INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC2951

Date ISDS Prepared/Updated: 18-Feb-2014

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I. BASIC INFORMATION

A. Basic Project Data

Country:	India	**Project ID:**	P144726
Project Name:	National Cyclone Risk Mitigation Project-II (P144726)		
Task Team Leader:	Saurabh Suresh Dani		
Estimated Appraisal Date:	10-Feb-2014	**Estimated Board Date:**	29-Jul-2014
Managing Unit:	SASDC	**Lending Instrument:**	Adaptable Program Loan
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 monit oring (10%)		

Financing (In USD Million)

Total Project Cost:	320.00	Total Bank Financing:	250.00
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	70.00
International Development Association (IDA)	250.00
Total	320.00

Environmental Category:	A - Full Assessment
Is this a Repeater project?	No

B. Project Objectives

The Project Development Objective of the National Cyclone Risk Mitigation Project (II) (NCRMP-II) is to reduce vulnerability of coastal communities in project states to cyclone and other hydro meteorological hazards.

C. Project Description

Coastal regions typically possess rich human and natural resources and are important economic, social, and developmental drivers of the region. However, the coastal population and economic assets are prone to multiple hazards such as high frequency and intensity of cyclones, storm surges, and coastal floods.

The Govt. of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with World Bank assistance with a view to address the cyclone risks in the country. The project identified 13 cyclone prone states and Union Territories (UTs) with varying levels of vulnerability. These coastal States/UTs have further been divided into two categories based on their vulnerability to cyclone risks:

a. Category I: High vulnerability coastal States/UTs i.e. Andhra Pradesh, Gujarat, Odisha, Tamil Nadu and West Bengal.

b. Category II: Low vulnerability coastal States/UTs i.e. Goa, Karnataka, Kerala, Maharashtra, Andaman & Nicobar Islands, Daman & Diu, Lakshadweep and Pondicherry.

The project (NCRMP) was designed as a horizontal Adaptable Program Loan (APL) in three phases. Phase I (called NCRMP-I) is currently under implementation in the states of Odisha and Andhra Pradesh. This phase of the project (NCRMP II) is proposed to include states of Gujarat, Maharashtra and Kerala on the west coast, and West Bengal on the east coast. Remaining coastal states would be covered under the third phase III (NCRMP III).

The NCRMP-II is multi-state and multi-sectoral and is spread over a wide geography and has a large number of direct beneficiaries. The project will be developed under a multi-sector framework with investment activities aimed at reducing risk and enhancing mitigation along coastal Gujarat, Maharashtra, Kerala and West Bengal.

The Project will have five key components: A) Early Warning Dissemination System (EWDS) and Capacity building for coastal communities; B) Cyclone Risk Mitigation Infrastructure; C) Technical Assistance for Strengthening Capacity towards disaster risk mitigation; D) Project Management and Implementation Support; and (E) Emergency Contingent Financing. A short description of objectives and activities in each of the components is given below:

Component A: Early Warning Dissemination System and Capacity building for Coastal Communities (US$ 15 million): The over-all objective of this component is to reduce the vulnerability of coastal communities by addressing the existing gap in dissemination of warning to the communities. The component will support: A.1) Installation and operation of EWDS allowing the state and/or district/sub-district level control center to send communication directly to the villages using Global System for Mobile Communications (GSM)/Code Division Multiple Access (CDMA) based technology including strengthening emergency operation centers to channelize the warning through different communication modes. The component also includes providing satellite phones to key officials to fail proof the EWDS and also pilot new radio based wireless communication technology in one block in each state; and A.2) Strengthening capacity: (i) in operating, maintaining and regular use of the EWDS equipment by officials and village representatives, and (ii) of communities in disaster preparedness and response through disaster management plans, arranging mock drills etc.

The experiences gained in its implementation in Phase I will be integrated, improved and carried forward for the states of Kerala, Maharashtra, Gujarat and West Bengal as well as ensure uniformity in the EWDS. NDMA is in the process of hiring a consultant to help design and support procurement and installation of EWDS equipment for phase I which will also be used for Phase II.

Component B: Cyclone Risk Mitigation Infrastructure (US$ 278 million): The objective of this component is to improve the access to emergency shelter, evacuation and protection against cyclone and other hydro meteorological hazards such as wind storms, flooding and storm surge in high risk areas. Each of the states reviewed the existing system and gaps and developed risk mitigation infrastructure portfolio. For emergency shelters, identification mechanism included assessment of total requirement, available shelters including other government and private buildings and the gap. The portfolio includes a broad set of measures such as investments in multi-purpose emergency shelters, up-grading of existing roads and providing bridges suitable for evacuation, drainage improvement measures and repair and up-grading of existing embankments, and creation of corpus funds for operation and maintenance of emergency shelters.

In addition of use of such infrastructure for emergency purposes, improved road and bridge network will also increase access of local communities to health care, education and markets. Also, evacuation shelters will function as community halls, school classrooms, or vocational training centers assuring all round development of the community and will bring about a sense of ownership to ensure long term sustainability of the infrastructure created under the project.

Component C: Technical Assistance for Risk and Vulnerability Modeling and Capacity Building on Disaster Risk Management (US$ 10 million): The objective of this component is to help understand risk and vulnerabilities better, and prepare the key institutions for addressing them effectively across all coastal states and UTs. Under the on-going Phase I of the project, National Disaster Management Authority (NDMA) is undertaking a hazard and risk assessment of coastal India. The understanding of risk and vulnerabilities from Phase I will be carried forward through improved probabilistic risk modeling allowing for modeling of multi-hazard and cascading impacts of disasters along coastal India. In addition, the project under Phase II will also implement on pilot basis key findings from the Capacity Building study (at national, state and local level) being undertaken by National Institute of Disaster Management (NIDM) in Phase I.

In order to utilize the special skills required for implementation of the sub-component of Capacity Building under Component C, it is proposed to use NIDM as the implementing agency, which was set up under MHA through the Disaster Management Act-2005 of India. NIDM functions within the broad policies and guidelines laid down by the NDMA, and is responsible for planning and promoting training and research and information management in the area of disaster management. NDMA will be in charge of the risk modeling sub-component under Component C.

Component D: Project Management and Implementation Support (US$ 17million): This component provides support for project management by financing incremental operating costs for PMU, PIUs, nodal units in line departments and National Institute of Disaster Management (NIDM), office equipment, training and exposure visits and consulting services for specialist activities.

Component E: Contingent Emergency Financing (US$ 0 million) (all four states): Following an adverse natural event that causes a major natural disaster, the respective governments may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the government of Tamil

Nadu and/or Puducherry to request the Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of the emergency.

Disbursements would be made against a positive list of critical goods or the procurement of works, and consultant services required to support the immediate response and recovery needs. All expenditures under this component, should it be triggered, will be in accordance with BP/OP 8.0 and will be appraised, reviewed and found to be acceptable to the Bank before any disbursement is made. In accordance with BP/OP 8.00, this component would provide immediate, quick-disbursing support to finance goods (positive list agreed with the Governments), works, and services needed for response, mitigation, and recovery and reconstruction activities. Operating costs eligible for financing would include the incremental expenses incurred for early recovery efforts arising as a result of the impact of major natural disasters.

On the whole, the project is a strong example of integrating disaster risk management with objectives of climate change adaptation in building resilience of communities in dealing with impacts of hazards.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project involves four states, namely Gujarat, Kerala, Maharashtra and West Bengal.

Gujarat: The state of Gujarat has a large number of key ports and coastal settlements along its 1,600 km coastline. It serves as gateway for importing petroleum, gas and other bulk goods to North India. Gujarat has the largest share (at 23%) of the total Indian coastline. The width of its coastal tract varies from 7 to 15 km. The Gujarat coast has a high diversity of terrain, shelf depths and hydrology. Some parts of the coast are extremely flat and low lying .The highest tidal ranges in the Indian coast are witnessed in the Gulf of Khambat (up to 8 m). These characteristics can amplify storm surges and impact wide stretches unlike many other coastal regions of India. Two cyclone seasons are experienced in Gujarat: March to July (advancing southwestern monsoon) and September to November (retreating monsoon).

Maximum wind speed class of >200km/h (100 year return period) have been observed along the Saurashtra coast, specifically in Porbandar, Jamnagar and Junagadh districts which are exposed to the highest intensity of cyclonic and storm impact. The 182-200 km/h sub-class extends further inland to cover much of Jamnagar, part of Rajkot, Junagadh and Kachchh districts. About 90,000 houses mostly in Biomass spread over 1300 settlements are vulnerable to severe damages due to 100 year return period cyclones. A simulation of storm surge along the Gujarat coast substantiated by field work and observations indicate an estimated 291 settlements are prone to storm surges of various intensities along the Gujarat coast.

Maharashtra

Maharashtra, located in the north centre of India along the west coast, is the second largest state in terms of population and the third largest in terms of area and is spread over 307,713 square km. Maharashtra has the country's second largest urban population, and is about 43% urbanized. Mumbai, Maharashtra’s capital city is the principal financial center and a major commercial hub of the country. The Sahyadri mountain range (Western Ghat) rises to an average elevation of 1000m. It falls in steep cliffs, to the Konkan on the west. Owing to this mountain range and its topography, the

coastal part of the state, west of the Sahyadri is prone to heavy rainfall while the eastern part is dry.

Maharashtra is prone to a host of hazards. It is at moderate risk to Cyclones and storms. During the period from 1890 to 1995, 210 cyclonic depressions were recorded in the Arabian Sea. Out of these 19 (including 6 major ones) affected the Maharashtra-Goa coast. The Konkan region lies in the cyclone moderate to low damage risk zone since wind speeds rarely exceed 155km/h. Heavy urbanization has also increased vulnerability to hazards like urban flooding.

Kerala

Kerala has a geographical area of 38,863 square km. It lies between the Arabian Sea on the west and the Western Ghats on the east. Kerala's coast runs 580 km in length, while the state itself varies between 35 –120 km in width. Kerala receives an average annual rainfall of 3,100 mm mostly through seasonal monsoons and averages 120–140 rainy days per year. The excessive rainfall that the state receives every season, including from tropical cyclones, makes Kerala prone to severe landslides, flooding and coastal erosion.

The density of coastal urban population is 4,228 persons per square km, nearly twice the average urban density in the state. This puts a huge number of coastal communities at risk, exposing them to multiple natural hazards. Continuous occurrence of high intensity rainfall for a few days is the primary factor contributing to extreme floods in the State. Kerala has a unique need that of providing shelter to families affected by storms and flooding for up to 4 weeks duration during the monsoon season i.e. until flood waters recede. The shelters, therefore, need to be designed considering the need for longer periods of stay in terms of space, functional aspects and amenities.

Between1891 to 2007, 31 Cyclonic Storms / Severe Cyclonic Storms have affected the Kerala coast. During the past 35 years, Kerala has seen a total of severe Cyclonic Storms that originated over Bay of Bengal, crossed the eastern coast of India and reemerged into the Arabian Sea as a depression. Cyclones are usually accompanied by tidal waves which, on occasion, enter land up to a distance of 10 km, along with heavy rains and winds with speeds exceeding 50 km/h. People residing in habitations within a distance of 5 km from the sea coast are generally the worst affected with the inundation (varying between approximately 2.5 to 5 m) lasting for over 5-6 days. The Kerala coast was significantly affected by the 2004 Indian Ocean tsunami with maximum damages reported in the low coastal land of Kollam, Alleppey and Ernakulam districts.

West Bengal

West Bengal (WB) is a relatively small state in India's east but with a population of more than 90 million it is amongst the highest density states in the country. West Bengal has suffered from cyclones, floods, droughts and earthquakes. The coastal stretch of WB is highly vulnerable to cyclones and the frequency of storms crossing this belt is high. The most destructive element associated with an intense cyclone is storm surge which leads to inundations and coastline washout/ erosion. High storm surge in coastal WB is due to its peculiar bathymetry and the nature of the coastal belt. The northern part of the Bay of Bengal is very shallow. The coast is also landlocked on three sides. As a result, when a very severe cyclonic storm or cyclone approaches the coast, the enormous storm surge generated by the wind pressure submerges the coastal belt. Another peculiar characteristic of this coast are the innumerable rivers and rivulets criss-crossing islands that have elevations of 4 to 5 m above sea level. This makes these islands and the populations inhabiting them highly vulnerable.

On May 25th 2009, a severe cyclone, “AILA” lashed the WB coast causing destruction not only in the coastal blocks but also far inland. Coastal communities in WB are usually poor and often live in houses made of mud walls and thatched roofs, making them highly vulnerable to cyclones, high speed winds, precipitation and inundation.

E. Borrowers Institutional Capacity for Safeguard Policies

The project proposes to use the institutional arrangements (both at the central and state levels) and a safeguards framework similar to that followed for NCRMP-I. This approach would help in strengthening aspects/elements that have worked in the first project and facilitate in refining/focusing on issues that require some improvement.

Institutional Arrangements: The National Disaster Management Authority (NDMA), on behalf of Ministry of Home Affairs (MHA), will manage the project and will have over-all responsibility for implementation. NDMA is currently providing guidance to the four proposed States under NCRMP-II and all four states have developed the required investment proposals. Model DPRs have been created and first-year investments have been/are being identified in each of these four states.

The NDMA, which will be the central co-ordinating agency for this project, is familiar with the Bank’s safeguard requirements, through its involvement in NCRMP-I. On the environment and social management aspects, the Authority has gained basic familiarity with regard to the Bank’s safeguard requirements through the said on-going project. The state governments too, particularly those of Gujarat, Maharashtra and Kerala are generally aware of environmental issues and management requirements of the Bank on account of their involvement in Bank projects. NDMA will strengthen their existing PMU, headed by a Project Director and supported by technical experts and management staff. The current PMU set-up has one specialist each to handle environment and social aspects.

As in NCRMP-I, the NDMA will provide technical and monitoring support and will coordinate the over-all program. Implementation of the ESMF (including sub-project specific EMPs and RAPs in cases) will be the responsibility of the State PIUs.

At state level, the existing nodal agency for disaster management (e.g., State Disaster Management Authorities or Revenue/Relief Departments) would be responsible for managing the project. Within this department/agency, a State Project Implementation Units (SPIU) will be created to play the coordination/project management role. The proposed set-up is similar to the one that has been adopted for NCRMP-I states.

Safeguard Instruments: To understand, assess and mitigate issues related to environment management, land requirement, displacement and resettlement, the National Disaster Management Authority (NDMA) had conducted a study in participating states through consultants for NCRMP I. An Environmental and Social Management Framework (ESMF) was developed for avoiding, minimizing, mitigating and managing the identified environmental and social issues, which are likely to arise due to the implementation of sub-project level activities. This approach helped in effective environmental and social management in a scenario where multiple sub-projects were located in different parts of the coastal region across two states and their specific location was not known at the time of the over-all project design.

The ESMF required that each sub-project investment to undergo a systematic environmental and

social screening to identify the likely impacts. In case significant impacts were identified, detailed impact assessment studies were required be carried out and sub-project specific environmental management plans (EMPs) and resettlement action plans (RAPs) were to be prepared. The management of environmental and social issues specifically with regard to the approach used for screening of proposed sub-projects was based on a robust and scientific methodology and has been successfully used in NCRMP-I.

The ESMF approach and the safeguards requirements set forth within it remain relevant in the context of NCRMP-II as well. In terms of the safeguard instrument/s for the proposed project, the Environmental and Social Management Framework will be updated by the Borrower to include baseline and other assessments from the four new states in accordance with the Bank's O.P. 4.01, and will be submitted to the Bank for review and clearance prior to appraisal.

The updated/revised framework will include: (i) overall outcomes that the ESMF would aim/seek, including minimization of social and environmental risks; (ii) the baseline data/information of the four new states; (iii) the process of applying screening and assessment requirements to the various categories of sub-projects; (iv) regulatory/legal requirements; (v) generic mitigation/management plans for the interventions proposed under the project; and (vi) findings from consultations with stakeholders and; (vii) capacity building strategy/plan for the NDMA, state governments, other Government departments/organizations, NGOs and other concerned stakeholders.

Capacity Building Requirements: Experience from NCRMP-I has re-emphasized the need for adequate training and capacity building arrangements on environment and social management at various levels covering all levels of concerned organizations/agencies (PIU, implementing agencies, consultants and contractors). Since the borrower capacity at the Central Level (NDMA) with regard to environment and social management is still in the process of being strengthened, adequate implementation and support mechanisms would be required for the project. The capacities also vary from state to state – for example - West Bengal may require more support compared to other states. The proposed project would require regular/periodic training programmes on the safeguard aspects to ensure that the comprehensive safeguard instruments developed for the project are effectively and uniformly used in the field. Specific capacity strengthening support will be necessary, as assessed during the updating of the ESMF.

F. Environmental and Social Safeguards Specialists on the Team

Venkata Rao Bayana (SASDS)

Neha Pravash Kumar Mishra (SASDI)

Khabilongtshup Khumujam (SASDI)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	Creation of cyclone risk mitigation infrastructure (Component B) such as improvement of roads, bridges, repair/up-grade of coastal embankments and creation of cyclone shelters may have some potential adverse environmental and social impacts. Planning and construction of these investments would require

		avoidance/mitigation measures to ensure that adverse environmental impacts are minimized and properly managed. Impacts resulting from poor sub-project location and/or design; work site safety management, including occupational health and safety of construction workers; drainage; impact on local flora and fauna and; construction materials management, including source handling and transportation would require attention. More precise information about nature, scale and magnitude of environmental impacts from such activities/ interventions will emerge once the environment and social screening exercises are completed. OP 4.01 has been triggered to ensure that all infrastructure investments are planned and designed to be environmentally sound by integrating appropriate principles and approaches into the overall decision making process.
Natural Habitats OP/BP 4.04	Yes	While the proposed project interventions are not likely to cause significant conversion or damage to natural habitats, OP 4.04 is being triggered as some of the sub-projects are likely to fall within/very close a critical natural habitat (owing to the fact that the coast line is dotted with several ecologically sensitive areas) as defined under Bank's policy. Management measures, particularly diligence in appropriate site selection would also be required for avoiding/minimizing disturbances, particularly during the construction stage.
Forests OP/BP 4.36	TBD	To ensure that the health and quality of the forest is not adversely impacted by the proposed works, measures may be needed during the planning/design and implementation stages of the project. However, at this stage, the nature and quantum of impacts, if any is not known and therefore this information will be updated in the Appraisal stage ISDS.
Pest Management OP 4.09	No	OP 4.09 is not being triggered for this project as biological/environmental control methods or reliance on synthetic chemical pesticides is not envisaged.

Physical Cultural Resources OP/ BP 4.11	Yes	Since some civil works are involved, 'chance finds' at work sites is a likely impact that would have to be managed. Adverse impacts on any locally important cultural property would be examined, if any, for appropriate mitigation during planning and implementation stages.
Indigenous Peoples OP/BP 4.10	TBD	At this stage, the nature and quantum of impacts, if any is not known and therefore this information will be updated in the Appraisal stage ISDS.
Involuntary Resettlement OP/BP 4.12	Yes	Some investments proposed under Component 2 may require additional land than that in possession with the line with concerned departments. Also, the project may displace squatters and encroachers, which may lead to loss of shelter, livelihood or sources of livelihood.
Safety of Dams OP/BP 4.37	No	OP 4.37 is not being triggered for this project as there is no construction of new dams or activities that are concerned with safe functioning of existing dams.
Projects on International Waterways OP/BP 7.50	No	OP 7.50 will not be triggered for this project as there are no interventions planned/proposed over or around an international waterway that could cause a potential conflict. There are also no activities that may affect the use or pollute such a waterway.
Projects in Disputed Areas OP/BP 7.60	No	OP 4.10 will not be triggered for this project.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 25-Jul-2013

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS:

A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared:
July 2013.

B. For simple projects that will not require a QER, the target date for preparing the PAD-stage ISDS:

C. Time frame for launching and completing the safeguard-related studies that may be needed.

The updated/revised ESMF (including baseline information from the four new states, results from

[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

the field observations/assessment, institutional capacity and findings from consultations along with other aspects mentioned under sub-section 'E' of this ISDS) is expected to be ready by the proposed appraisal.

IV. APPROVALS

Task Team Leader:	Name: Saurabh Suresh Dani	
Approved By:		
Regional Safeguards Coordinator:	Name: Francis V. Fragano (RSA)	Date: 26-Feb-2014
Sector Manager:	Name: Bernice K. Van Bronkhorst (SM)	Date: 26-Feb-2014

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