

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA8895

Project Name	National Cyclone Risk Mitigation Project-II (P144726)
Region	SOUTH ASIA
Country	India
Sector(s)	Flood protection (50%), Rural and Inter-Urban Roads and Highways (40%), Telecommunications (10%)
Theme(s)	Natural disaster management (50%), Climate change (20%), Rural services and infrastructure (20%), Vulnerability assessment and monitoring (10%)
Lending Instrument	Adaptable Program Loan
Project ID	P144726
Borrower(s)	Department of Economic Affairs
Implementing Agency	Gujarat State Disaster Management Authority, Department of Relief and Rehabilitation, Department of Disaster Management, Kerala Department of Revenue, Department of Disaster Management
Environmental Category	A-Full Assessment
Date PID Prepared/Updated	09-Oct-2014
Date PID Approved/Disclosed	10-Oct-2014
Estimated Date of Appraisal Completion	03-Oct-2014
Estimated Date of Board Approval	18-Nov-2014
Decision	

I. Project Context

Country Context

India is one of the most populated countries in the world with over one billion people and is vulnerable to a wide range of natural hazards, particularly cyclones, floods, earthquakes, drought and landslides. The Global Climate Change and Vulnerability Index 2011, ranked India second in 'extreme risk' countries in the world vulnerable to natural and climate change hazards. It has a coastline of 7,516 km, of which approximately 5,700 km is exposed to cyclones of various degrees of intensity, and an estimated 40% of its total population living within 100 km of the coastline that can be potentially affected. As storm surges and climate change-induced sea level rise become more pronounced, hazard events are set to grow in frequency and intensity. Economic losses due to disaster are also on the rise both from an increase in the number of disaster events and from an increase in the average loss associated with each disaster event, coupled with a greater concentration of exposed assets.

India's high level of poverty, rapid urban infrastructure growth, high population density, and limited community awareness, further increase the vulnerability of its people to the impacts of natural hazards and climate change. New residents, urban poor living in peri-urban areas, and informal settlements concentrated in high risk zones are particularly vulnerable to natural hazards due to lack of adequate infrastructure, insufficient enforcement of building codes, a near absence of financial and insurance mechanisms that help transfer risk, and limited access to basic emergency services. It is estimated that around 200 million city dwellers in India will be exposed to storms and earthquakes by 2050 (World Bank and United Nations 2010).

In the past decade, the Government of India (GoI) has shifted from a reactive emergency response to being proactive in implementing disaster preparedness and risk reduction initiatives. This change has led to an increased focus towards future-oriented risk mitigation programs and strategies aimed at ultimately benefiting millions of people vulnerable to natural disaster risks at the national, state and district - including village - level. Recent events illustrate the benefits of this approach.

On October 12, 2013, Cyclone Phailin hit the states of Odisha and Andhra Pradesh with wind gusts up to 220km. per hour, heavy rains measuring up to 25cm. and storm surge over 3m; the sea pushed in as much as 400m. in parts of the coast. It was the strongest cyclone to hit the Indian coast in the past 14 years: a category 4 cyclone similar to the Super Cyclone 05B that hit Odisha in 1999 and killed more than 10,000 people, destroyed 275,000 homes and left 1.67 million homeless. The cyclone hit a densely populated area, with 4.5 million people within the hurricane force wind path and significant informal housing affected.

Reports however came of a death toll of 44, which was 0.5 percent that of the 1999 cyclone. The ongoing National Cyclone Risk Mitigation Project (NCRMP-I), and the Odisha Cyclone Reconstruction Project that closed in the year 2004, contributed to this enhanced resilience through: a) improved communication systems; b) improved access to emergency shelters, and evacuation routes; c) enhanced response capacity of the local communities; and d) strengthened disaster risk management at the Center. The state governments, in collaboration with the National Disaster Management Agency (NDMA) evacuated over 1 million people from low-lying coastal areas in Odisha and Andhra Pradesh, the largest such operation in India's history.

Sectoral and institutional Context

India's commitment to disaster preparedness and risk reduction at the national and state levels prompted the enactment of the Disaster Management Act in 2005, establishing the NDMA and State Disaster Management Authorities (SDMAs). NDMA has proactively formulated guidelines and procedures for dealing with specific natural disasters and is mandated with framing policies, plans and guidelines for Disaster Management.

The World Bank has significantly increased its support to India in advancing its Disaster Risk Management (DRM) capacity. The Bank is financing five projects that are under implementation: NCRMP I, Tamil Nadu and Puducherry Coastal Disaster Risk Reduction Project, Bihar Kosi Flood Recovery Project, Uttarakhand Disaster Recovery Project, and the Odisha Disaster Recovery Project. In addition to reconstruction and adaptation infrastructure, all of these projects finance activities to improve DRM capacity at the state and national levels, including analytical work, equipment, training, and in particular the establishment of systems for better risk management such

as improved forecasting, early warning systems, community-based DRM, multi-hazard risk assessments for planning, and decision support systems.

The NCRMP is the first Bank funded- program in India exclusively focusing on ex-ante disaster risk mitigation. It is being implemented by the NDMA with support from the Ministry of Home Affairs (MHA), GoI, and focuses on cyclone-prone coastal States and UTs. The project is part of a broader, national multi-hazard mitigation program taken up by the NDMA that includes understanding hazards like seismic risk, floods, landslides and the establishment of a National Disaster Management communication network.

Despite a slow start and the subsequent impact of Cyclone Phailin on implementation, NCRMP-I has achieved significant progress: construction of 84 shelters has already been completed as well as 550km of evacuation roads and 11 bridges. Odisha has awarded all of its contracts while Andhra Pradesh has only 12 contracts remaining to be awarded. More than 400,000 people directly benefited from infrastructure already completed under NCRMP I, while a million people were evacuated with support from infrastructure and systems supported by the project. By the end of NCRMP I, infrastructure will benefit around 1.3 million people, and the entire coastal population will be covered by early warning systems.

The proposed NCRMP II seeks to take forward the program to the remaining states, namely Gujarat, Maharashtra, West Bengal, Kerala and Karnataka, and is triggered by implementation readiness of these states. All the states, except for Karnataka have met their readiness criteria. Karnataka's investment proposal was preliminarily appraised and will be finalized during project implementation. Under NCRMP II, an additional 1.6 million people will directly benefit from cyclone risk mitigation infrastructure, while millions more will be covered by early warning systems. Taking into consideration the projects: NCRMP I, CDRRP and NCRMP II the entire coastline of mainland India will benefit from advanced early warnings and risk mitigation infrastructure.

Triggers for NCRMP II

II. Proposed Development Objectives

The Project Development Objective is to reduce vulnerability to cyclone and other hydro-meteorological hazards of coastal communities in project States, and increase the capacity of the State entities to effectively plan for and respond to disasters.

III. Project Description

Component Name

Component A: Early Warning Dissemination Systems (EWDS)

Comments (optional)

The objective of this component is to reduce the vulnerability of coastal communities by addressing the existing gap in dissemination of warning to the communities. Currently NDMA is leading the development of EWDS for the states of Andhra Pradesh and Odisha, as part of NCRMP I, which includes the necessary equipment and training. This component will support the expansion of EWDS to Gujarat, Maharashtra, West Bengal, Kerala, and Karnataka.

Component Name

Component B: Cyclone Risk Mitigation Infrastructure

Comments (optional)

The objective of this component is to increase the preparedness and reduce the vulnerability of coastal communities through strategic infrastructure investments, i.e., improving their capacity/ access to emergency shelter, evacuation routes and protecting critical infrastructure against cyclones and hydro meteorological hazards to reduce potential damages and ensure continuation of services. The portfolio of risk mitigation infrastructure under this component includes a broad range of investment such as multipurpose emergency shelters, up-grading roads, underground electric cabling, bridges, up-grading saline embankments and bunds.

Component Name

Component C: Technical Assistance for Disaster Risk Assessment and Recovery

Comments (optional)

The objective of this component is to improve the quality of available information on multi-hazard risks for decision making, and the assessment of strategies for risk financing. Subcomponent C.1 will focus on Multi-hazard risk modeling and assessment, and Subcomponent C.2: will focus on Strengthening Emergency Recovery Capacity.

Component Name

Component D: Understanding and Strengthening Multi-Hazard Risk Management

Comments (optional)

The objective of this component is to understand and strengthen National Multi-hazard risk management at a national level. The components would entail: Subcomponent D.1: Enhancing the Capacity for Disaster Risk Management and response in non-coastal states, Subcomponent D.2: Comprehensive multi-hazard risk financing strategy, and Subcomponent D.3: Design of a National Seismic Risk Mitigation Program.

Component Name

Component E: Project Management and Implementation Support

Comments (optional)

This component will finance the incremental operating costs of the Project Management Unit (PMU) and the State PIUs.

IV. Financing (in USD Million)

Total Project Cost:	364.00	Total Bank Financing:	290.00
Financing Gap:	0.00		
For Loans/Credits/Others			Amount
BORROWER/RECIPIENT			74.00
International Development Association (IDA)			290.00
Total			364.00

V. Implementation

The project proposes to replicate the existing institutional arrangements under NCRMP I both at the central and state levels. The NDMA, on behalf of MHA, will manage the project and will have overall responsibility for implementation. NDMA will strengthen their existing PMU, headed by a Project Director and supported by technical experts and management staff. At state level the existing nodal agency for disaster management (e.g., State Disaster Management Authorities or Revenue/Relief Departments) would be responsible managing the project and will have a State Project Implementation Units (SPIU) playing the coordination/project management role. The SPIUs are

headed by state Project Directors' reporting to the respective heads of the nodal agencies. To provide a strategic direction, oversight and approvals, Steering Committees are constituted both at the central and state levels, consisting of various key departmental/ministry heads. The execution of works and procurement of equipment will be undertaken by the relevant line departments after approval from the state PIU. Implementation of Components A, C, and D will be managed by NDMA.

In order to ensure effective environmental and social management, an Environment and Social Management Framework (ESMF) has been adopted for the project. The ESMF was originally prepared for NCRMP I, wherein it was applied and implemented in the two participating states of Odisha and Andhra Pradesh. The framework has now been revised/updated and is being used for NCRMP II. The ESMF will serve as a comprehensive and a systematic guide covering policies, procedures and provisions, which will be integrated with the over-all project cycle to ensure that the environmental and social issues are systematically identified and integrated into the project/sub-project cycle. It has been designed to ensure compliance to applicable GoI and state laws/regulations apart from achieving the requirements set forth in various applicable Bank policies. The ESMF was disclosed in the World Bank-s Infoshop on October 7, 2014. Other relevant project documents (including screening reports) will be disclosed on the NDMA and the state websites in line with the requirements of Bank's Operational Policies.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04	x	
Forests OP/BP 4.36		x
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11	x	
Indigenous Peoples OP/BP 4.10		x
Involuntary Resettlement OP/BP 4.12	x	
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

Comments (optional)

VII. Contact point

World Bank

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