1 & 2 of Gumi subproject and 18.89 hectares (5.02 hectares private and 13.63 hectares government land) in package 3 of Kaziranga subproject. A resettlement framework was prepared for the project following central and state government laws and regulations, and ADB’s Safeguard Policy Statement (2009). Based on the resettlement framework, Resettlement plans for these subprojects were prepared and disclosed.

Indigenous Peoples

Project 2 has been categorized as B from Indigenous Peoples policy perspective. The project has prepared an indigenous peoples development framework following central and state government laws and regulations, and ADB’s Safeguard Policy Statement (2009). The Resettlement and Indigenous Peoples Plan has been prepared for the Kaziranga subproject.

Stakeholder Communication, Participation, and Consultation

During Project Design
Stakeholder communication, participation and consultation conducted during project design.

During Project Implementation
The public consultation and disclosure program will remain a continuous process throughout the subprojects implementation.

Business Opportunities

Consulting Services
All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time).

Procurement
All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time). All procurement of goods and works will be undertaken in accordance with ADB’s Procurement Guidelines (2015, as amended from time to time).

Responsible ADB Officer
Yadav, Rajesh

Responsible ADB Department
South Asia Department

Responsible ADB Division
India Resident Mission

Executing Agencies
Flood and River Erosion Management Agency of Assam
CEO@FREMAASSAMGOV.IN
Office of the CEO, FREMAA
4th Floor, Nayanitara Supermarket Building
Six Mile, Guwahati, Pin - 781022

Timetable

Concept Clearance
Fact Finding
MRM
03 Sep 2018
Approval
07 Dec 2018
Last Review Mission
Last PDS Update
28 Jun 2019

Loan 3755-IND

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<td>21 Feb 2019</td>
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Project Page
https://www.adb.org/projects/38412-033/main

Request for Information
http://www.adb.org/forms/request-information-form?subject=38412-033

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02 October 2020

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