

 Early Warning System

WB-P510002

Assam Disaster Resilient Hill Roads Development Project (ADRRDP)



Quick Facts

Countries	India
Specific Location	Assam
Financial Institutions	World Bank (WB)
Status	Approved
Bank Risk Rating	A
Voting Date	2026-01-13
Borrower	Government of India - Assam Public Works (Roads) Department, EAP
Sectors	Infrastructure, Transport
Investment Type(s)	Loan
Investment Amount (USD)	\$ 355.00 million
Project Cost (USD)	\$ 443.75 million



Project Description

According to the Bank's website, the proposed project development objective is to enhance the climate disaster resilience of hill roads and promote sustainable and inclusive development in hilly areas of Assam.

The project focuses on upgrading 360 km of damaged roads with climate-resilient features to mitigate flooding and landslides. It includes widening roads, stabilizing slopes using civil and bioengineering methods, enhancing drainage and bridge structures, and developing alternative escape routes. Rehabilitation efforts will involve pavement reconstruction and drainage improvements, supported by Performance-Based Maintenance Contracts and various consultancy services. Additionally, an electronic Project Management System will be implemented for real-time monitoring, alongside Road User Satisfaction Surveys and technical advisory support from academic institutions. The project will introduce a digital system for real-time inspection and monitoring of road works, alongside an institutional review to strengthen Assam's Road Safety Lead Agency. Work zone safety will be integrated throughout, with an independent road safety audit ensuring best practices.

The project aims to develop a green rural freight and public transportation system by establishing rural logistics hubs equipped with EV charging stations, solar-powered infrastructure, and amenities like workshops, refreshment areas, and transport bays. It includes a freight terminal linked to a district industrial park, demonstration ropeways for farm produce, and georeferenced transport stations with high-speed internet. Additional facilities include packaging, storage, sanitation, and roadside marketplaces. The project focuses on enhancing climate resilience and disaster preparedness in road infrastructure. It includes developing a climate adaptation framework/policy through multi-hazard risk analysis, integrating structural and bioengineering solutions into road design and maintenance. A Flood and Landslide Early Warning System (FLEWS) will be established to improve monitoring, forecasting, and communication with road users and communities, integrated into APWRD's Road Asset Management System. Additionally, institutional capacity will be strengthened through the formulation of a robust transport emergency management and response plan to ensure rapid recovery after disasters.



Early Warning System Project Analysis

The Assam Hill Roads Project presents significant environmental and social risks due to its implementation in the ecologically sensitive and topographically complex Dima Hasao district. Environmental risks include soil erosion, slope instability, landslides associated with hill cutting and excavation, and pollution from dust, noise, wastewater, and improper waste disposal. The project area lies within the Indo-Burma biodiversity hotspot. It includes road corridors near Key Biodiversity Areas (KBAs), Reserved Forests, and Critical Habitats, posing potential risks to endangered flora and fauna. Additional concerns include the extensive generation of surplus excavated earth during construction, which, if not correctly managed, could lead to sedimentation, disposal issues, and environmental degradation. Indirect and cumulative impacts, such as increased traffic, sedimentation, and overlapping infrastructure investments, may contribute to long-term environmental degradation if not properly managed.

On the social side, the project involves land acquisition and livelihood impacts, particularly affecting Indigenous/Tribal communities in the Dima Hasao district. These impacts include both physical displacement and loss of income generating assets. Labor influx during construction poses additional risks, including pressure on local services, increased exposure to communicable diseases, and potential for sexual exploitation, abuse, or harassment (SEA/SH). Road safety is a significant concern in steep and landslide-prone areas, especially for communities close to the alignment. Culturally significant sites have also been identified along the corridors—for example, two inscribed stones were found near one of the priority road alignments—and while direct impacts are not anticipated, chance find procedures will be applied to all civil works to manage any discoveries. Over the long term, improved road connectivity may lead to changes in settlement patterns, land use, and social dynamics, which will require careful monitoring and inclusive stakeholder engagement.



Investment Description

- World Bank (WB)

Total Project Cost: US\$ 443.75 million

IBRD Commitment: US\$ 355.00 million



Contact Information

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ACCESS TO INFORMATION

To submit an information request for project information, you will have to create an account to access the Access to Information request form. You can learn more about this process at: <https://www.worldbank.org/en/access-to-information/request-submission>

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Bank Documents

- - - P510002- - Procurement Plan (English)
- Appraisal Environmental and Social Review Summary (ESRS) - Assam Disaster Resilient Hill Roads Devel
- Appraisal Project Information Document (PID)
- Climate Finance Assessment (P510002)
- Concept Project Information Document (PID) (English)
- Disclosable Version of the ISR - Assam Disaster Resilient Hill Roads Development Project (ADRHRDP) -
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- Environmental and Social Commitment Plan (ESCP) - Assam Disaster Resilient Hill Roads Development Pr
- Environmental and Social Impact Assessment Assam Disaster Resilient Hill Area Roads Development Proj
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- IP/SSAHUTLC Planning Framework Assam Disaster Resilient Hill Area Roads Development Project (ADRHRDP)
- IP/SSAHUTLC Planning Framework Assam Disaster Resilient Hill Area Roads Development Project (ADRHRDP)
- Labor Management Procedures Assam Disaster Resilient Hill Area Roads Development Project (ADRHRDP)
- Official Documents- Disbursement and Financial Information Letter for Loan 99160-IN.pdf
- Official Documents- Loan Agreement for Loan 99160-IN.pdf
- Official Documents- Project Agreement for Loan 99160-IN.pdf
- Resettlement Plan Assam Disaster Resilient Hill Area Roads Development Project (ADRHRDP) (P510002)
- Stakeholder Engagement Plan (SEP) - Assam Disaster Resilient Hill Roads Development Project (ADRHRDP)

Media

- India: World Bank Approves Three Projects in Assam State to Increase Access to Markets, Jobs and Ser