Operations Manual

National Cyclone Risk Mitigation Project – II

National Disaster Management Authority

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Abbreviations and Acronyms

AP	Andhra Pradesh
APL	Adaptable Program Loan
B/C	Benefit Cost
BME	Benefit Monitoring and Evaluation
CBO	Community Based Organization
CDMA	Code Division Multiple Access
CRS	Central Receiving Station
DCO	District Collector's Office
DMA	Disaster Management Authority
DPR	Detailed Project Report
DRM	Disaster Risk Management
DGVCL	Dakshin (South) Gujarat Vij Company Ltd.
EOC	Emergency Operating Centre
ESMF	Environment and Social Management Framework
EWDS	Early Warning Dissemination System
FM	Financial Management
FMM	Financial Management Manual
FY	Financial Year
GFDRR	Global Facility for Disaster Reduction and Recovery
GDP	Gross Domestic Product
GOI	Government of India
GoO	Government of Odisha
GoGo	Government of Goa
GoGu	Government of Gujarat
GoKa	Government of Karnataka
GoKe	Government of Kerala
GoM	Government of Maharashtra
GoWB	Government of West Bengal
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IUFR	Interim Unaudited Financial Reports
IMD	India Meteorological Department
INCOIS	Indian National Centre for Ocean Information Services
IPCC	Intergovernmental Panel on Climate Change
IRC	Indian Road Congress
IST	Implementation Support Team
LD	Line Departments
MHA	Ministry of Home Affairs
MPCS	Multi-Purpose Cyclone Shelter
NCB	National Competitive Bidding
NDMA	National Disaster Management Authority
NIDM	National Institute of Disaster Management
NGO	Non- Government Organization
NPSC	National Project Steering Committee
O&M	Operation and Management
PFS	Project Financial Statements
PGVCL	Paschim (West) Gujarat Vij Company Ltd
PIU	Project Implementation Unit
PMC	Project Management Consultants
PMU	Project Management Unit
PWD	Public Works Department
RAP	Resettlement Action Plan
R&DMD	Department of Revenue and Disaster Management
SBD	Standard Bidding Document
SDMA	State Disaster Management Authority
SPIU	State Project Implementation Unit
SPMU	State Project Management Unit
SPSC	State Project Steering Committee
SRRD	State Relief and Rehabilitation Department
ST TPQA	Scheduled Tribe Third Party Quality Auditor
UNDP	United Nations Development Program
UT	Union Territory
VHF	Very High Frequency
WBDDM	West Bengal Department of Disaster Management
WRD	Water Resource Department

Chapter 1: Introduction

1.1 Purpose of the manual

1. The Primary purpose of this manual is to define guidelines, policies and procedures for effectively implementing the World Bank funded National Cyclone Risk Mitigation Project (NCRMP) Phase-II. These procedures make due reference to the World Bank guidelines as applicable to the Project. The manual will serve as a ready reference to implement any task identified for investment under NCRMP, at the national as well as at the state level.

1.2 Target Group for the Operations Manual

2. The manual is intended to be used by the participating States/ Agencies involved in decision making and implementation of one or more of the project components of NCRMP Phase-II (see Section 2.1). These will include:

- Project Management Unit (PMU) – At the national level at NDMA to overseeing the implementation of the project.
- Project implementation Units (PIU) – Implementation units constituted at the State level.
- Participating Line departments – Departments as identified by the PIU for implementation of various components/Sub –components of the project.
- Implementation Support Consultants – as identified by PMU, PIU and Line Departments for desired support.

1.3 Scope of the Operations Manual

3. This OM is consistent with, and has to be read and applied in conjunction with the agreed with the following documents:

- Project Appraisal Document (PAD) for NCRMP,
- Legal Agreements between the Government and the Bank,
- International Development Association (IDA) Financial Agreement,
- Environmental and Social Management Framework (ESMF),
- Relevant decisions of the Government and the Project Steering Committee (National and State Level), and
- Other relevant Government Orders (GOs) and Bank.

4. It shall be considered a ‘living document’ with room for later revisions, improvements and additions, with the mutual consent of the Government and the Bank. All such revisions shall be notified in writing to all concerned stakeholders within a period of 15 days of the respective revisions.

Chapter 2: Project Context and Components

2.1 Project Context

1. 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[1] 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.

2. The Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with a view to address cyclone risks in the country. The overall objective of the Project is to undertake suitable structural and non structural measures to mitigate the effects of cyclones and other hydro meteorological hazards in the coastal States/UTs of India.

3. The Project has identified 13 cyclone prone States and Union Territories (UTs) with varying levels of vulnerability. These States/UTs have further been classified into two categories, based on the frequency of occurrence of cyclones, size of population and the existing institutional mechanism for disaster management. These categories are:

***Category I*: Higher vulnerability States** i.e. Andhra Pradesh, Gujarat, Orissa, Tamil Nadu and West Bengal.
***Category II*: Lower vulnerability states** i.e. Maharashtra, Goa, Karnataka, Kerala, Daman & Diu, Puducherry, Lakshadweep and Andaman & Nicobar Islands.

4. The NCRMP is structured in phases, based on the risk levels of the states and their implementation readiness. Phase I, under implementation since 2010, includes the states of Odisha and Andhra Pradesh, and in Phase II the states of Goa, Gujarat, Karnataka, Kerala, Maharashtra, and West Bengal are being included. Following is a short vulnerability profile description of the states:

2.2 NCRMP –II Focus states

5. In NCRMP Phase II the states of Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal are being included. Following is a short vulnerability profile description of the states:

6. **Goa**. The state has a total area of 3,702 km^2, divided in two administrative districts, and a total population of 1,457,000 as per 2011 census. Goa has a coastline of 105km with seven of its twelve *talukas* having a proximity to the sea. Goa has also a floating population of about 1,500,000 as the state is a popular international tourist destination. Though Goa has experienced only two cyclones in the last 75 years, its risk level is driven by high levels of exposure with concentration of population (around 60%) and assets (particularly tourism infrastructure) along

[1] Maplecroft's Climate Change Risk Atlas, 2011. Available at http://maplecroft.com/about/news/ccvi.html.

the coastline. Out of the geographical area about 40% is susceptible to winds and cyclones, falling under moderate or low risk zone. Goa also has about 18,000 ha of Khazan lands, which are below the mean sea level, and are protected by 420 km of bunds.

7. **Gujarat.** The State has the largest share (1,600 km, 23%) of the total Indian coastline. Two cyclone seasons are experienced in Gujarat: May to June (advancing southwestern monsoon) and September to November (retreating monsoon). The state has a large number of key ports and coastal settlements, and it serves as gateway for importing petroleum, gas and other bulk goods to North India. About 90,000 houses, spread over 1,300 settlements, are vulnerable to severe damages.

8. **Karnataka.** The state has a total area of 191,791 km^2, and it's the 7th largest state in India by area, and positioned 8th by population. The total coast length is 320km, along which there is one major port, the New Mangalore Port Trust, and more than 10 medium and small ones. The three coastal districts (Uttar Kannada, Udupi, and Dakshina Kannada) have a total population of about 5 million of which about 2.8 million (40 % live below poverty line) people are highly vulnerable as they live 5km from the coastline. The state falls under moderate and low risk zones for cyclones, however it has experienced floods related to low pressure systems and cyclonic circulation over the Bay of Bengal and Arabian Sea. The last major hydro-meteorological event, in 2009, affected more than 4,000 houses causing major damage.

9. **Kerala.** The state has a geographical area of 38,863 km^2. It lies between the Arabian Sea on the west and the Western Ghats on the east. Kerala's coast runs 580km in length, while the state itself varies between 35km –120km in width. Kerala receives an average annual rainfall of 3,100mm 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 it prone to severe landslides, flooding and coastal erosion. The density of coastal urban population is 4,228 persons per km^2, nearly twice the average urban density in the state. Continuous occurrence of high intensity rainfall for a few days is the primary factor contributing to extreme floods in the State. Between the year 1891 to 2007, 31 Cyclonic Storms/Severe Cyclonic Storms have affected the Kerala coast. 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.

10. **Maharashtra.** Located in the north of India along the west coast, the state's coastline is 720 kms in length along the Arabian sea. It is the second largest in terms of population (114.2 million). The state is prone to a host of hazards, being 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 with wind speeds rarely exceed 155km/h. Heavy urbanization has also increased vulnerability to hazards, in particular urban flooding.

11. **West Bengal (WB).** The coastal stretch of WB (350 km coastline) 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 storm surge generated by the wind pressure submerges the coastal belt. Another peculiar characteristic of this coast are the high number of rivers and rivulets crisscrossing islands that have elevations of 4 to 5m above sea level. This makes these islands and the populations inhabiting them highly vulnerable. The state has a population of more than 90 million and it is amongst the highest density states in the country. WB has suffered from cyclones, floods, droughts and earthquakes. On May 25th 2009, a severe cyclone, "AILA" lashed the WB coast causing destruction not only in the coastal blocks but also far inland.

2.3 Project Development Objective

12. The Project Development Objective (PDO) 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.

2.4 Project Beneficiaries

13. The primary beneficiaries will be coastal communities, including the aged, differently – abled, women and children, in the target states benefitting from cyclone risk mitigation infrastructure and early warning systems. Site selection for investments is based on population density and availability of alternatives for evacuation and shelter, thus benefitting poorer communities with higher stocks of *kutcha*[2] housing.

2.5 Project Components

14. The project has the following four components:

A. **Early Warning Dissemination Systems (EWDS)** - 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 States of Andhra Pradesh and Odisha with technical assistance/support of M/s TCIL are implementing EWDS as part of NCRMP-I, which includes the necessary equipment and training. This component will support the expansion of EWDS to Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal. It will assist in the installation and operating EWDS allowing the state and/or district/sub district level control center to send communications directly to the villages using Global System for Mobile Communications (GSM) based technology including strengthening emergency operation centers to channel the warning through different communication channels. The component also includes providing satellite phones/alternative technology to key officials to fail proof the EWDS and also expand a new radio based wireless communication technology in coastal areas in each state; and strengthening the capacity of officials and village representative in operating, maintaining and using these EWDS equipment in disaster preparedness and response by preparing disaster management plans and organizing mock drills and similar exercises.

[2] Semi-permanent houses of wattle and daub construction with thatched roofs or asbestos sheets.

B. **Cyclone Risk Mitigation Infrastructure** - 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 in the six focus states - Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal.

C. **Technical Assistance for Multi-Hazard Risk Management**- This component will improve the quality of available information on multi-hazard risks for decision making, and strengthen multi-hazard risk management at a national level. This component will have the following subcomponents:

- *C.1:Multi-hazard risk modeling and assessment* – This subcomponent will help understand risk and vulnerabilities better, and prepare the key institutions for addressing them effectively across all coastal states and UTs. The understanding of risk and vulnerabilities from NCRMP I will be carried forward in NCRMP II through improved probabilistic risk modeling allowing for modeling of multi-hazard and cascading impacts of disasters along coastal India.

- *C.2: Strengthening Emergency Recovery Capacity* – This subcomponent will support the implementation of the key findings from the Capacity Building study (at national, state and local level) undertaken by NIDM in NCRMP I focused on risk and damage assessment. The findings will feed into developing training modules that will focus on strengthening capacity of the State's disaster responders.

- *C.3: Enhancing the Capacity for Disaster Risk Management and response in non-coastal states* – This subcomponent will entail the following:

  a) Multi-hazard risk assessment– This will support a systematic assessment of the current and future disasters and climate risks, focusing on urban areas in non-coastal states. A web-based GIS platform will be established to store and manage the data gathered. Modeling will also be undertaken on a pilot basis for high risk flood areas and potentially landslide risk areas to factor in cascading multi-hazard disaster impacts;
  b) Pilot physical structural assessment– entailing a pilot initiative to train engineers on the assessment of the physical vulnerability of identified public buildings and critical infrastructure to seismic and other hazardous events. This will entail the development of identifying vulnerable critical infrastructure, a comprehensive multi-hazard check-list and accepted assessment guidelines; and
  c) Strengthening capacity for disaster response – This will support strengthening the capacity of emergency responders (local governments, first responders and other agencies involved in disaster response) in selected urban areas that are considered highly vulnerable to the impacts of earthquakes or landslides. It will

include: (i) operating, maintaining and regular use of the EWDS equipment by officials and village representatives, including equally qualified women and men from socially marginalized groups; and (ii) of communities, represented by women and men from all social groups in disaster preparedness and response through disaster management plans, arranging mock drills etc. It will also facilitate upgrading search and rescue equipment's coupled with proper training in the use and deployment of these tools.

- *C.4: Hydro-meteorological Resilience Action plans* – This subcomponent will support states in preparing resilience action plans that will focus on extreme weather events; develop resilience solutions/recommendations for sectors impacted by disasters such as agriculture, livelihoods, energy, infrastructure etc.; and focus on urban hot-spot areas in helping develop urban resilience plans; and feasibility studies that would review options to improve the management and financial protection against multi-hazards. It will assist in estimating annual expected losses caused by adverse natural events, and the probable maximum loss which will enable the development of comprehensive Multi-Hazard Risk Financing strategies.

- *C.5: Design of a National Seismic Risk Mitigation Program* – This subcomponent would assist the MHA and the NDMA in the design of a comprehensive National Seismic Risk Mitigation Program. This will encompass activities that will strengthen risk assessment capabilities, raising public awareness, strengthening of building codes and land-use regulations, piloting retrofitting of critical infrastructure, and developing risk financing framework.

D. **Project Management and Implementation Support** - This component will support the incremental operating costs of the Project Management Unit (PMU) and the State PIUs. In addition, the component will include consultancies required for the preparation and supervision of specific activities, trainings, exposure visits and knowledge exchange programs.

2.6 Project Period

15. The Project is the second in a series of Projects, which started with an ongoing Adaptable Program Loan. The implementation period is five years.

2.7 Project Components and Financing

16. The Project is proposed as a Centrally Sponsored Scheme (CSS) with 75% contribution (for Component B of the Project) by the Central Government, as grant-in-aid and a matching 25% contribution by the State Governments. Other components will be funded 100% by the Ministry of Home Affairs, Government of India, as grant-in-aid.

Table 1: Finances per Project Component

Project Components	**Total Cost (US$ M)**	**IDA financing (US$M)**	**Financing**
Component A: Early Warning Dissemination Systems	**18.1**	**18.1**	
Goa	3.1	3.1	
Gujarat	3.3	3.3	100%
Karnataka	1.5	1.5	
Kerala	2.5	2.5	
Maharashtra	4.4	4.4	
West Bengal	3.3	3.3	
Component B: Cyclone Risk Mitigation Infrastructure	**314.8**	**236.2**	
Subcomponent B.1: Goa	18.2	13.7	
Subcomponent B.2: Gujarat	93.4	70.0	
Subcomponent B.3: Karnataka	18.6	14.0	75%
Subcomponent B.4: Kerala	22.3	16.7	
Subcomponent B.5: Maharashtra	55.6	41.8	
Subcomponent B.6: West Bengal	106.7	80.0	
Component C: Technical Assistance for Multi-Hazard Risk Management	**29.5**	**29.5**	
Subcomponent C.1: Multi-hazard risk modeling and assessment	8.0	8.0	
Subcomponent C.2: Strengthening Emergency Recovery Capacity	2.0	2.0	
Subcomponent C.3: Enhancing the Capacity of Disaster Risk Management and Response in Non-Coastal States	14.5	14.5	
Subcomponent C.4: Hydro-meteorological Resilience Action Plans	3.0	3.0	100%
Subcomponent C.5: Design of a National Seismic Risk Mitigation Program	2.0	2.0	
Component D: Project Management and Implementation Support	**24.6**	**24.6**	
NDMA	5.4	5.4	
Goa	1.6	1.6	
Gujarat	4.6	4.6	
Karnataka	1.0	1.0	
Kerala	1.3	1.3	
Maharashtra	5.3	5.3	
West Bengal	5.4	5.4	
Total	***387.0***	***308.4***	

Chapter 3: Project Implementation Arrangement

1. The project proposes to replicate the existing institutional arrangements under NCRMP I both at the central and state levels. The NDMA[3], on behalf of MHA[4], will manage the project and will have overall responsibility for implementation. A Project Management Unit (PMU) headed by Project Director has been established at NDMA. It will act as nodal authority for overseeing implementation, monitoring and evaluation of Project.

3.1 Two tier Project Management structure

2. Since the project will be implemented in multiple states, national level and state level coordination, monitoring and supervision assume significance. Therefore, at the central level, this role will be played by NDMA, based at New Delhi and by the nodal agencies in the respective states viz. : Gujarat State Disaster Management Authority (GSDMA) in Gujarat, Maharashtra Department of Relief and Rehabilitation (MDRR) in Maharashtra, Department of Revenue and Disaster Management (R&DMD) in Kerala, West Bengal Department of Disaster Management (WBDDM) in West Bengal, Karnataka Department of Revenue and Disaster Management in Karnataka, and Water Resources Department in Goa. The key implementing and monitoring agencies are therefore represented by the PMU at central level and SPIUs at the state level.

3.2 Project Steering Committee

3. Both PMU and SPIUs will have a Project Steering Committee (PSC) for the overall guidance and monitoring of the project. They will be headed by the Secretary of NDMA at the National Level and the respective Chief Secretaries at the State level. The State Project steering Committees (SPSCs) formally approve the project investments and take an active role in speeding up the implementation arrangements. At the implementation stage, the National Project Steering Committee (NPSC), formed for NCRMP I, will provide strategic oversight over the operations of NCRMP II. This shall be done through annual/semi-annual review meetings, where the NSC shall:

- Review and approve the annual/revised budgets
- Review progress against the defined milestones
- Review critical findings of the audit and evaluation reports
- Provide such guidance, as it may deem necessary for the Project

4. Similarly, at the state level, the SPSC will give strategic oversight to the project during the implementation stage. The key functions will include the following:

- Prepare and submit annual work plans, procurement plans and financial disbursement projections;
- Overall project management and supervision of implementation;

[3] The National Disaster Management Authority (NDMA) is the apex body at National level with a mandate to lay down the policies, plans and guidelines for disaster management to ensure timely and effective response to disasters.
[4] the Ministry of Home Affairs (MHA), at the national level, is the nodal ministry where all the disaster management activities are anchored.

- Review critical findings reported in the semi-annual and annual project progress reports, audit and evaluation reports
- Supervise, guide and approve proposals of various Line Departments;
- Reviewing project implementation progress and giving guidance for achieving project goals and targets

5. In order to use the special skills required for implementation of component C with regards to training, NIDM will support as an Implementing Agency for Subcomponent C.2., building on the ongoing DRM capacity building role on the NCRMP I.

6. An overall project management structure is given in the following Figure 1.

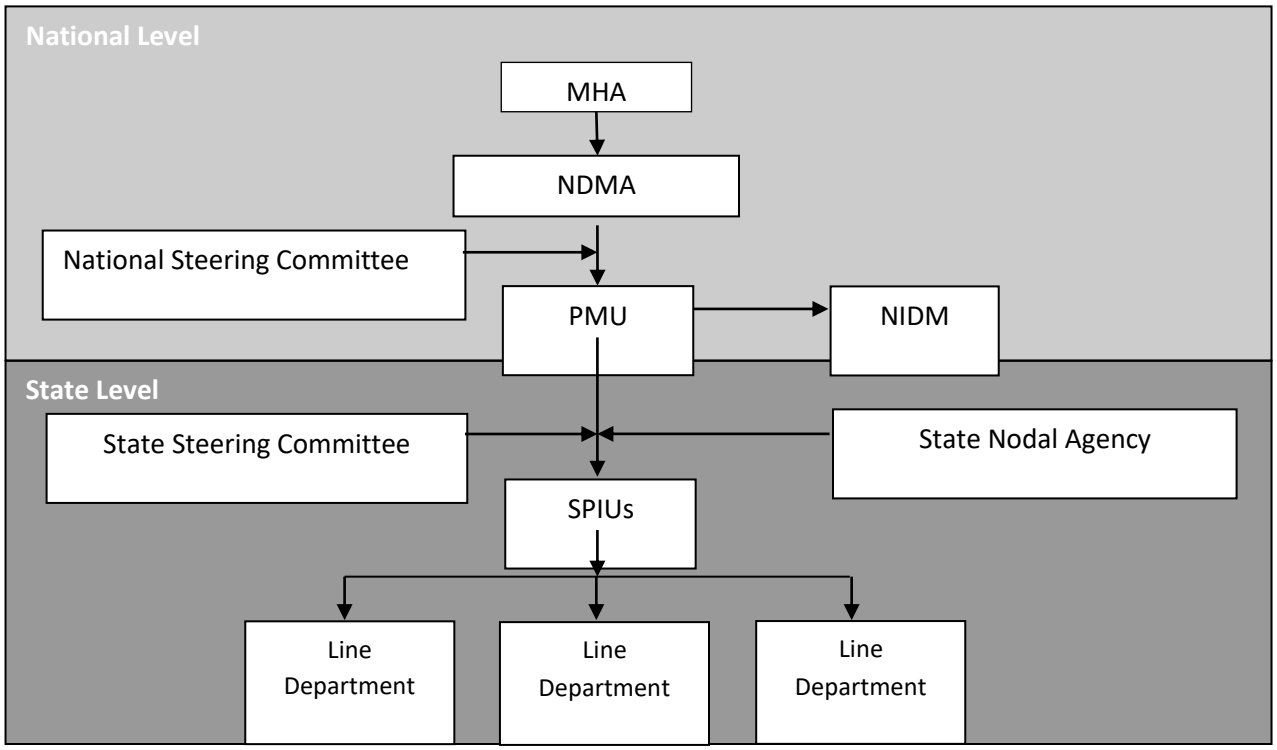


Figure 1: NCRMP –II Management Structure

3.3 National Level Project Management and Implementation

7. At national level a PMU has been in operation within NDMA since 2010 for the NCRMP I, and the same will expand its functions for NCRMP II. The PMU is responsible for overall coordination, monitoring and reporting and is headed by a Project Director, supported by specialists. The principal tasks defined for PMU include:

Planning:

- Overseeing and monitoring the preparation of the planning documents for the NCRMP, controlling their quality and ensuring their justification. These include investment proposals, DPRs, implementation plans, etc.
- Preparing the framework for project implementation including documentation requirements, operationalizing the same and training the stakeholders.

Project implementation:

- For Components C - define requirements, derive specifications for equipment, prepare guidelines for operation and maintenance and required protocols, interact with state nodal agencies, partner agencies and carry out centralized procurement. Also implement, with support from NIDM, part of component C by instituting the studies and coordination with state agencies and departments.
- Coordination with various other implementation units.
- Monitoring the physical and financial progress of the project including reporting.
- Provide periodic, collated project progress reports to the Bank.
- Ensuring that mechanisms exist to provide assurance on operations in line with the requirements set forth in the various manuals (ESMF, procurement and Operations Manual).
- Facilitate communication and knowledge exchange between SPIUs.

Financial management:

- Preparation of the consolidated NCRMP budget and revisions thereof.
- Manage the overall fund flow, coordinate the sanction of funds to the states and partner agencies.
- Manage audits, disclosure of Annual Financial Statements

Procurement management

- Prepare procurement plan and ensure timely execution of all works.
- For some activities under components C, the PMU will
    - Define packages and prepare bid documents were applicable, procurement plans and Notice Inviting Tender (NIT).
    - Invite tenders, undertake technical evaluations and select consultants.
- Provide guidance to State and PIUs on procurement matters
- Approve Procurement plans of the states;
- Consolidate and submit annual procurement plans for each year and revision if any thereof , to the Bank for concurrence.

Environment and Social Management:

- Ensure that the provisions of the ESMF are complied with in project preparation and implementation through reviews, supervision, monitoring, reporting and training support.

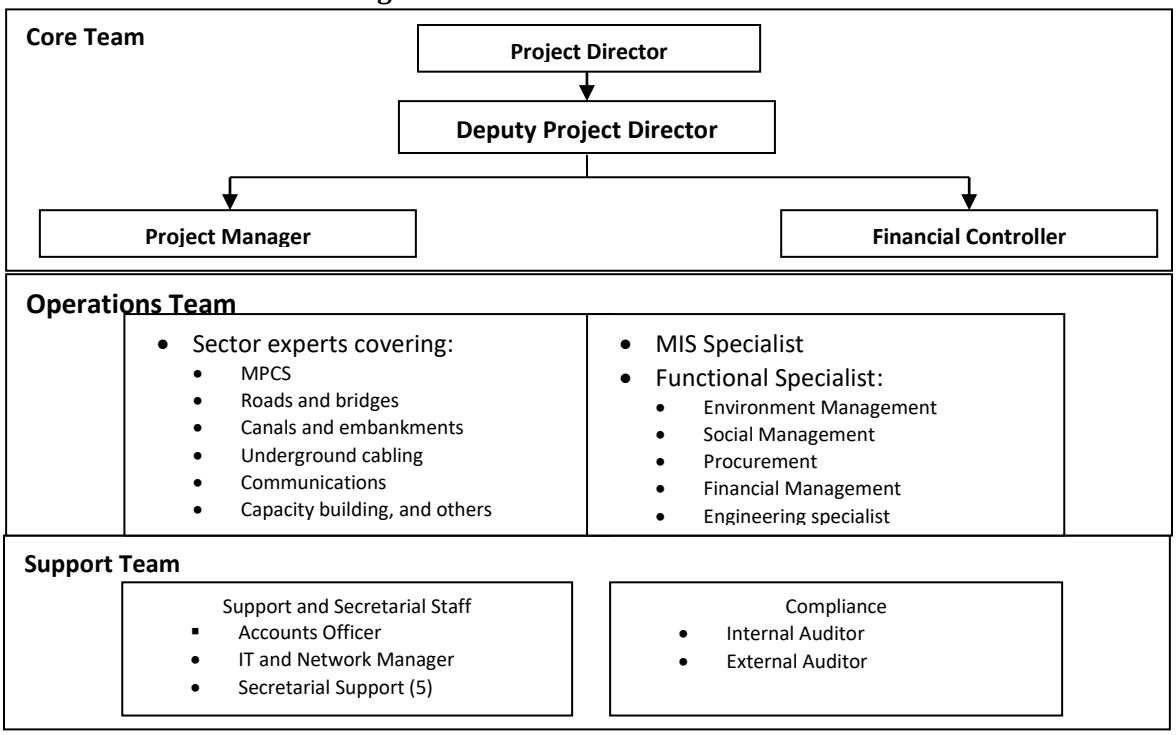
Overall monitoring and reporting:

- Have oversight on project progress, monitor overall progress and outcomes.
- Establish and operationalize the web based MIS and ensure the same is regularly updated by SPIUs and implementing agencies and data relating project physical and financial progress is transmitted to PMU through this system.
- Train user staff to manage the public viewing portal.
- Proactively review and address problem areas,
- Prepare consolidated reports and update NPSC/NDMA/GoI and the Bank.

Coordination, communication and interacting with other associated agencies/organizations such as CAAA, DEA, MHA etc.

8. The structure of PMU at NDMA is depicted in the following Figure 2[5].

Figure 2 – Structure of PMU and NDMA



9. **Staffing and responsibilities for the PMU are:** The PMU comprises two separate groups – a core team and a support team consisting of sector and functional specialists. The composition and roles of these teams are as follows:

Table 2: PMU proposed staff and responsibilities

S. No	Position	Responsibility
1.	Project Director (PD)	• overall responsibility for effective implementation of the project with adequate and appropriate oversight • providing formal feedback and liaising with the NPSC, World Bank, NDMA, MHA, DEA, the States and other stakeholders etc. in relation to the Project; • reviewing the overall physical and financial progress of the project; • requesting for sanction of funds to the States and implementing agencies; • ensuring overall compliance of the project implementation with the agreed project objectives; • ensuring that all implementing agencies including PMU are adequately and rightly staffed and strengthened to deliver their roles; • ensuring that PMU or its representatives will undertake field visits as required and provide necessary guidance and support to the

[5] The Sector Specialists can be full-time staff, deputed, short-time consultants, or part of a specialized firm contracted with this purpose, depending on the need and project cycle, in agreement with the Bank.

		states/NIDM in a timely and effective manner; • assessing the risks/factors affecting implementation and proposing mitigation actions and ensuring their timely implementation; The Project Director reports to Project Steering Committee/Secretary, NDMA
2.	Deputy Project Director	• reviewing documentation prior to submission to the Project for approval; • reviewing the project progress, coordinating with the States and other agencies and taking corrective action; • interacting and guiding the core team and support teams of PMU; • timely selection and appointment of consultants and contractors at the national level and ensuring quality and timely outputs from these agencies; • appointment of the internal auditors for audit at the national level, preparation of the annual Internal Audit plan, coordination of the internal audit efforts and review of the results of the internal audit; and overseeing that such internal audits also happen and outputs are delivered in time at the state levels; • ensuring that appropriate mechanisms have been established and followed for compliance with the operating rules and procedures for the NCRMP; • ensure that the project's disclosure requirements and Governance and Accountability Action Plan are complied with by the PMU.
3.	Project Accountant and Administrative Officer	• overseeing the preparation of the consolidated NCRMP budget and any revisions thereto; • selection and appointment of the external auditor (for the PMU) overseeing the External audits happen at the states in a timely manner; and overseeing the timely submission of external audit reports for the NCRMP; • Handling and resolving project audit issues. • Any other financial management related matter • Reviewing the progress and results of internal and external audit
4.	Project Manager	providing functional support for the project especially in implementation of Components A, B and C.
5.	Section Officer and Assistant	to assist the Project Accountant and Administrative Officer in their day to day functions.
6.	Finance Specialist	• responsible for financial management and reporting for the NCRMP. His role involves: • reviewing and approving the financial progress reports; • preparing sanction orders for release of funds for approval by the PD • Preparation consolidation and scrutiny of the IFR's, • Compilation and preparation of Utilization Certificates, etc;
7	Environment Specialist	• Assist PMU on all matters related to environment management in the project • Review of ESMF compliance and other related reports submitted by the PIUs and or consultants. • Review and provide oversight on the implementation of sub project specific environment management plans (EMPs) prepared for the sub –projects • Regularly monitor and liaise with the PIUs and other implementing agencies and provide the necessary advice on environmental matters.

8	Social Management Specialist	• Responsible for overseeing and coordinating the implementation of social development activities such as land acquisition, resettlement, NGO coordination and other relevant activities. • Responsible for ensuring compliance with ESMF with respect to preparation and implementation of plan related to social impacts • Manage the Social Assessment studies including the benefit monitoring and evaluation and coordinate preparation of relevant action plans • Coordinate with PIU's of states for overseeing the implementation and monitoring of land acquisition and involuntary resettlement mitigation actions and other social development activities • Provide advice on project design and institutional aspects for the project implementing states
9	Procurement specialist	Responsible for ensuring that all the procurements done under the project are as per the procedures of the World Bank and that adequate systems have been established at the PMU and the PIU.
10	Communications Expert	• In addition to the above, coordinate with various stakeholder agencies as per the design of Component A to ensure that respective inputs are delivered in a timely manner. • Oversee integration of Component A activities with regular State Disaster Management systems and other state agencies (e.g. police) and NDMA's National Disaster Management Communication Network and other initiatives.
11	Engineering Specialist	• Oversee the overall design, preparation and implementation and outcomes of various activities contribute to cyclone risk mitigation; • Monitor quality of preparation of ToRs for Component B activities, and any further follow-up activities that may arise; Procurement of consultants of right skills; Quality of work of consultants; Quality of training and orientation of community on disaster management aspects in general.
12	MIS specialist	• Oversee delivery of responsibilities of IT Specialists for effective deployment and functioning of the MIS. • Coordinate with all the agencies for timely input of data into the MIS, generating the necessary progress and information tracking reports, as may be required • Synthesize the information and derive trends/critical areas of concern and highlight to the Management. • Based on experiences of using the MIS, suggest strategies for improving the system as approved by the PMU.
12	IT and network manager	Responsible for maintenance and upkeep of IT and communications infrastructure at the PMU.

3.4 State Level Project Management and Implementation

10. Focus states will set up an SPIU. SPIUs[6] will be vested in disaster management agencies in states where these have been setup and in other nodal departments in other states. PIUs will have reporting responsibility to the head of the nodal department and would be responsible for overall project management and implementation within the state. Each PIU will be headed by a Project Director and supported by sector experts drawn from each of the line departments

[6] Gujarat State Disaster Management Authority (GSDMA) in Gujarat, Maharashtra Department of Relief and Rehabilitation (MDRR) in Maharashtra, Kerala Department of Revenue and Disaster Management (KDR&DM) in Kerala, West Bengal Department of Disaster Management (WBDDM) in West Bengal, Karnataka Department of Revenue and Disaster Management in Karnataka, and Water Resources Department in Goa.

implementing the project investments, functional specialists to coordinate fiduciary and safeguard issues and other support staff.

11. **Principal tasks defined for PIU include**:

Planning:

- Preparation of the investment proposals, DPRs, bidding documents and implementation plans etc.

Project implementation:

- Coordinate with the line departments for implementation of Components A and B
- Coordination and reporting to the PMU on progress of project implementation;
- Construction monitoring and supervision through regular site visits;
- Ensure application of Environment and Social Safeguards as detailed in the ESMF;
- Monitoring the physical and financial progress on the project and seeking corrective action, where applicable;
- Establish grievance redressal system for the project and disseminate the grievance redressal processes widely to allow communication of grievances;
- Implement directions given the State level Steering Committee for the Project, from time to time;
- Coordination and collaboration with other departments/ administrative machinery to ensure timely implementation of the project activities;
- Monitoring Procurement and award of packages and purchase orders for the State where applicable.

Financial management:

- Preparation of the NCRMP budget and revisions thereto
- Coordinating the sanction of funds to the implementing agencies
- Maintenance of books of accounts and records for the project
- Preparation of financial disclosures for submission to the PMU
- Conduct of the internal audits and manage external audits

Procurement management:

- Procurement and award of contract packages for procurement of goods, works and consulting services approved for implementation of activities under Component A and B by the respective state;
- Prepare annual procurement plans and revisions if any thereof – to NDMA
- Approve procurements made by respective line departments and or its division units – as approved by the State Level Steering Committee, ad or NDMA;
- Ensure compliance with Project procurement guidelines by the line departments/agencies;
- Procure consultants/PMC services at the State level

Environment and Social Management – ensure that the requirements set forth in the ESMF are complied with during project preparation and implementation. The SPIU shall also prepare and Environment and Social Safeguard compliance report, incorporate the same in the semi-annual

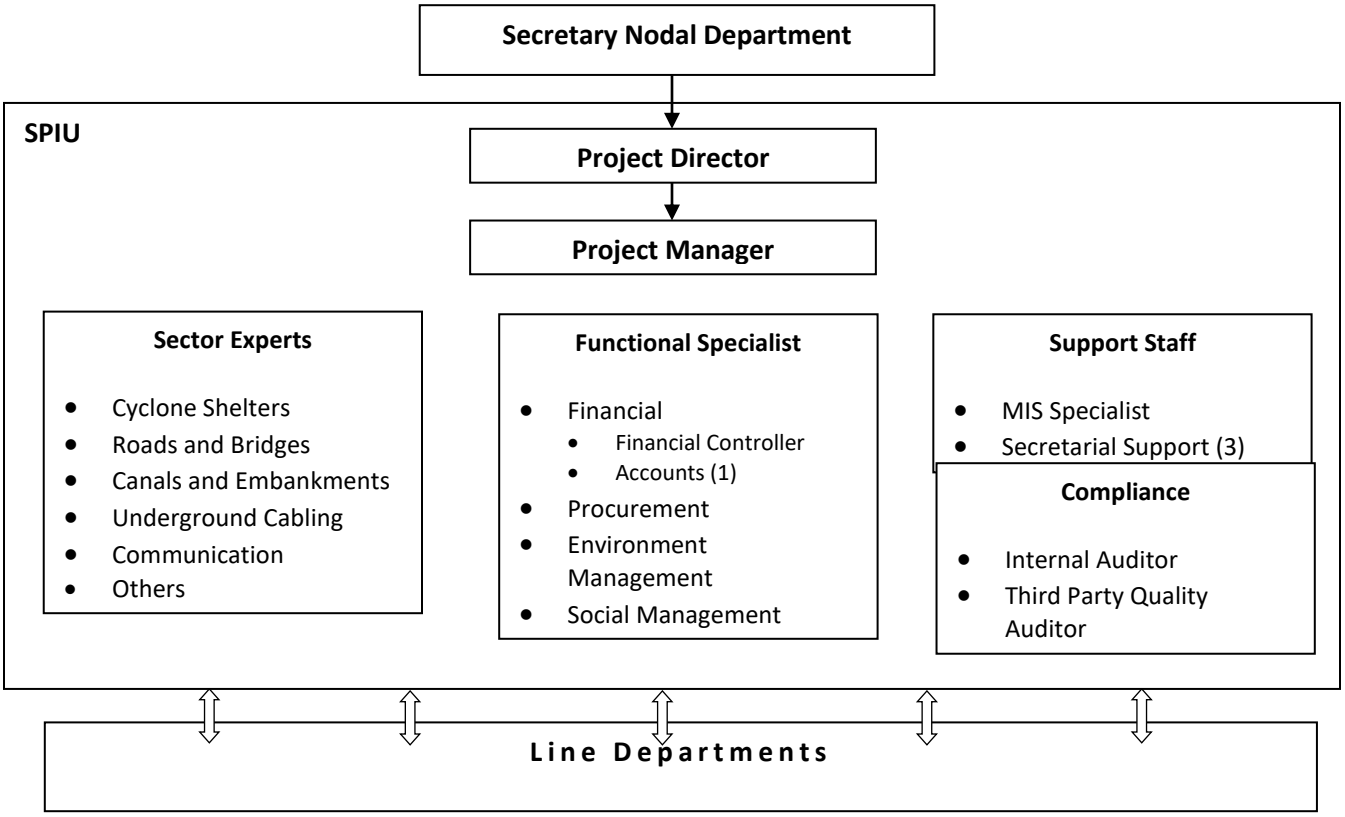
and Annual progress report submitted to NDMA.

Overall monitoring and reporting

- Monitor overall project progress and outcomes.
- Establish and operationalize the web based MIS and ensure regular updation and transmission of physical and financial progress data to PMU through the MIS.
- Prepare consolidated reports and update PMU/respective state governments and the Bank.
- Provide necessary support to visiting missions from central agencies/the Bank
- *Coordination and liaison* with the SSC and other Government departments.

12. Structure of the PIU is given in following Figure – 3.

Figure 3 – Structure of SPIU[7]



[7] The figure presents the sample of core staff, which will then be adapted by each SPIU in line with their respective subcomponent, and reflected in the Operations Manual.

13. **Staffing roles and Responsibilities for SPIU staff**: The composition and roles of these teams are as follows (Please see Annexure 7 for ToRs):

Table 3: SPIU proposed staff and responsibilities

S.No	Positions	Responsibilities
	Project Director and Project Manager	• Providing formal feedback and liaison with the SPSC, World Bank, NDMA and other stakeholders etc. in relation to the Project. • Approve annual budgets for NCRMP budget and revisions thereof; • Review and monitor overall physical and financial progress of the project and take necessary corrective action, as required from time to time; • Ensure timely reporting to relevant authorities – as required; • Requesting for sanction of funds to the State and implementing agencies.
	The Finance Controller	Responsible for financial management, oversight and reporting for the NCRMP, oversight and reporting for the NCRMP. • Compliance with finance management procedures of the NCRMP. • Overseeing the preparation of the NCRMP budget and any revisions thereto • Reviewing and approving the financial progress report. • Preparing sanction orders requesting for release of funds along with the required supports • Authorizing the processing of invoices for 3rd parties. • Maintenance of the books of accounts. • Appointment of internal auditor for NCRMP. • Ensure submission of external audit reports for the NCRMP. • Submission of Utilization certificates and expenditure statements to NDMA and to Project Director at agreed intervals; • Ensure intern audit for the project accounts ae carried out in time and the same is submitted to NDMA.
	Environment and Social management experts	Responsible for ensuring that mechanisms for compliance with the ESMF guidelines have been established and followed at the PIU and Line departments. Their roles and responsibilities are described in details in Section 7.3
	Procurement specialist (and his team[8])	Responsible for complying with procurement procedures set forth for procurement by the PMU (for details refer Chapter 6) and book on World Bank procurement procedure.
	One Sector specialist for each applicable sector (cyclone shelters, embankments, roads , underground electric cabling and forestry and other sectors).	• Acting as the single point of contact with the respective Line Departments. • Providing technical guidance and coordination to the Line Departments in the preparation of the DPRs. • Monitor efficient procurement and implementation planning by the nodal departments for respective sectors. • Performing a review of the technical documents submitted by the Line Department and ensuring their quality for technical accuracy and compliance with the DPR and bid formats. • Review progress of procurement for respective department, analyze the sector issues that may be contributing delays, identify and guide the line departments on appropriate remedial measures. • Ensure that line departments comply with recommendations

[8] **Note**: All procurement related procedures shall be initiated and completed by the Line departments. The Procurement Specialist shall review every bid document and contract before it is finalized to ensure that all procurement guidelines have been adhered to. The details of the role and responsibilities of the procurement specialist are given in Section 5.2

		emerging out of third party quality audits relating to their sector. • During implementation, oversee contractors; performance, assess quality control by the line departments, provide technical guidance. • Monitor for appropriate community intermediation/involvement by the line departments as required, particularly to make them understand sustainable operation of assets and usage and functionality during disaster times. • Obtain monthly progress reporting from the Line Department, check for its accuracy and assess the critical issues for follow-up. • Reviewing physical progress of work for their respective areas and provide necessary feedback for corrective action. • Undertake periodic site visits to review the progress of work. The time and frequency of visits will be decided in discussions with the **Deputy Project Director**. • Once the works are completed, oversee smooth transition to integrate with the line departments regular O&M and upkeep;
	Communications Specialist	• Coordination of implementation of Component A and B activities in respective states. • Ensuring that NGO/resource personnel are hired and oriented timely for promoting community awareness and involvement to adopt operate and maintain the equipment provided under Component A, and respond to the warning messages on the Last Mile. • Monitor integration of Component A with respective disaster warning systems existing in the State. • Monitor deployment of Project Command and Control unit at the State's Nodal Unit and selected district level units. • Ensure orientation and training of all the agencies involved in Component A for effective utilization of the interventions.
	MIS Specialist	Responsible for generating the necessary progress and information tracking reports, as may be required. He/She will also coordinate with the line departments for timely input of data into the MIS system.
	IT administrator	Maintenance and upkeep of IT and communications infrastructure at the PIU
	Support and office assistance	Assist the project team in filing, paperwork and ensuring smooth execution of the project.

3.5 Line Departments in the States

14. The line departments in the states shall be responsible for the execution of works and further maintenance of the infrastructure created. Line departments will appoint nodal officers and will execute the project through the respective field office. Line departments are responsible for:

- Undertaking necessary assessments and preparation of project documents i.e. Investment Proposals, Sector Summaries, DPRs,
- Updating the environment and social screening criteria (as directed by the SPIU);
- Ensure compliance of safeguards as applicable during implementation of project activities;
- Providing technical updates on the DPRs and bid documents to the SPIU. Carrying out bid evaluation and signing the contracts with contractors/suppliers, as applicable;
- Implementation and monitoring, including contract management and recommending

payments to the contracting agencies;
- Providing regular project progress updates to the SPIU through the nodal person,
- Ensuring regular updating of the web based MIS.
- Ensuring compliance with environmental and social requirements set out in the ESMF in the construction phase, and
- Ensuring quality of the outputs and their timely implementation.

3.5 Focus States Implementing Arrangement

Table 4: State Implementation Agencies

No.	States/ Nodal Agency	Proposed Activities	Implementing Agency
Gujarat			
1.	Gujarat State Disaster Management Authority (GSDMA)	Multi-purpose cyclone shelters	Roads & Building Department
		Access roads and bridges	
		Underground Cabling	Dakshin (South) Gujarat Vij Company Ltd. and Paschin (West) Gujarat Vij Company Ltd.
Maharashtra			
2.	State Relief & Rehabilitation Department	Multi-purpose cyclone shelters	Public Works Department
		Underground Cabling	Maharashtra State Electrical Distribution Ltd.
		Saline Embankments and Rehabilitation of Bunds	State's Water Resources Department
Kerala			
3.	Kerala Department of Revenue and Disaster Management Department	Multi-purpose cyclone shelters	District Nirmiti Kendras
		Access roads and bridges	
West Bengal			
4.	West Bengal Department of Disaster Management	Multi-purpose cyclone shelters	Public Works Department
		Underground Cabling	West Bengal Electric Distribution Company
Karnataka			
5.	Revenue Department (RD)	Multi-purpose cyclone shelters	Public Works Department
		Roads and bridges	
		Saline Embankments and Canals	Minor Irrigation Department
Goa			
6.	Water Resource Department	Multi-purpose cyclone shelters	Water Resource Department
		Bunds	
		Roads and bridges	Public Works Department
		Underground cabling	

15. *Goa*. The State PIU will be housed within the Water Resource Department (WRD) of Goa and will be the nodal agency in-charge of implementation in Goa. The construction works of MPCS and Bunds will be executed by WRD, Underground Cabling by Electricity Department of Goa, and Roads and Bridges by Public Works Department (PWD).

16. *Gujarat.* The State PIU will be housed within the Gujarat State Disaster Management Authority and will be the nodal agency in charge of implementation. The MPCS and access roads subcomponents will be implemented by the Roads & Building Department under the overall guidance of GSDMA. Underground cabling will be implemented by DGVCL and PGVCL.

17. *Karnataka*. The State PIU will be housed within the Department of Revenue (Disaster Management) in Karnataka and will be the nodal agency in charge of implementation in the state. The construction of MPCS and roads and Bridges will be executed by PWD through their line agencies while embankments will be executed by Minor Irrigation (MI) Department.

18. *Kerala*. The State PIU will be housed within the Department of Revenue and Disaster Management (R&DMD) and will be the nodal agency in charge of implementation in Kerala. The MPCS, including access roads, and footbridges subcomponents will be implemented by District Nirmiti Kendras.

19. *Maharashtra.* The State PIU will be housed within the State Relief & Rehabilitation Department and will be the nodal agency in charge of implementation in Maharashtra. The Underground Cabling subcomponent will be implemented by Maharashtra State Electricity Distribution Company Ltd, the Multi-purpose Cyclone Shelter (MPCS) subcomponent will be implemented by the Public Works Department, and the Saline Embankments subcomponent by the State's Water Resources Department.

20. *West Bengal*. The State PIU will be housed within the West Bengal Department of Disaster Management and will be the nodal agency in charge of implementation in West Bengal. The shelters subcomponent will be implemented by the Public Works Department, which is headed by the same government official. Underground Cabling subcomponent will be implemented by West Bengal State Electricity Distribution Company Ltd.

3.6 Technical Support Consultancies

21. Additional *Technical Support consultants (TSC)* can be contracted to provide support to the PIUs and the PMU, for carrying out surveys, assessments, Third Party Quality monitoring and risk and vulnerability studies, legal support and finance, as necessary.

3.7 Communication Strategy

22. A communication action plan shall be developed by the PIU in coordination with PMU for this purpose and implemented to support outreach and achievement of PDOs. The Communication Specialist in the PIU and PMU, shall monitor, measure and record the activities implemented in the project area, periodically present the outcome to the PMU/PIU for the evaluation of the impact of the project and make necessary alterations as per the suggestions made by various stakeholders. The Communication Specialist in the PMU will lead Project communication.

3.8 Monitoring

23. The PMU will put in place a monitoring mechanism that includes a geo-referenced tracking system for works on a MIS. The PIUs will be responsible for feeding the required information into the system.

3.9 Grievance Redress Mechanism

24. The PMU and the State PIU will be responsible for addressing the complaints received on the NCRMP. The project monitoring and tracking tool will have provision to track the complaints, escalate to the respective authorities and also track redressal status. A monthly MIS will be generated which sums up the status of all complaints for the past month.

25. In case the system is not in place, records of these complaints will maintained manually and a reference number and acknowledgement will be provided to every complainant. The complaints will be marked to the concerned officials and follow-up will be undertaken to track response status. A complaint not closed within a specified time will be reflected against the name of concerned official in the monthly report. Under the NCRMP, the grievance redress mechanism is defined at two levels; detail are provided in Annexure 5.

3.10 Disclosure

26. The disclosure guidelines to be followed for the project are summarized in the table that follows:

Table 5: Disclosure arrangements for NCRMP

Levels	***Disclosure requirements***

Overall Project	• Overall information about the Project
	• Grievance redressal mechanism
	• Information under Right to Information (RTI) Act
	  o Monthly returns under the RTI
	  o Particulars of organization functions
	  o Powers and duties of officers and employees
	  o Procedure followed in decision making
	  o Documents held by public authority
	  o A statement of organization structure
	  o Statement of Accounts
	  o Director of officers and employees
	  o Officers designated under RTI.
	• The link on officers designated under RTI provides the list of information officers, assistant information officers and appellate authority to whom the complainant can appropriately address the complaints.
	• Third party audit reports and compliances.
	• Quarterly progress reports.

Environment and Social, Procurement	On PIU website • EOIs of consultants and invitation for bids. (will also be made available through World Bank website (UNDB/DG market) as required) • All bid documents. RFPs in read only formats – in tenders section. • Queries put by bidders and any replies – also to be made available to all bidders • The publication of award of contract would be done as per the format provided in section – 2.6 of Bank guidelines for procurement under IBRD loans and IDA credits.
Financial	• Annual Financial Progress report • Audit reports

Chapter 4: Operation Procedures for Project components

1. The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones and other hydro meteorological hazards in the coastal States/UTs of India.

2. The Project has the following four components, namely:

4.1 Component A: Early Warning Dissemination System (EWDS)

3. The overall objective of the component is to reduce the vulnerability of coastal communities including the aged, differently – abled, children, widows and female headed households by addressing the existing gaps of early warning dissemination to the last mile in a timely, reliable and efficient manner.

4. Currently States of Andhra Pradesh and Odisha with technical assistance/support of M/s TCIL are implementing EWDS, as part of NCRMP I, which includes the necessary equipment and training. This component will support the expansion of EWDS to the states of Goa, Gujarat, Karnataka, Kerela, Maharashtra, and West Bengal. The component will support the following:

a) **The installation of an EWDS** based on Satellite, Radio, Internet and Global System for Mobile Communication (GSMC) based technologies, including strengthening State Emergency Operation Centers (SEOCs) to send the warning through different communication channels directly to the village level. The following activities will be followed under this subcomponent:

   i) Under this, technology will be procured by the Focus States/SPIUs directly with technology option support provided by NDMA.

   ii) The SPIUs have to make an assessment, identify locations and draw up a model DPR to the effect. The various technology components and their associated services (including maintenance) proposed to be implemented have been listed in Annexure 1 with a brief summary.

- Design and Planning - Preparation of DPRs, Cost estimation and preparation of bidding documents including social and environmental screening, preparation of EMP, RAP etc. as necessary.
- Receipt of Tenders, Opening and preparation of bid evaluation reports, review and check by nodal officers and forwarding to PMU for final decision. (Procurement specialist within the PIU will be responsible)
- Award of contract for the procurement of works and goods.
- Implementation of works and Contract Management (acting as Engineer under the contract).
- Supervision of works, quality assurance and ensuring compliance with agreed social and environmental procedures and framework.

b) **Providing satellite phones/alternative technology** to key officials to fail proof the EWDS and also expand a new radio based wireless communication technology in selected blocks in each state; and strengthening the capacity of officials and village representative, including equally competent men, women, youth from socially marginalized groups, in operating, maintaining and using these EWDS equipment in disaster preparedness and response by preparing disaster management plans and organizing mock drills and similar exercises.

c) **Strengthening of community capacity** in maintaining and operating the EWDS as well as community mobilization during an emergency. Two types of training will be imparted at the village level:

i) *Technology Trainings*: The technology training will be undertaken for the PCCU Applications, GSM mobile phone features/Toolkit Applications and Alert Siren/loudspeaker systems. The vendor should impart end user training to users on solutions at the PCCU which will be used to allow end users to effectively and efficiently use the system to support the cyclone situations. The vendor will also ensure that all the staff are trained on the usage of relevant ICT that can be used for each function. Additionally, the GSM mobile phones, Alert Siren system, Satellite phones and Alert Siren/loudspeaker systems usage trainings will be based on "train the trainer model". In this case the PCCU staff will be trained to use and maintain the technology equipment, so that they can further go and train the authorities in the States. (Please see Annexure 1 on EWDS technology)

ii) *Community Trainings:* Component A also intends to support the State's/SPIUs efforts in disaster management by strengthening the capacities of coastal communities to deal with future disasters. Cyclone risk mitigation information and cyclone warnings will be communicated to the coastal villages through the proposed technology components. Along with training on the technology components outlined above, this sub-component will also improve community capacities to respond to a disaster. Community trainings will be undertaken in all identified coastal villages where component A is being implemented. Training will be organised for the villagers and district authorities. The training will equip the community and district authorities to organise the community, develop response plans, and appropriately interpret and respond to warnings.

4.2 Component B: Cyclone Risk Mitigation Infrastructure

5. This component will support preparedness and reduce the vulnerability of coastal communities through strategic infrastructure investment – that is improving access to emergency shelters, evacuation and protecting critical infrastructure against cyclones and other hydro meteorological hazards in high risk coastal areas of Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal. The SPIUs will implement this component. This will be done through the following investment:

i) Construction of Multi-purpose Cyclone Shelters

6. The highly vulnerable rural coastal areas of the country are affected by the limited availability of disaster proof critical buildings. There is a great need for safe structures like Cyclone Shelters (CS) which can help protect human lives as well as livestock during the 'Zero' hour of calamities. The following steps need to be followed for this sub-component:

a) *Assessment of Needs:* An assessment of the total requirement of cyclone shelters will be made by the focus states/ SPIUs. The factors that need to be considered are:

- Vulnerability of the area, need and requirement and of the number of Cyclone shelters;
- Present status of cyclone shelters in the State (if any);
- Percentage of the total number of people in a habitation/village that would have to be evacuated;
- Available of other building like schools, community halls and others which can be used as cyclone shelters;
- Community requirements, (number of shelters to be built)
- Identification of land site, design criteria, multiplicity of usage and arrangement for maintenance.

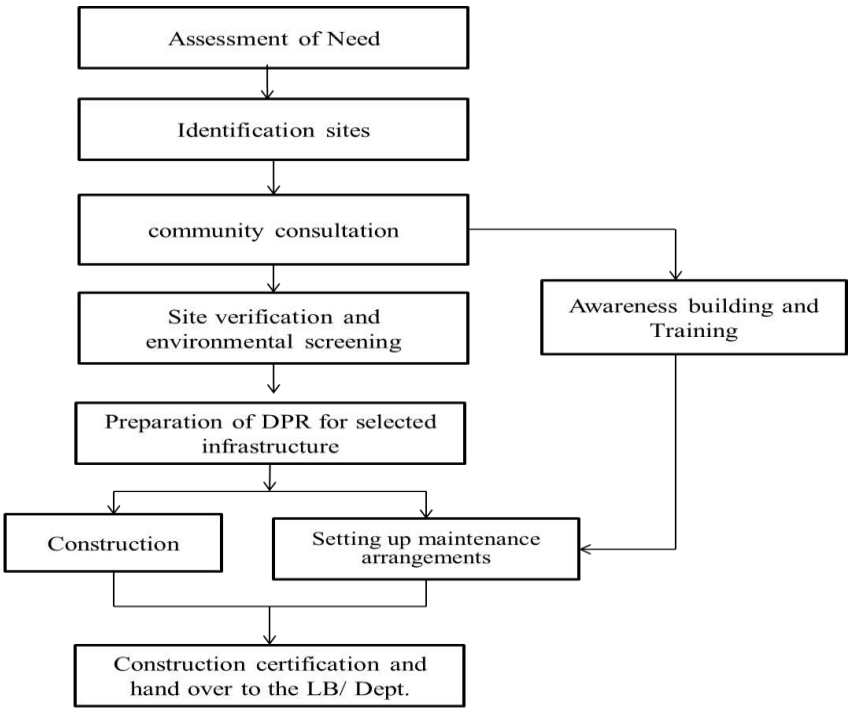


Figure 4 : Operational Procedure for construction of Multi-purpose cyclone shelters

b) *Identification of sites/location:* The land sites/ locations identification will take into account the vulnerability assessment of the coastal area. All the multipurpose cyclone shelters planned must be either in the existing school premises or on government identified lands.

c) *Community consultations:* All efforts will be made to involve the coastal community of the targeted states as a whole (men, women, youth, differently abled and elderly). Community involvement is ensured from the beginning and consultations will be carried from the preparation stage, especially in designing and locating the risk mitigation infrastructure. Further, the component B will also build community participation in co-management. Extensive Information, Education, and Communication (IEC) activities during project implementation will be undertaken to enhance community participation by the SPIUs/NGO for all the components. Participation of women and *Panchayat* members in this stage should be considered on priority. The public consultation will be designed in a way that:

- Affected/ vulnerable people are included in the decision making process;
- public awareness and information sharing on project alternatives and benefits are promoted; and
- Inputs/views on designs and solutions from the communities are solicited.
- Discussion on alternative/multi-purpose use of shelter is identified (school, community hall, training, others)
- Discussion on the management and maintenance of the cyclone

The Social Management Specialist from the SPIU will be responsible for maintaining a record of the proceedings and the final decisions.

d) *Social and Environment Screening:* Once the potential sites are identified/short-listed, an environment and social screening exercise will be carried out using the template provided in the ESMF (Annexure 3 and 4). This exercise will help in identification of environmentally sensitive areas such as presence of National Parks/Sanctuaries, Wildlife Corridors, Reserved/Protected forests, Cultural Properties etc. As well as social issues pertaining to ownership and current use of land. The results from this exercise will help in:

i) finalizing the sites for Cyclone Shelter construction;
ii) identification of the need to obtain any regulatory clearances (such as Forestry and CRZ clearances) for specific site/s (specifically where relocation is involved) and;
iii) establishing the need to carry out any further investigation/ assessment. Based on this, prioritization and phasing of the civil work program for construction would be worked out.
iv) ensuring community participation in the reconstruction process;
v) addressing differential impacts of the affected vulnerable/ marginalized families and groups, specifically socially excluded families living in isolated habitations, women headed households, and differently abled persons.

The process and documentation structure for social and environment screening exercise was developed under NCRMP I (currently under implementation in Odisha and Andhra Pradesh) and was found to be quite effective. The Environment Specialist and Social Development Specialist will be responsible for implementing this stage.

e) *Preparation of DPR:* Detail Project Reports (DPRs) will be prepared with technical design and construction drawings, soil investigation of site identified, estimated costs for each package and lots within, for works under each of the aforesaid subcomponent. Prior approval of the PMU and the Bank will be obtained before the works are tendered for contracting.

The PIUs entrusted with this component will be responsible for overall implementation of the component. Their function including:

i) Identification of site/location for MPCS constructed under the Project. (executive engineer will be responsible)
ii) Design and Planning - Preparation of DPRs, Cost estimation and preparation of bidding documents including social and environmental screening, preparation of EMP, RAP etc. as necessary.
iii) Receipt of Tenders, Opening and preparation of bid evaluation reports, review and check by nodal officers and forwarding to PMU for final decision. (Procurement specialist within the PIU will be responsible)
iv) Award of contract for the procurement of works and goods.
v) Implementation of works and Contract Management (acting as Engineer under the contract).
vi) Supervision of works, quality assurance and ensuring compliance with agreed social and environmental procedures and framework.
vii) Recommendation and payments.

f) *Construction and Design Consideration of structures*: Buildings, shelters and lifeline structures will be designed on the basis of existing Indian building codes and standards with multi-hazard features. The design must keep the identified area's population, depth of inundation and whether catering to cyclone or flood hazards. The cyclone shelters[9] are to be designed on the following premises:

i. To serve the population in a radius of 1.5 km from their location.
ii. Shelters are to be designed keeping in mind the expected storm surge height and wind speed at the place where it is to be located.
iii. The shelter should withstand storm surge and wind speed of the locality, adherence to existing codes regarding dead and live loads, soil bearing capacity, space, shape, disable friendliness etc.
iv. The shelter should have all weathered access roads, emergency water supply, power and communication equipment. Certain general design considerations need to be kept in mind which is in Annexure 2.

[9] GoI, 2005, 'Guidelines for Preparing Cyclone Risk Mitigation investments in States/UTs', prepared for NCRMP World Bank assisted project.

v. In addition, the Cyclone/flood Shelters are proposed to be multi-purpose buildings, integrated with day-to-day uses like schools, godowns, health centres, training centre, marriage halls etc. so as to ensure regular use and maintenance.

The contractor carries out the physical works. The PIU will sets up the necessary construction supervision arrangements.

g) *Operation & Maintenance (O&M)*: The O&M of cyclone shelters is proposed to be taken up by Cyclone Shelter Management and Maintenance Committees. The case of Odisha has demonstrated an effective model of community partnership and ownership of Shelters through the **Cyclone Shelter Management & Maintenance Committee** (CSM&MC), which have 50% women participation, established around each cyclone shelter that is also responsible for search and rescue, as well as first aid. Similar model will be facilitated in the targeted states under NCRMP –II. **A corpus fund** would be created by the states that would be used for the operation and maintenance of the cyclone shelters.

h) *Multi-purpose usage:* The shelters during normal period can be put to use as schools, community centers, social gathering centers by collecting suitable user fee and these funds can be used for maintaining these shelters.

i) *Handing Over*- The local body will be handed over the multi-purpose cyclone shelter in partnership with the established cyclone shelter Management and Maintenance committee.

j) *Third Party Technical Monitoring and Auditing:* To ensure technical quality of the multi-purpose shelter reconstruction, the project will appoint third party technical consultants to monitor and audit the reconstruction works supported by the program on a concurrent basis. The main objective of the technical audit is to provide quality control advises to the project management team along with technical suggestions to mitigate operational and construction quality issues as observed in the field.

ii) Construction of missing road links, bridges and culverts

7. There is a need for development of a reliable road network so as to ensure speedy evacuation of people to safer places during an impending disaster threat and also to ensure measures for relief in the event of a cyclonic storm surge attack. The component therefore aims to create road links to the following:

- Public cyclone shelters and/or to the existing private storm/storm surge resistant buildings.
- National/State highways from where the people can have access to safer localities.

8. **Roads and Bridge constructions/restorations** would also involve construction/restoration of en-route culverts and bridges. The objective of the construction of roads, culverts and bridges will be to provide all weather access to the villages and the cyclone shelters. Normally flexible pavements would be provided unless desired by considerations of rainfall and presence of unsuitable soil condition which would require use of rigid pavements.

9. This component will be implemented by the states that will establish a separate Project Implementation Unit (SPIU) (please see chapter 3 for implementation arrangement) under a Chief Engineer, and will ensure deployment of adequate staff for the entire duration of the project, either drawn from the department and or from open market on contract. The engineering staff from the designated department divisions in the field will supervise the implementation of subprojects approved under this component. Additional support to the SPIU will be provided through the engagement of consultants in identification, design, procurement, construction, supervision, monitoring, evaluation, financial management and reporting, to ensure quality and support to the engineers in the field for timely implementation of the contract packages approved for execution.

10. *Social and Environment Screening:* Once the potential sites are identified/short-listed, an environment and social screening exercise will be carried out using the template provided in the ESMF (Annexure 3 and 4). This exercise will help in identification of environmentally sensitive areas such as presence of National Parks/Sanctuaries, Wildlife Corridors, Reserved/Protected forests, Cultural Properties etc., if any; as well as social issues pertaining to resettlement of habitation, if any. The results from this exercise will help in:

i) finalizing the sites for missing road links/bridges/culverts construction;
ii) identification of the need to obtain any regulatory clearances (such as Forestry and CRZ clearances) for specific site/s (specifically where relocation is involved) and;
iii) establishing the need to carry out any further investigation/ assessment. Based on this, prioritization and phasing of the civil work program for construction would be worked out.
iv) ensuring community participation in the reconstruction process;
v) addressing differential impacts of the affected vulnerable/ marginalized families and groups, specifically socially excluded families living in isolated habitations, women headed households, and differently abled persons.

11. The process and documentation structure for social and environment screening exercise was developed under NCRMP I (currently under implementation in Odisha and Andhra Pradesh) and was found to be quite effective. The Environment Specialist and Social Development Specialist will be responsible for implementing this stage.

12. *Detail Project Reports (DPRs*) will be prepared with technical design and construction drawings, estimated costs for each package and lots within, for works under each of the aforesaid subcomponent. Prior approval of the PMU and the Bank will be obtained before the works are tendered for contracting. Extensive consultations will be held with the communities for design of bridle pathways and bridle bridges to ensure the alignments are conducive and acceptable to the user community. Wherever possible the community will be encouraged and trained on maintenance of these infrastructures.

13. *Design criteria*: Bridges and culverts are being designed for appropriate class of loading in accordance with the provisions of Indian Roads Congress (IRC) and height is based on navigational requirements. Prior soil investigations are carried out to design the suitable foundations for roads, bridges and culverts. These structures would be maintained by the concerned government agencies through their normal budgetary support.

14. The PIUs entrusted with this component will be responsible for overall implementation of the component. Their function including:

i. Identification of the bridges/ link roads to be constructed/reconstructed under the Project. (acting as Engineer under the contract).
ii. Design and Planning - Preparation of DPRs, Cost estimation and preparation of bidding documents including social and environmental screening, preparation of EMP, RAP etc. as necessary.
iii. Process technical and financial approval of the design and cost estimates respectively;
iv. Receipt of Tenders, Opening and preparation of bid evaluation reports, review and check by nodal officers and forwarding to PMU for final decision.
v. Award of contract for the procurement of works and goods.
vi. Implementation of works and Contract Management (acting as Engineer under the contract).
vii. Supervision of works, quality assurance and ensuring compliance with agreed social and environmental procedures and framework.
viii. Payment to contractors.

15. If roads originally constructed under the PMGSY are taken up for restoration under the project they will also be subject to supervision by the National/State Rural Road Development Agency.

16. *Management and Maintenance*

(i) *Management:* The responsible line Depts. may be made responsible day-to-day management regarding all the actual work of repair and retrofitting may be entrusted to the District Public Works Department /Roads and Building Department/ Panchayat Raj Engineering Department which-ever deals with roads/culverts/bridges in the concerned State/ UTs.

(ii) *Maintenance*

(a) The State/ UTs have to make a separate provision for carrying out the maintenance work of Road/Culverts/Bridges of cyclone prone areas in their annual budget.

(b) The District Public Works Department /Roads and Buildings Departments/Panchayat Raj Engineering Department whichever deals with roads/culverts/bridges in the concerned States/UTs is to be entrusted with the maintenance work.

17. *Grievances related to Procurement and other issues:* All procurement under the rural road connectivity component will follow the World Bank Guidelines for procurement of goods and services, and care will be undertaken so as to avoid discrepancies. In case of a complaint being made, it will be brought to the notice of the Chief Engineer or respective PIU. The person in-charge will take all possible measured to resolve the issue, and appropriately respond to the query. In cases where matter cannot be resolved at the level of PIU, it will be escalated to the PMU.

18. *Technical Supervision and Quality Assurances:* The project subcomponent would follow the technical guidelines recommended by the PMU. The state PIUs would ensure adherence to technical guidelines and quality parameters defined in the roads and bridges reconstruction documents. Third party quality auditors of PMU/PIU would audit the quality of works and PIU would ensure that corrective actions are taken to comply with the audit remarks. PMU would periodically review the compliance level by the PIU and issue necessary guidelines.

19. *Third Party Technical Monitoring and Auditing:* To ensure technical quality of the roads and bridges reconstruction, the project will appoint third party technical consultants to monitor and audit the reconstruction works supported by the program on a concurrent basis. The main objective of the technical audit is to provide quality control advises to the project management team along with technical suggestions to mitigate operational and construction quality issues as observed in the field.

iii) Construction/renovation of embankments

20. During cyclones, the saline water from the sea inundates villages and agricultural fields. The most vulnerable reaches along the coastline are to be identified and these areas (people, livestock and agricultural fields) are to be protected against the vagaries of the cyclonic action. Saline embankments are one such mitigation measure to protect people, livestock and agricultural fields from saline water inundation/storm surge. The NCRMP II includes the renovation of existing damaged embankments as well as construction of new embankments in vulnerable coastal areas. The following steps will be followed under this subcomponent:

a) *Identification of embankments*: Detailed assessment by the appointed executive engineer will be under taken to identify the damaged embankments as well as construction of new embankments in the vulnerable coastal areas. Based on the assessment the proposed interventions or remedial/improvement measures will be drawn up.

b) *Social and Environment Screening*: The screening exercise helps in early identification of key environmental issues at the sub-project level. The screening process forms the first step in the environment management process for the project and has been/is being carried out in parallel with the project identification/engineering feasibility studies for the sub-projects under consideration for inclusion in NCRMP.

c) *Stakeholder/ Community consultations:* Stakeholder involvement mechanisms are/will be central to the design and implementation of the project and provide opportunities for information sharing, consultation and collaboration measures. Guidance for this purpose has been laid out in the Environment and Social Management Framework to ensure proper consultation and involvement of key stakeholders during key stages of sub-project preparation and implementation. The Social Management Specialist from the SPIU will be responsible for maintaining a record of the proceedings and the final decisions.

d) *Preparation of DPR*: Detailed project report (PMU for final decision DPR) will be prepared with technical inputs and implementation layouts/ drawings, estimated costs for each package and lots within, this subcomponent. Prior approval of the PMU and the Bank will be obtained before the works are tendered for contracting. The PIUs entrusted with this

component will be responsible for overall implementation of the component. Their function including:

i. Identification of the embankment to be constructed/reconstructed under the Project. (acting as Engineer under the contract).
ii. Design and Planning - Preparation of DPRs, Cost estimation and preparation of bidding documents including social and environmental screening, preparation of EMP, RAP etc. as necessary.
iii. Adhere to disclosure norms as detailed in the ESMF for the project;
iv. Obtain necessary statutory clearances as required/applicable from the relevant authorities before tendering of works;
v. Process necessary technical and financial approvals for design and cost estimates;
vi. Receipt of Tenders, Opening and preparation of bid evaluation reports, review and check by nodal officers and forwarding to PIU for final decision.
vii. Award of contract for the procurement of works and goods.
viii. Implementation of works and Contract Management (acting as Engineer under the contract).
ix. Supervision of works, quality assurance and ensuring compliance with agreed social and environmental procedures and framework.
x. Payment to contractors.

21. *Technical Supervision and Quality Assurances:* The project subcomponent would follow the technical guidelines recommended by the PMU. The state PIUs would ensure adherence to technical guidelines and quality parameters defined in the roads and bridges reconstruction documents. Third party quality auditors of PMU/PIU would audit the quality of works and PIU would ensure that corrective actions are taken to comply with the audit remarks. PMU would periodically review the compliance level by the PIU and issue necessary guidelines.

22. *Third Party Technical Monitoring and Auditing:* To ensure technical quality of the embankment construction, the project will appoint third party technical consultants to monitor and audit the reconstruction works supported by the program on a concurrent basis. The main objective of the technical audit is to provide quality control advises to the project management team along with technical suggestions to mitigate operational and construction quality issues as observed in the field.

iv) Underground Electrical Cabling

23. During cyclones and heavy rains, some of the urban coastal communities suffer from constant power failure due to uprooting of power-lines and lamp posts. Hence the sub-component of Underground Cabling has been added in Phase-II for some of the States. It is proposed to convert HT& LT overhead lines into HT&LT cables for easy restoration of supply in a phased manner, in cyclone prone coastal areas. The following steps will be followed for the implementation of this sub-component.

a) Assessment Study: Detailed assessment will be carried out to identify the sites for underground cabling in the vulnerable coastal areas. A mitigation plans will be prepared, finalized and implemented based on the findings of the assessment study which will be cleared by the Bank.

b) *Social and Environment Screening*: This screening exercise helps in early identification of key environmental issues at the sub-project level. The screening process forms the first step in the environment management process for the project and has been/is being carried out in parallel with the project identification/engineering feasibility studies for the sub-projects under consideration for inclusion in NCRMP. Guidance for this purpose has been laid out in the Environment and Social Management Framework. The process and documentation structure for environment screening exercise was developed under NCRMP I (currently under implementation in Odisha and Andhra Pradesh) and was found to be quite effective. The Environment Specialist and Social Development Specialist will be responsible for implementing this stage.

c) *Stakeholder/ Community consultations*: Stakeholder involvement mechanisms are/will be central to the design and implementation of the project and provide opportunities for information sharing, consultation and collaboration measures. Guidance for this purpose has been laid out in the Environment and Social Management Framework to ensure proper consultation and involvement of key stakeholders during key stages of sub-project preparation and implementation

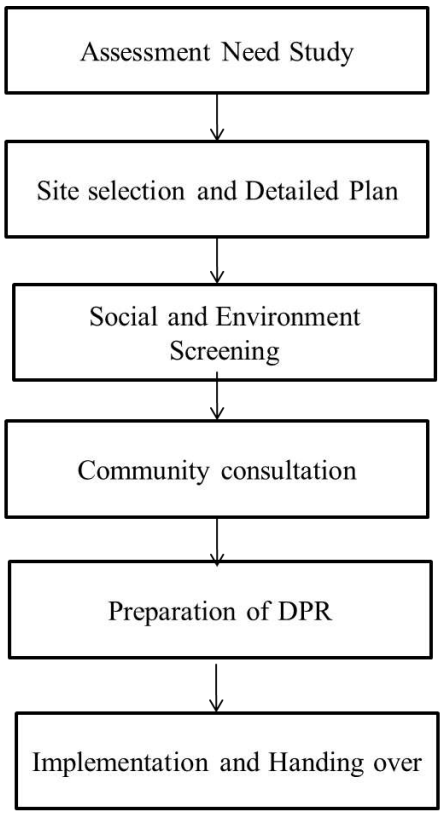


Figure 5: Operational Procedure for Underground Cabling

e) *Preparation of DPR*: The state electricity departments shall with assistance of state PIUs engage a consulting firm to prepare DPRs and submit the lines identified for conversion

from High Tension (HT) and Low Tension (LT) overhead lines to HT & LT underground cables, for appraisal before commencement of bidding and contract award for supply and installation. The DPR shall also include section wise details of the safeguards compliance with the approved ESMF for the project and also provide the cost of EMP and other compensations applicable for the affected people/land title owners, and or any other statutory fees required to be met for implementing this subcomponent. The costs of the consultancy will be paid by SPIU from the Incremental and Operating costs under Component D. The PIUs entrusted with this component will be responsible for overall implementation and monitoring of the component. Their function including:

i. Identification of the site for underground cabling under the Project. (acting as Executive Engineer under the contract).
ii. Design and Planning - Preparation of DPRs, Cost estimation and preparation of bidding documents including social and environmental screening, preparation of EMP, RAP etc. as necessary.
iii. Receipt of Tenders, Opening and preparation of bid evaluation reports, review and check by nodal officers and forwarding to PIU for final decision.
iv. Award of contract for the procurement of works and goods.
v. Implementation of works and Contract Management (acting as Engineer under the contract).
vi. Supervision of works, quality assurance and ensuring compliance with agreed social and environmental procedures and framework.
vii. Payment to contractors

f) *Implementation and management*: The Infrastructure would be maintained by the concerned government agencies through their normal maintenance budgets.

24. *Technical Supervision and Quality Assurances:* The project subcomponent would follow the technical guidelines recommended by the PMU. The state PIUs would ensure adherence to technical guidelines and quality parameters defined in the roads and bridges reconstruction documents. Third party quality auditors of PMU/PIU would audit the quality of works and PIU would ensure that corrective actions are taken to comply with the audit remarks. PMU would periodically review the compliance level by the PIU and issue necessary guidelines.

25. *Third Party Technical Monitoring and Auditing:* To ensure technical quality of the underground electric cabling, the project will appoint third party technical consultants to monitor and audit the reconstruction works supported by the program on a concurrent basis. The main objective of the technical audit is to provide quality control advises to the project management team along with technical suggestions to mitigate operational and construction quality issues as observed in the field.

4.3 Component C: Technical Assistance for Multi-Hazard Risk Management

26. The objective of this component is to improve the quality of available information on Multi-Hazard Risks for decision making and strengthening multi-hazard risk management at the National Level.

27. The PMU-NDMA will be the nodal agency for this component. The NDMA will draw up TORs for hiring consulting agency to conduct risk and vulnerability assessment, conduct informal consultancy, develop documents/manuals, share with the concern coastal states, etc.

28. The components will be included the following subcomponent.

i) Coastal Multi-hazard Risk Modeling and Assessment

- *Assessment*: In NCRMP I, NDMA undertook a hazard and risk assessment of coastal India. The understanding of risk and vulnerabilities from NCRMP I will be carried forward through improved probabilistic risk modeling allowing for modeling of multi-hazard and cascading impacts of disasters along coastal India.

- *Developing a Manual*: On the basis of the assessment a manual will be developed by NDMA on building classification and undertake micro-level assessments of highly exposed areas, including residential assets, public buildings, and critical infrastructure. Open source platforms for probabilistic risk analysis, which are modular and extensible such as the Comprehensive Approach to Probabilistic Risk Assessment (CAPRA), will be used. This methodology will help the targeted state, district, and local self-governance institutions in improving the design and implementation of development programs in the long run and improve their sustainability. This will also assist National and state agencies to make informed decisions in urban planning and service delivery, approvals for new buildings and infrastructure, building codes and zoning and environment planning.

ii) Strengthening Emergency Recovery Capacity

29. This subcomponent will support the implementation of the key findings from the Capacity Building study (at national, state and local level) undertaken by NIDM in NCRMP I focused on risk and damage assessment. The findings will feed into developing training modules that will focus on strengthening capacity of the Focus State's disaster responders.

iii) Enhancing the Capacity for Disaster Risk Management and response in non-coastal states

This subcomponent will entail the following:

- The Multi-hazard risk assessment will support a systematic assessment of the current and future disasters and climate risks, focusing on urban areas in non-coastal states. A web-based GIS platform will be established to store and manage the data gathered. Modeling will also be undertaken on a pilot basis for high risk flood areas and potentially landslide risk areas to factor in cascading multi-hazard disaster impacts

- The Pilot physical structural assessment for non-coastal states would assist in a pilot initiative to train engineers on the assessment of the physical vulnerability of public buildings and critical infrastructure to seismic and other hazardous events. This detailed assessment will be carried out following the development of a methodology for identification of critical

infrastructure, a comprehensive multi-hazard check-list and accepted assessment guidelines. A pilot initiative would also train engineers on the assessment of vulnerability of communities to landslide events. The purpose of the assessment will be to identify areas that are prone to land slip, based on the steepness of slopes, soil dynamics and propensity for exposure to high rainfall events. This subcomponent would be implemented by initiating small projects and training state-level department engineers in selected districts. To benefit the wider national population of engineers, the subcomponent will also include an easy-to-understand technical document, known as a 'Practice Guidelines' report.

- Strengthening capacity for disaster response will support strengthening the capacity of emergency responders (local governments, first responders and other agencies involved in disaster response) in selected urban areas that are considered highly vulnerable to the impacts of earthquakes or landslides. The capacity gaps that are highlighted during the institutional analysis would be addressed under this subcomponent. This subcomponent will also facilitate upgrading search and rescue equipment's for fire-fighters, police, the National Disaster Response Force, and other first responders. Equipment upgrades will also be coupled with proper training in the use and deployment of these tools in pilot selected cities.

iv) Hydro-meteorological Resilience Action Plans

30. This subcomponent would support the focus states in preparing resilience action plans that will focus on extreme weather events; develop resilience solutions/recommendations for sectors impacted by disasters such as agriculture, livelihoods, energy, infrastructure etc.; and focus on urban hot-spot areas in helping develop urban resilience plans.

v) Design of a National Seismic Risk Mitigation Program

31. This subcomponent will assist the MHA and the NDMA in the design of a comprehensive National Seismic Risk Mitigation Program. This will encompass activities that will strengthen risk assessment capabilities, raising public awareness, strengthening of building codes and land-use regulations, piloting retrofitting of critical infrastructure, and developing risk financing framework.

4.4 Component D: Project Management and Implementation Support

32. This component will provide support for project management by financing incremental operating costs for Project Management Unit (PMU) and the Project Implementation Units (PIUs) in the participating States.

33. In addition, the component will include consultancies required for the preparation and supervision of specific activities, trainings, exposure visits and knowledge exchange programs.

34. The State Project Implementation Units (SPIUs) are responsible for preparing a list of all necessary staff (including TORs) to carry out components B that is included in the Operations Manual, and in the project's procurement plan. A yearly work plan should also include the estimated budget for implementation support, which can be revised from time to time

Chapter 5: Financial Management Arrangements

5.1 Institutional Arrangement

1. The guiding principles for the design of the financial management arrangements for this project are twofold:

i) build upon the successful implementation of the NCRMP I project with the same implementing agency at the center (NDMA) and
ii) use the country fiduciary systems, to the extent feasible and considered satisfactory for meeting the essential fiduciary requirements. NDMA (at the center) will have the overall financial management responsibility for the project.

2. At the state Gujarat State Disaster Management Authority (GSDMA) in Gujarat, Maharashtra Department of Relief and Rehabilitation (MDRR) in Maharashtra, Revenue and Disaster Management Department (R&DMD) in Kerala, West Bengal Department of Disaster Management (WBDDM) in West Bengal, and Karnataka Revenue Department in Karnataka and Goa Water Resources Department under the oversight of Revenue Department in Goa will have the respective states financial management responsibility. These agencies along with strengthening measures proposed are assessed to have adequate financial management system for reporting project funds and expenditure and providing fiduciary assurance over the use of project funds.

3. The parameters of the financial management arrangements are as described below.

5.2 Budgeting

4. At the central level, Ministry of Home Affairs (MHA) shall make an annual allocation for the project in its budget under a separate Revenue Expenditure head. Similarly, states will make a provision for the central as well state share of the program in their own budgets under the capital expenditure head. Wherever the state is operating through the mainstream accounting and payment system, budget codes have to be opened to record component wise transactions. In case they operate through single budget line then they will have to maintain memorandum registers to track project expenditures by component/activity wise to facilitate reporting and monitoring.

5.3 Fund flow arrangements

5. The approved budget based on NDMA proposal will be released by MHA to states. State treasury will further release the budget to the nodal agency or directly to the line departments (based on nodal agency proposal). The funds transfer will follow specific pre-determined criteria as defined in the Financial Management Manual (FMM).

5.4 Accounting

6. Accounting for project expenditures will be maintained on cash basis of accounting and separate books of accounts/ ledgers will be maintained for the project. To ensure consistency in the financial management function across the project implementing entities, NDMA has prepared

a Financial Management Manual (FMM) which compiles Project accounting policies/ procedures, funds flow arrangements, chart of accounts and formats for books of account/ reporting. Any advances paid will be classified as advances and will be charged to expenditure only upon receipt of actual expenditure detail. However, mobilization advance given as per contract terms and generally paid against bank guarantee are taken to expenditure at the time of payment. Subsequently, deductions are made from the running bills of the contractor and net amount is then booked to expenditure. The actual expenditure will be reported in quarterly IUFR (Please see Annexure 8) and will be subject to audit certification at the end of the year. Standard Books of Account/ Records will be maintained at NDMA as well as the Project Implementing offices. A register of fixed assets, indicating assets created/ acquired through the project will also be maintained. Particular attention will be given to maintenance of works and contractor's registers.

5.5 Reporting

27. Each state will prepare quarterly Interim Unaudited Financial Reports (IUFR) on the basis of actual expenditure information received from the line departments and actual expenditure incurred at the SPIU and reconciled with the State Accountant General and will send the same to NDMA. NDMA will send consolidated IUFR to the Bank, within 45 days from the end of each calendar quarter. The templates of the IUFRs are in Annexure 8.

5.6 Staffing and training

28. Considering that there are six additional states under this project, the existing finance staff strength at NDMA, which consists only of a Financial Controller, needs to be augmented. Finance manager either from the center finance services or a qualified Chartered Accountant with at least 8 years of post-qualification experience needs to be appointed. Similarly, each state finance function will be headed by a finance controller and supported by an accountant. These staff needs to be on board 3 months of project effectiveness.

5.7 Internal Controls including Internal Audit

29. Reconciliation of expenditure with the AG is concurrent and would be an essential control mechanism in the Project and would be regularly followed up with the implementing department. The SPIU would maintain a contract register centrally, tracking all contracts and mobilization advances paid, settled and outstanding against these contracts together with the ageing of advances. This will provide the project with information required on pending payments and help track project progress. The Bank project will be audited six monthly by a firm of Chartered Accountant agreed with the Bank. The auditors will be responsible for completing the audit at the SPIU and at the line departments divisions under TOR agreed with the Bank, and review and comment on the adherence to the rules and procedures of the state and the effectiveness of internal controls.

5.8 External Auditing

30. The annual external audit of the Project Financial Statements (PFS) of GSDMA and NIDM will be carried out by a firm of Chartered Accountant appointed based on selection criteria acceptable to the Bank and their TOR will also be agreed with the bank. In case of states

where nodal agency is a department, the C&AG of India through the office of the Accountant General (Audit state will be the external auditor. The C&AG's office will conduct an annual audit of the financial statements of the project according to the standard Terms of Reference (TORs) agreed by the Bank with the C&AG and the Government of India (Ministry of Finance/DEA) for audit of all the World Bank projects. The audit reports will be submitted to the Bank within nine months of the close of the financial year i.e. by December 31. The following table 6 shows audit reports that will be monitored in ARCS.

Table 6: States and Audit Reports

Implementing Agency	Audit	Auditors
GSDMA, Govt. of Gujarat	Audit of project financial statements	Private Auditors
Maharashtra Department of Relief and Rehabilitation (MDRR), Govt of Maharashtra	Audit of project financial statements	CAG of India through the Accountant General Maharashtra
Kerala Revenue and Disaster Management Department (R&DMD), Government of Kerala	Audit of project financial statements	CAG of India through the Accountant General Kerala
West Bengal Department of Disaster Management (WBDDM), Government of West Bengal	Audit of project financial statements	CAG of India through the Accountant General West Bengal
Karnataka Revenue Department, Government of Karnataka	Audit of project financial statements	CAG of India through the Accountant General Karnataka
Goa Water Resources Department, Government of Goa	Audit of project financial statements	CAG of India through the Accountant General Goa
NDMA	Audit of project financial statements	CAG

5.9 Implementation Support Plan

31. Initially, the Bank will undertake quarterly missions covering each of the state once in a year. The focus during the supervision will be on reviewing the adequacy and operation of procedures and internal controls at SPIU and field divisions, functioning of project financial reporting system, reviewing the funds flow position and reviewing that the observations of the external and internal auditors are addressed timely.

5.10 Disbursement Arrangements

32. Each state budget will pre-finance all the project expenditure through its own funds (through the budget line) and disbursements from the credit will be made basis the actual expenditure reported in the quarterly IUFRs, subject to audit certification at the end of each financial year. Expenditure categories eligible for financing under the credit agreement and as per the disbursement percentage will be financed out of the proceeds of the credit. The actual expenditure will be reimbursed to the project and no advances will be provided and hence the need of the designated account has to be agreed at the time of negotiations. The project will submit withdrawal application to CAAA in DEA for onward submission to the World Bank for reimbursement.

5.11 Retroactive Financing

33. Retroactive financing up to a limit of US$ 61 million (max is 20%) of the credit will be available to the project to cover eligible project expenditures as agreed with the Bank, provided (a) the payments are made not more than 12 months before the expected date of signing of the legal agreements; (b) the activities financed by retroactive financing are related to the DOs and are included in the Project description; (c) the payments are for items procured in accordance with the applicable Bank procurement procedures. Retroactive financing of all expenditure will be based on a separate, stand-alone audited project financial statements.

5.12 Public Disclosure

34. In line with the Bank's Access to Information policy the annual audit report and project financial statements issued by the auditors will be disclosed in the project's website.

Chapter 6: Procurement Management Arrangements

6.1 General

1. Procurement of all goods, works and non-consulting services required for the proposed Project and to be financed out of the proceeds of the Financing shall be done in accordance with the requirements set forth or referred to the Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers (January 2011 revised July 2014). Selection of consulting services required for the proposed Project and to be financed out of the proceeds of the Financing shall be done in accordance with the requirements set forth or referred to in the Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits by World Bank Borrowers (January 2011, revised July 2014); and the provisions stipulated in the Financing Agreement.

2. For each contracts to be financed by the loan/credit, the different procurement methods or consultants selection methods, prior review threshold, timeframe etc. are agreed in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. General Procurement Notice (GPN) was published on October 16, 2014 in UNDB and Specific Procurement Notice (SPN) shall be published against corresponding contract packages when it becomes ready. All goods, works and services financed under the proposed project shall be procured using the Bank's Standard Bidding Documents (SBDs) and Standard Request for Proposals (SRFPs).

6.2 Implementation Arrangement for the Project

3. The NCRMP II consists of four components: A) Early Warning Dissemination System; B) Cyclone Risk Mitigation Infrastructure; C) Technical Assistance for Multi-hazard Risk Management; and D) Project Management and Implementation support. Components C and D will be implemented by NDMA while, component A and B will be implemented by respective SPIUs/line departments.

4. The project shall be implemented using similar institutional and implementation arrangements under NCRMP I both at central and state level. At the central level, NDMA on behalf of MHA will house the PMU with the mandate to manage the project with overall responsibility for implementation. The existing PMU headed by a Project Director and supported by technical expert and management staff shall be strengthened.

5. At the 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 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.

6.3 Procurement Cell and Staffing

6. The PMU/SPIU shall establish procurement cell with adequate procurement staff. The procurement cell shall operate under the overall directions and guidance of Project Director in PMU and state Project Director in SPIU. All procurement activities under this project shall be processed through this cell in coordination with technical units/line departments. The procurement officer with the PMU and SPIU will receive adequate training in Bank funded procurement. A 1-day induction course on Bank funded procurement procedures had been conducted in May 2014 and refresher training course shall be conducted as and when required during the implementation stage.

6.4 Method of Procurement

7. The following methods of procurement shall be used for procurement under the project. It is to be noted that if a particular invitation for bid comprises of several packages, lots or slices, and invited in the same invitation for bid, then the aggregate value of the whole package determines the applicable threshold amount for procurement and also for the review by the Bank.

Table 7: Procurement Methods

Category	***Method of Procurement***	***Threshold (US$ Equivalent)***
Goods and Non-consulting services(including IT contracts)	*ICB*	*>3,000,000*
	LIB	*wherever agreed by Bank*
	NCB	*Up to 3,000,000 (with NCB conditions)*
	Shopping	*Up to 100,000*
	DC	*As per para 3.7 of Guidelines*
	Force Account	*As per para 3.9 of Guidelines*
	Framework Agreements	*As per para 3.6 of Guidelines*
Works	*ICB*	*>40,000,000*
	NCB	*Up to 40,000,000 (with NCB conditions)*
	Shopping	*Up to 200,000*
	DC	*As per para 3.7 of Guidelines*
	Force Account	*As per para 3.9 of Guidelines*
Consultants' Services	*CQS*	*Up to 300,000*
	SSS	*As per para 3.9-3.11 of Guidelines*
	Individuals	*As per Section V of Guidelines*
	QCBS/QBS/FBS /LCS	*for all other cases*
	(i) International shortlist *(ii) Shortlist may comprise national consultants only*	*>800,000* *Up to 800,000*

6.5 Procurement of Goods, Works and non-consulting services

8. For each contracts to be financed by the loan/credit, the different procurement methods or consultants selection methods, prior review threshold, timeframe etc. are agreed in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. All goods, works and services financed under the proposed project shall be procured using the

Bank's Standard Bidding Documents (SBDs) and Standard Request for Proposals (SRFPs).

6.6 Procurement of Goods

9. At the central level, procurement of goods would include supply and installation of early warning equipment and public address system for relaying the warning/advisories to the communication directly to the communities along the costal line 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 channels. The component also includes providing satellite phones/alternative technology to key officials to fail proof the EWDS and also expand a new radio based wireless communication technology in selected blocks in each state. The EWDS shall be installed along the costal lines in the state of Gujarat, Maharashtra, West Bengal, Kerala, and Karnataka.

10. At the state level, procurement of goods would involve cyclone shelter kits, office equipment, furniture etc. Procurement shall be conducted using Bank's SBD for International Competitive Bidding (ICB) for those packages which fall under ICB threshold and National SBD as agreed with GOI Task Force (and as amended from time to time) for the National Competitive Bidding (NCB) with additional provisions mentioned below.

6.7 Procurement of Works

11. Procurement of civil works under this project would include creation of physical infrastructure for cyclone risk mitigation under component B. this would include construction of Multipurpose Cyclone Shelter (MPCS) as safe place during cyclone, access roads and bridges to MPCS, embankments for protection against salinity ingress, drainage improvement measures and retrofitting of key installations. International Competitive Bidding (ICB) is unlikely to happen as most of the Contract packages fall below ICB threshold. Procurement of works in all states shall be done using National SBD as agreed with GoI Task Force (and as amended from time to time) and the following additional provisions shall apply:

- Only the model bidding documents for NCB agreed with the Government of India's Task Force (and as amended from time to time), shall be used for bidding.
- Invitations for bid shall be advertised in at least one widely circulated national daily newspaper (or on a widely used website or electronic portal with free national and international access along with an abridged version of the said advertisement published in a widely circulated national daily inter-alia giving the website/electronic portal details from which the details of the invitation to bid can be downloaded), at least 30 days prior to the deadline for the submission of bids
- No special preference will be accorded to any bidder either for price or for other terms and conditions when competing with foreign bidders, state-owned enterprises, small-scale enterprises or enterprises from any given State.
- Except with the prior concurrence of the Bank, there shall be no negotiation of price with the bidders, even with the lowest evaluated bidder.
- Extension of bid validity shall not be allowed with reference to Contracts subject to Bank prior review without the prior concurrence of the Bank (i) for the first request for extension if it is longer than four weeks; and (ii) for all subsequent requests for extension

irrespective of the period (such concurrence will be considered by Bank only in cases of Force Majeure and circumstances beyond the control of the Purchaser/ Employer).

- Re-bidding shall not be carried out with reference to Contracts subject to Bank prior review without the prior concurrence of the Bank
- The system of rejecting bids outside a pre-determined margin or "bracket" of prices shall not be used in the project
- Rate contracts entered into by Directorate General of Supplies and Disposals (DGS&D) will not be acceptable as a substitute for NCB procedures unless agreed with the Bank on case to case basis. Such contracts will be acceptable however for any procurement under the Shopping procedures.
- Two or three envelope system will not be used (except when using e-procurement system assessed and agreed by the Bank)

12. **Shopping:** Shopping method in accordance with paragraph 3.5 of the Procurement Guidelines shall be adopted for procuring readily available off-the-shelf goods of value less than US$ 100,000 or simple civil works of value less than US $ 200,000. For shopping procedure, list of vendors/contractors already registered with government departments may be used for inviting quotations. The procurement plan should determine the cost estimate of each contract, and the aggregate total amount. The borrower should solicit at least three price quotations for the purchase of goods, materials, or services (non-consulting), to formulate a cost comparison report.

13. **Framework Agreement:** DGS&D rate contracts will be acceptable as framework agreement for procurement of Goods. State level rate contracts will be examined by the Bank and if agreed, may also be used as framework agreements. Implementing agencies also have option to set-up new framework agreements as per paragraph 3.6 of Guidelines.

14. **Direct Contracting:** Goods, works and non-consulting services which meets the **requirement** of para 3.6 of the Bank Procurement Guidelines may be procured following Direct Contracting method.

15. **Advance Procurement:** Retroactive financing up to an amount of 20% of the project amount will be available for financing expenditures incurred 12 months prior to Loan signing.

6.8 Selection of Consultants

16. Procurement of Consultants by all the IAs will be conducted using Bank's Standard Request for Proposal (SRFP) for selection of consultants. Consultancies will be procured under Component C to undertake studies on multi-hazard risk modeling and assessment, enhancing capacities for disaster risk management and response in non-costal states, technical assistance to states for preparing high priority risk mitigation investments etc. The consultancies may also be procured for Project Management Consultants (PMCs), Third Party Quality Audits (TPQA) for works, internal and external auditors and individual consultants for specific inputs. The following methods will be adopted depending upon size and complexity of assignments and as agreed in the Procurement Plan.

- Quality and Cost Based Selection (QCBS);
- Quality Based Selection (QBS);

- Selection under Fixed Budget (FBS);
- Least Cost Selection (LCS);
- Selection based on Consultant's Qualification (CQS);
- Single Source Selection (SSS); and
- Individuals.

17. Short list of consultants for services estimated to cost less than US$ 800,000 equivalent per contract may be composed entirely of national consultants in accordance with the provision of paragraph 2.7 of the Consultants Guidelines.

18. The choice of the appropriate method of selection is related to the nature, size, complexity and likely impact of the assignment, technical and financial considerations. The method of selection for each consultancy shall be given in the procurement plan and the PMU/PIU will execute the procurement plan agreed with the Bank. No selection shall be initiated outside procurement plan and such selection shall not be eligible for Bank financing.

QUALITY AND COST BASED SELECTION (QCBS)

19. QCBS is the method based on the quality of the proposals and cost of services to be provided. This method is appropriate when:

- The scope of work assignment is precisely defined and the TOR are well specified and clear
- An estimate with reasonable precision for the staff time as well as the other inputs and cost required of the Consultants can be assessed.

20. The following steps are to be followed in QCBS method of selection of consultants.

(i) Establish need for the assignment and outsourcing the services
(ii) Preparation of the Terms of Reference (TOR)
(iii) Preparation of cost estimate and the budget
(iv) Agreeing on the Contracting Strategy
(v) Advertising (for short listing of the firms when the purchaser has no knowledge about the firms who could take up the assignment)
(vi) Preparation of the shortlist of consultants
(vii) Preparation and issue of Request for Proposal (RFP) to shortlisted consultants containing

- Letter of Invitation (LOI)
- Information to Consultants (ITC) Standard form of Technical and Financial proposals.
- Terms of Reference (TOR)
- Standard Form of Contract

(viii) Receipt of proposals
(ix) Opening and Evaluation of technical proposals

(x) Opening of financial proposals of technically qualified consultants scoring the minimum technical score, and, evaluation of these financial proposals
(xi) Combined evaluation of quality and cost
(xii) Negotiations and award of the contract to the firm selected with the highest combined score

21. QCBS is appropriate for assignments such as:

- Feasibility studies and designs;
- Preparation of bidding documents and detailed designs;
- Supervision of construction of works and installation of equipment;
- Technical assistance services and institutional development of Client agencies; and
- Procurement and inspection services.

22. Detailed explanation for some of the key processes involved in QCBS is outlined below.

(i) Preparation of TORs

23. The Terms of Reference should include:

- A precise statement of objectives
- An outline of the tasks to be carried out
- A schedule for completion of tasks
- The support/inputs provided by the client
- The final outputs that will be required of the Consultant
- Composition of Review Committee (at least three members and no more than seven including qualified specialist in the sector) to monitor the Consultant's works
- Review of the Progress Reports required from Consultant
- Review of the final draft report
- List of key positions whose CV and experience would be evaluated.

(ii) Preparation of Cost Estimate or the Budget

24. The Cost Estimates or Budget should be based on the assessment of the resources needed to carry out the assignment, staff time, logistical support, and physical inputs (for example, vehicles, office space and equipment). Costs shall be divided in to three broad categories;

- Fee or remuneration;
- Reimbursable costs; and
- Miscellaneous expenses.

(iii) Deciding the Selection Strategy

25. Before starting the selection process, it is essential to agree on strategy viz. going for lump-sum or time based contract, individual vs. firm, advertising vs. internal short listing, terms of payment etc. Various selection methods along with the thresholds applicable to each of them are mentioned in the table on Procurement Methods, of this chapter.

(iv) Advertising

26. Advertisement is issued asking the potential consultants to indicate their interest in the assignment and provide abridged CVs of the proposed team members, their previous experience in similar type of assignment and the financial statement of the organization through last 3 years balance sheets. The advertising may be issued in at least one largely circulated English language National Newspaper and one Vernacular Newspaper. In addition, contracts expected to cost more than US $300,000 shall be advertisement in UNDB online and DgMarket.

(v) Short listing

27. If the assignment has been advertised, the expressions of interest received shall be evaluated to arrive at shortlist of consultants. In preparation of the shortlist, first consideration shall be given to those firms expressing interest, which possess the relevant qualifications. The shortlists shall comprise of six firms. In contracts below US$800,000 equivalent, shortlist may comprise national consultants and if the contract is more than US$800,000 then norms of maximum number of consultant per country will apply. Government owned enterprises could be considered for award of consultancy assignment provided they are otherwise eligible as per the Bank's guidelines.

(vi) Type of Contract

28. Various types of contracts that could be used are as under:

29. **Lump Sum** – These contracts are used for assignments in which the content and the duration of the work is clearly defined. Payment is made upon delivery of outputs. The main advantage of this type of contract is that it is easy to administer. Examples of Lump Sum contracts include Feasibility Studies, Environmental Studies, Detailed design of a standard structure etc.

30. **Time Based** - These contracts are used for assignments in which it is difficult to define the scope and the duration of the work to be performed. Payment is based upon an hourly, daily, or monthly rate, plus reimbursable expenses using actual expenses or agreed-upon unit prices. This type of contract provides for a maximum total payable amount that includes a contingency for unforeseen work and duration, price adjustments, etc. Examples of Time Based contracts include Preparation of data, Complex Studies, Supervision of construction of civil works, Training assignments, Advisory services etc.

(vii) Evaluation

31. Under QCBS the technical and financial proposals are submitted simultaneously in separate sealed envelopes (two-envelope systems). Evaluation of proposals is carried out in and approved by the Bank, and technical scores are disclosed publicly.

32. After technical evaluation, consultants whose proposals did not meet the minimum qualifying standard or were considered non-responsive to the RFP and/or TOR, are informed indicating that their financial proposals would be returned unopened after completing the selection process.

33. The consultants that have successfully satisfied the qualifying standard by meeting the minimum technical score are informed indicating the venue, date and time set for opening of their financial proposals. Opening of financial proposals is not later than 3 weeks from the date of notification to the technically qualified consultants. The financial proposals are opened publicly on the designated date, time and venue, in presence of the representatives of the consultants who choose to attend. The name of the consultant, the technical scores, and the proposed prices are read aloud and recorded when the financial proposals are opened. The minutes of the opening of financial proposals shall be prepared.

(viii) Combined Evaluation

34. The combined evaluation of technically qualified proposals is usually done by assigning 80% weight to the technical score and 20% to the financial score. The breakup of score however should be mentioned in the RFP. The consultant scoring the highest marks is recommended by the committee for award of contract and invited for negotiations.

(ix) Negotiations

35. Negotiations are not an essential part of the selection process. In many cases, however, it may be necessary to conduct negotiations with the selected consultant on the TOR, the methodology, staffing, Employer's inputs, and special conditions of the contract. These discussions shall not substantially alter the original TOR or the terms of the contract, lest the quality of the final product, its cost, and the relevance of the initial evaluation is affected.

36. The final TOR and the agreed methodology is incorporated in the "Description of Services," which forms part of the contract. Since price is a factor of selection, staff rates and other unit rates shall not be negotiated. There are various formats to be used for issuing EOI, ToR, RFP, Bid Evaluation Report etc.

37. For more details, please Refer Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011 updated July 2014.

<u>QUALITY BASED SELECTION (QBS)</u>

38. Quality Based Selection is based on an evaluation of the quality of the proposals and the subsequent negotiation of the financial proposal and contract with the consultant who submitted the highest ranked technical proposal. QBS is appropriate when:

- the downstream impact of the assignment is so large that the quality of services becomes of overriding importance for the outcome of the project
- Complex or highly specialized assignments for which TOR are difficult to define and there is need to select among innovative solutions
- the assignment can be carried out in substantially different ways such that cost proposal may not easily be comparable
- the introduction of cost as a factor of selection renders competition unfair.

39. QBS should be adopted for assignments such as:

- Complex country sector and multi-disciplinary investment studies
- Strategic studies in new fields of policy and reforms
- Master plans, complex pre-feasibility and feasibility studies and design of complex projects
- Assignments in which traditional consultants, non-government organization (NGO) and/or U.N. agencies compete

40. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011 updated July 2014.

LEAST COST SELECTION (LCS)

41. Under LCS a minimum qualifying mark for quality is established and indicated in the RFP. Short-listed consultants have to submit their proposals in two envelopes. The technical proposals are opened first and evaluated. Proposals scoring less than minimum qualifying marks are rejected, and the financial envelopes of the rest are opened in public. The consultant with the lowest evaluated price is selected.

42. The LCS method is more appropriate for small assignments of a standard or routine nature where well-established practices and standards exist from which a specific and well-defined outcome is expected, which can be executed at different costs, i.e.

- Standard accounting audits
- Engineering designs and/or supervision of simple projects
- Repetitive operations and maintenance work and routine inspection
- Simple surveys

43. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011 updated July 2014.

FIXED BUDGET SELECTION (FBS)

44. FBS is based on disclosing the available budget to the invited consultants in RFP and selecting the consultant with the highest – ranking technical proposal within the budget. It needs to be ensured that budget is compatible with the TOR and that consultant will be able to perform the tasks within the budget. FBS is appropriate only when:

- the budget is fixed and cannot be exceeded
- the TOR are simple and assignment can be precisely defined
- the time and staff month effort required from the Consultant can be assessed with precision

45. Typical assignments awarded using FBS are:

- sector studies, market studies, and surveys of limited scope
- simple pre-feasibility studies and review of existing feasibility studies
- review of existing technical design and bidding documents

- project identification for which the level of detail can be matched with the available funds

46. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011 updated July 2014.

SELECTION BASED ON CONSULTANTS QUALIFICATION (CQS)

47. CQS method applies to very small assignments for which the full–fledged selection process would not be justified. CQS is considered for assignments such as:

- brief evaluation studies at critical decision points of projects
- executive assessment of strategic plans
- high level, short term, legal–expertise
- participation in project review expert panel

48. Under CQS the Clients first prepare the TOR, then request for Expression of Interest and qualification information on the consultant's experience and competence relevant to the assignment. The Client establishes a short list and selects the firm with the best qualifications and references. The selected firm is asked to submit a combined technical and financial proposal and is subsequently invited to negotiate the contract if the technical proposal proves acceptable.

49. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011 updated 2014.

SINGLE SOURCE SELECTION (SSS)

50. SSS involves asking a specific consultant to prepare technical and financial proposals, which are then negotiated. Since there is no competition, this method is acceptable to the Bank only in exceptional cases and made on the basis of strong and convincing justification where it offers clear advantages over the competition.

51. Circumstances under which SSS may be adopted are as below ;

- the assignment represents a natural or direct continuation of a previous one awarded competitively, and performance of the incumbent consultant has been satisfactory
- a quick selection of consultant is essential e.g. in emergency operation and financial crisis
- the assignment is very small in value
- only one consulting organization has the qualification or experience of exceptional worth to carry out the assignment

52. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011.

SELECTION OF INDIVIDUAL CONSULTANT (IC)

53. Consultants shall be selected through comparison of qualifications of at least three candidates among those who have expressed interest in the assignment or have been approached directly by the Client. Individuals considered for comparison of the qualifications shall meet the

minimum relevant qualifications and those selected to be employed by the Client shall be the best qualified and shall be fully capable of carrying out the assignment. Capability is judged on the basis of academic background, experience, and, as appropriate, knowledge of local conditions such as local language, culture and administrative system and government organization.

54. For detailed processes and conditions please refer to Guidelines Selection and Employment of Consultants by World Bank Borrowers, January 2011, updated July 2014 (Section V – Selection of Individual Consultant).

6.9 Prior Review by the World Bank

55. The Bank shall prior review the following contracts:

- Goods: All contracts more than US$ 1million equivalent;
- Services (Other than consultancy):All contracts more than US$ 1 million equivalent;
- Consultancy Services: Above US$ 500,000 equivalent for firms; and US$ 200,000 equivalent for individuals

56. The Bank shall prior review the first contract package issued by each implementing agency. The PMU/SPMU shall review and ensure that procurement process for the remaining packages are in line with Bank procurement procedure. In addition, PMU/SPIU shall also review the justifications for all contracts to be issued on LIB, single-source up to US$ 30,000) or direct contracting up to US$ 30,000. The Bank will provide handholding support to all the IAs on as and when required basis. These thresholds are for the initial 18 months period and it may be modified based on the procurement performance of the project.

57. **Supervision mission**: In addition to the prior review to be carried out by the Bank office, procurement staff will participate in 2 formal review missions annually, along with the implementation support mission which will include Procurement Post Review (PPR). The Procurement Plan shall set forth those contracts which shall be subject to the PPR. For the avoidance of doubts, the Bank shall be entitled to conduct, at any time, independent procurement reviews of all the contracts financed under the credit. The IA shall prepare a list of contract and submit it to the Bank for conducting PPR. The PPR will be conducted on annual basis.

58. **E-procurement*:*** The procurement of goods works and services shall be carried out using e-procurement platform if agreed by the Bank. The NIC system was assessed and approved by the Bank for its use for all Bank funded projects across all states in India. If the IAs is using e-procurement platform which is not cleared by the Bank, the IAs shall use manual bidding until such time, the e-procurement system is assessed and cleared by the Bank.

59. **Procuremen**t **Planning:** All IAs shall prepare Procurement Plan covering first 18 months of the project implementation. The prior review thresholds will also be indicated in the procurement plan. The Procurement Plan shall be agreed between the Borrower and the Bank before negotiation and shall be subsequently updated annually (or earlier/later, if required) and will reflect the changes in prior review thresholds, if any. All Procurement Plans, their updates or

modifications shall be subject to Bank's prior review and no objection before implementation. In addition, the Bank will carry out an annual ex post procurement review of the procurement falling below the prior review threshold mentioned in table 7 above.

6.10 SEPA

60. An online Procurement Plan Execution System (SEPA) will be adopted to prepare Procurement Plan once the initial Procurement Plan has been agreed. It is a web-based tool owned by the Bank which helps in tracking dates of the different stages of a procurement activity that is planned or under implementation. The system establishes a new, easy to use, and more efficient way for Bank team and the clients to interact, while at the same time providing an audit trail of the process. The procurement plan of West Bengal is already migrated to SEPA system. The Bank will make arrangements to train the staff of IAs in operating SEPA for the remaining States.

6.11 Complaint Handling Mechanism

61. All IAs shall establish complaint handling mechanism to address complaints/grievances from contractors/suppliers more effectively. On receipt of complaints, immediate action will be initiated to acknowledge the complaint and redress within a reasonable timeframe. All complaints during bidding/award stage as well as complaints during the contract execution along with the analysis and response of the PMU/PIU shall invariably be submitted to the Bank for review.

6.12 Anti-Corruption Measures

62. **Disclosure Requirements**: The project shall comply with the disclosure requirements stipulated in the Banks' Procurement Guidelines and Consultant Guidelines, January 2011, revised July 2014. Accordingly following documents shall be disclosed on the project's website (NDMA for PMU and respective SPIUs): (a) Procurement Plan and all subsequent updates; (b) invitations for bids (IFB) for goods; (c) requests for expression of interest (REOI) for selection/hiring of consulting services; (d) short list of consultant; (e) contract awards; (f) lists of contracts following Direct Contracting (DC), Consultant Qualification Selection (CQS), or Single Source Selection (SSS) on a quarterly basis; and (g) action-taken reports on the complaints received on a quarterly basis.

63. The following details shall be published by PMU/SPIU through client connection or sent to the Bank for publishing on their behalf on the Bank's external website and UNDB *online*: (a) General Procurement Notice (GPN); (b) requests for expression of interest for consulting services estimated to cost more than US$ 300,000; and (c) contract award details of all consulting services, with estimated cost of more than US$ 300,000. The project shall also publish on its website any information required under the provisions of disclosure, as specified by the Right to Information Act of India.

Chapter 7: Environment and Social Safeguards

7.1 Overview

1. The NCRMP sub-projects have been already identified. The proposed investments under Component B of the project to create risk mitigation infrastructure include building of multi-purpose emergency shelters, upgrading of roads to provide connectivity to cyclone shelters, underground electric cabling, construction of bridges and strengthening of saline embankments/bunds. These activities are central to the approach and design for environment management and safeguards aspects of the project since they have a potential to create significant or irreversible impacts on natural and physical environment in a coastal area, if not managed appropriately. For such reasons an Environmental and Social Management Framework (ESMF) subject to specific requirements of this project was prepared by the Government.

2. The ESMF, based on the principles of Indian National and State regulations and World Bank policies, will be the guiding document of the Project for environmental and social requirements and procedures, it should be followed by all Project financed activities and contracts, and it will be is available to the public http://ncrmp.gov.in/environment-and-social-management-framework-phase-ii/. The ESMF is an integral part of this Operations Manual and must be referred to in tandem. Below is a summary of its contents.

7.2 Social (including safeguard)

3. The follow up project NCRMP II, sequel to NCRMP I present's similar set of social aspects and issues in terms of scope and range as documented and addressed under NCRMP I. The assessments of NCRMP II in the Project States Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal reveal maximum benefits to project population with minimum safeguard risks. Assessment in Goa will have to be taken up after the sub-projects are identified during project implementation. The project components building/strengthening physical infrastructure cyclone shelters, bunds, habitation connectivity roads provide immediate relief and rehabilitation to the local communities during the periods of natural calamities. The expected social outcomes of the project are decreased vulnerability during calamities from: (i) strengthened physical capital shelter buildings, bunds and habitation connectivity; (ii) increased availability of social infrastructure for different community purposes during normal periods; and (iii) improved safety to the people and the assets; (iv) enhanced disaster resilience of coastal communities with secure public infrastructure and services in the worst affected areas.

4. **Impacts on people and land***:* The inherent safeguard risks posed by the project are as follows: (i) obtaining land in few cases where suitable government land may not be available for building cyclone shelters, rural roads, embankment strengthening, etc; (ii) addressing implementation capacity issues at the state level; (iii) having to apply the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLA&RR 2013), which has come into force from January 1, 2014 for taking private land for project activities; (iv) ensuring community participation in the reconstruction process; (iv) addressing differential impacts of the affected vulnerable/ marginalized families and groups, specifically socially excluded families living in isolated habitations, women headed households, and differently abled persons.

5. Assessments and experience till date from NCRMP I indicates that no private land has ever been acquired for building physical infrastructure under the Project, except one case in Andhra Pradesh. The assessments made under NCRMP II for all sub projects in all the Project States till date also presents requirement of no land acquisition. All the multipurpose cyclone shelters are planned either in the existing school premises or on government lands. The embankments will use the existing alignments and are therefore unlikely to involve additional land requirement except for minor widening/upgradation where required by design. All the rural habitation connectivity roads are proposed are on the existing tracks in general, and restricted to the width as available in the Revenue Records. Consequently the land acquisition under the project is envisaged to be minimal. The adverse impacts, if any will therefore be largely restricted to a modest loss of land and livelihood disturbances for a few people from the construction of new infrastructure at few locations.

6. **Management of Social Risks:** The Project will provide physical infrastructure consisting cyclone shelters, bunds/embankments, habitation connectivity roads. Almost all the works are planned to be taken up using government lands. Wherever small parcels of lands required shelters and for geometric improvements of roads, bunds, those land parcels preferably pursued through voluntary land donation or land purchase. Land will also be acquired through LA and R&R Act, 2013, but will be used sparingly as last resort largely to avoid time overruns. The Bank Operational Policy on Involuntary Resettlement (OP 4.12) has been triggered to deal with involuntary resettlement. OP 4.10 has not been triggered as there are no tribal habitations with unique socio-cultural identity vis-à-vis the mainstream population in the Project locations.

7. NDMA has prepared an Environment and Social Management Framework for the World Bank funded National Cyclone Risk Mitigation Project I (NCRMP I), wherein it was applied and implemented in the two participating states of Odisha and Andhra Pradesh. The same ESMF has now been revised/updated and will be used for the Project States proposed under National Cyclone Risk Mitigation Project II (NCRMP II). The revised document reflects the changes in regulatory requirements/ procedures that have come into effect post-2009 and takes into account the experiences/lessons learnt from the implementation of the first project. The revision/updating has also considered the baseline or existing environmental and social characteristics of the Project states proposed under NCRMP II. The use of this framework will be extended to any additional state/s that may be proposed for inclusion under NCRMP II, with modifications, as and if needed, in line with the nature/type of proposed mitigation works and/or the requirements related to baseline characteristics of the area proposed for coverage.

8. The Social Management Framework of ESMF provides (a) entitlement matrix for mitigating adverse impacts in line with National Acts and World Bank Policies; (b) measures to address the special needs of the vulnerable families, Scheduled Castes communities, single women headed and other vulnerable families; and (c) guidelines for free, prior, and informed consultation with the communities, ensuring community capacity building and participation, grievance redress, information disclosure and monitoring and evaluation. The salient features of the Framework include compensating and assisting the title and non-title holders at replacement cost and R&R assistance along with relocation support for the community/commonly owned properties.

9. **Social screening-** Prior to the preparation of the DPRs the social impacts will be first identified using the screening checklist. If adverse impacts found, full scale SIA and preparation

of RAP will be undertaken. All measures proposed in the RAP to mitigate adverse impacts will be completed before the start of works. Evaluation studies will be undertaken to assess the implementation effectiveness of the R&R measures and their outcomes on the people affected.

10. **Implementation Arrangements:** The Implementation of the ESMF provisions including the RAP is the responsibility of the SPMUs and will be monitored by the SDMA or the nodal department. The web based MIS will be used to monitor and track the implementation of the provisions of the ESMF. The SPIUs will have a nodal Social Development Officer. An orientation workshop on social and environment will be conducted for concern officers in all the Project States. Periodic training programs will be conducted for reorientation on the issues and also to orient the new staff joining the project later.

11. **Social and Gender Inclusion**: In the project all efforts will be made to involve the community of the targeted states as a whole (men, women, youth, differently abled and aged) in risk identification, risk planning and risk management in order to provide a sense of collective responsibility for mitigating the vulnerability and risk. The case of Odisha has demonstrated an effective model of community partnership and ownership of Shelters through the Cyclone Shelter Management & Maintenance Committee (CSM & MC), which have 50% women participation, established around each cyclone shelter that is also responsible for search and rescue, as well as first aid. Similar model will be facilitated in the targeted states under NCRMP –II.

12. **Citizen Engagement Strategy**: The key elements of the citizen engagement strategy for this operation include the following: (i) suo moto disclosure of important project related information by the government on its website and at the appropriate local level under section 4 of the Right to Information Act and disclosure procedures agreed with the Bank, (ii) framework for consultation in the ESMF with the key stakeholders during planning, design and implementation of all sub-projects; (iii) ensuring free, prior, informed consultation with the all community groups and their representatives for obtaining broad community support as a part of preparation of specific sub-projects relevant to that area; (iv) Grievance Redress Mechanisms (GRM) at PIU and SPIU levels to meet specific grievance redress requirements of this operation; (v) promoting community based risk reduction initiatives with the participation of and networking with relevant stakeholders including women, school children, youth, civil society organizations, and local bodies. Details are provided in the ESMF.

13. **Staffing Arrangements for Social Management.** Staffing arrangements for environment management in the project are given below.

- At NDMA/PMU, a Social Management Specialist has been deployed to handle all matters pertaining to social management in the project (for both NCRMP I and II), including activities related to project planning and preparation, supervision, monitoring, evaluation, reporting and documentation. This role of this specialist also includes dealing with matters pertaining to training and capacity building; regulatory clearances; integration of ESMF into project design and contract documents; preparation of ToRs for studies (such as for EA/Independent Audit) and; co-ordination with the participating SDMAs/ SPIUs on Social management/screening/safegaurd activities in the project.
- At the state level, a Social Management Officer (SMO) will be appointed as part of the SDMA/SPIU team, whose main responsibilities will include social screening, consultations

and regular supervision, monitoring and co-ordination of social aspects related to pre-construction, construction and operation stages of the concerned sub-project. The state level Social Management Officer shall also be responsible for data collation and documentation on social aspects of the sub-projects in the state.

- At the sub-project level, the contractor would be responsible for planning, executing and coordinating the implementation of the ESMF provisions as laid out in the contract documents; overseen by the concerned PIU staff.
- During implementation, an 'Independent/Third Party Consultant' would audit/review the implementation of the works in accordance health and safety management provisions set out in the respective contracts.

14. **Grievance Redress Mechanism***:* In the project all efforts will be made by so that the compensation/assistance package for PAF's is decided following the ESMF and in consultation with the community to avoid any dispute. In case of a potential dispute the matter will be brought to the notice of local tehsildar/Sub Divisional Magistrate (SDM). He/she shall hear the case in presence of (a) the affected party, (b) the in charge who is acquiring the land/ in charge of the sub-project activity and (c) sarpanch of the village where the sub-project is being implemented. He/she will try to reach an amicable solution to the issue. However, in case of non-satisfactory solution, the matter will be brought to the notice of the District Collector and he is the final authority to decide the case. The hearing will be attended by all members present for hearing with the SDM as well as the Social Management Specialist of the PMU/PIU. As required certain cases will be referred to a Grievance Redress Committee appointed by the State Steering Committee (SSC) which would examine and address the grievances. The Social Management Specialist from the PIU will be responsible for maintaining a record of the proceedings and the final decisions.

7.3 Environment (including safeguards)

15. The proposed investments under Component B of the project to create risk mitigation infrastructure include building of multi-purpose cyclone shelters, upgrading of roads to provide connectivity to cyclone shelters, underground electric cabling, construction of bridges and strengthening of saline embankments/bunds. These activities are central to the approach and design for environment management and safeguards aspects of the project since they have a potential to create significant or irreversible impacts on natural and physical environment in a coastal area, if not managed appropriately. Activities under other components would focus on multi-hazard risk modeling and assessment, capacity building for Disaster Risk Management; implementation support and other such softer aspects. Any significant or irreversible adverse impact on environment is not envisaged from the implementation of such proposed interventions.

16. **Potential Issues/Impacts**. While the project is expected to benefit the coastal communities in the participating states by reducing their vulnerability to cyclone and other hydro-meteorological hazards through creation of cyclone risk mitigation infrastructure and early warning systems, the proposed investments may have some adverse environmental impacts Since works would be largely carried out in the coastal realms of states that are marked by various degrees of vulnerability and some sensitive environmental features, there are some risks or issues that need to be managed through appropriate planning and upfront care during the site selection

process, particularly in case of sub-projects located close to the shoreline or high tide line influence area or in low lying area/s.

17. Potential adverse impacts on account of activities/works proposed under Component B of the project may include: (i) direct/indirect impacts resulting due to poor site selection for sub-projects (example: salt water intrusion due to inappropriate planning and design of embankments); (ii) impact on the drainage pattern of the area, including impact on coastal flora and/or fauna due to changes in tidal water flow (including endangered fauna); (iii) felling of trees and clearance of vegetation for sub-project construction; (iv) impacts on water resources used by the people; (v) occupational health and safety concerns that may arise during the construction stage; (vi) impacts due to construction material (sand, water, earth, aggregate) sourcing and transportation and; (vii) concerns arising out of improper disposal of debris and other construction wastes.

18. In view of the potential impacts on the environment, Bank's OP 4.01 on Environmental Assessment, OP 4.04 on Natural Habitats and OP 4.11 on Physical Cultural Resources have been triggered, and the project is designated as Category A. On the whole, with proper planning and implementation of management measures, the project interventions are not likely to cause large scale, significant or irreversible damage to natural and/or physical environment.

19. **Overall Environment Management Process.** In order to ensure effective environmental management in a scenario where multiple sub-projects are proposed along different locations in the coastal areas of six participating states and their specific locations are not known at the time of over-all project design, an approach for preparation, application and implementation of an Environment and Social Management Framework (ESMF) has been adopted for the project.

20. 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 revised document reflects the changes in regulatory requirements/ procedures that have come into effect post-2009 and takes into account the experiences/lessons learnt from the implementation of the first project. The revision/updating has also considered the baseline or existing environmental and social characteristics of the participating states (Goa, Gujarat, Karnataka, Kerala, Maharashtra and West Bengal) proposed to be covered under NCRMP II.

21. The ESMF will serve as a comprehensive and a systematic guide covering policies, procedures and provisions, which are being/will be integrated with the over-all project cycle to ensure that the environmental concerns/issues are systematically identified and integrated into the project/sub-project cycle. It guides the integration of environment, health and safety aspects within the decision making and implementation process of various sub-projects. It will also support compliance with applicable laws and regulations of GoI and State Governments apart from meeting the requirements of the relevant Bank policies. The over-all environment management approach for the project under the ESMF includes the following key steps:

i) *Environment screening*, which helps in early identification of key environmental issues at the sub-project level. The screening process forms the first step in the environment management process for the project and has been/is being carried out in parallel with the project identification/engineering feasibility studies for the sub-projects under

consideration for inclusion in the project. Proposed investments have been/are being screened and sub-projects with no significant adverse environmental impact are being identified for implementation under Phase I. The environment screening process for the project has used a robust methodology supported by use of scientific tools such as GIS and remote sensing techniques, which has helped in avoiding environmentally sensitive sites. The results are being collated state-wise in the form of Screening Reports. The process and documentation structure for environment screening exercise was developed under NCRMP I (currently under implementation in Odisha and Andhra Pradesh) and was found to be quite effective in identifying issues early-on even in a scenario where a large number of sub-projects (400+ in each state) were being considered in a single state. Please see Annexure 3 and 4 for Environment and Social screening flowchart and steps.

ii) For sub-projects with a potential for significant adverse environment impacts (as identified from the screening results), an *Environment Assessment* (EA) and *sub-project specific Environment Management Plan* (EMP) will be prepared in accordance to Bank's OP 4.01. The EA will include an assessment of baseline conditions, analysis of alternative options, assessment of potential impacts, identification of mitigation measures and preparation of sub-project specific environmental management plans. However, it is expected that sub-projects with the potential for significant adverse environment impacts will be few in number. These are primarily expected to be limited to strengthening of saline embankments/bunds and underground electric cabling works.

iii) Based on screening results, if a sub-project does not require an EA, the *generic/standard activity-specific EMP*, developed as part of the ESMF, will apply. These generic/standard activity-specific EMPs provide over-all guidance on avoidance, minimization and mitigation measures to be adopted during the planning/selection, design, implementation and operation stages of a sub-project and may be tweaked appropriately to suit the specific conditions in the field/state.

22. **Integration of Environmental Requirements in Bidding Documents.** The considerations/ requirements will be mainstreamed as part of the over-all decision making and execution process. For environment, health and safety requirements to be followed by the Contractor during construction, the requirements in form of conditions/specifications and Bills of Quantities (as required/relevant) will be integrated into the Bidding Documents.

23. **Key Environmental Parameters Considered.** Some of the key environmental parameters/aspects considered in the preparation of the ESMF include - sensitive natural habitats including National Parks, Sanctuaries, Wetlands, Reserved and Protected Forests; trees and vegetation; water resources and their use by people; flooding and water logging/drainage issues; soil resources including erosion and siltation; physiographic conditions; material sources and their requirement (earth, sand, stone, water) for construction; management and disposal of spoils and wastes; pre-dominant land use and; presence of sensitive receptors such as education and health facilities and cultural properties.

24. **Key Environmental Inputs to Selection and Design.** Some specific interventions to reduce environmental impacts that have been integrated into project design and engineering, particularly in terms of selection of sub-project location and prioritization, include the following:

- Use of Environment Screening Results to ensure that no sub-project with any likely possibility of creating significant adverse impact on environment is taken-up without proper study (environment assessment/analysis) – activities/sub-projects without significant negative impacts have been/are being selected for investment in the first phase/year while EA will be carried-out for other sub-projects (such as saline embankments or activities near sensitive environs), which will be part of second phase of investments depending on the findings/ recommendations of such a study about their possible inclusion.
- Use of GIS mapping and remote sensing technology to finalize the exact location of a sub-project – as has been done in both Odisha and Andhra Pradesh under NCRMP I, thereby avoiding significant impacts on natural resources/features of the local area.
- Reuse and disposal of construction debris in suitable pre-identified dumping areas in tune with the local condition to avoid land degradation and water pollution.
- Provision of embankment protection measures in road and bridge works.
- The use of the cyclone shelter in normal (non-emergency/disaster period) times, is being decided in consultation with the community.

25. **Consultation.** Stakeholder involvement mechanisms are/will be central to the design and implementation of the project and provide opportunities for information sharing, consultation and collaboration measures. Guidance for this purpose has been laid out in the Environment and Social Management Framework to ensure proper consultation and involvement of key stakeholders during key stages of sub-project preparation and implementation. As part of the project preparation, extensive public consultation is being carried out to appraise people about over-all project objectives and inform sub-project selection.

26. In accordance with the applicable Bank policies, public consultations at the local level (in areas where specific investments will be made) have been carried out for investments/sub-projects identified so far. The consultation process for the project includes a range of formal and informal on-site discussions, focus group discussions/meetings and targeted stakeholders such as local residents; farmers, roadside and embankment side communities; local bodies like village Panchayats; and selected government departments such as Public Works, Panchayati Raj and Irrigation. The public consultation has been designed in a way that: (i) affected people are included in the decision making process; (ii) public awareness and information sharing on project alternatives and benefits are promoted; and (iii) views on designs and solutions from the communities are solicited.

27. Inputs/feedback on the ESMF and views of the stakeholders on the approach towards minimization/ mitigation of potential negative impacts on people and environmental resources has been sought. Expert opinion on specific issues related to the over-all design/components of the project and applicability of environmental regulations is also being sought during meetings/ workshops. Outputs from this process will be integrated into the project design, where technically feasible. Public involvement and participation process will continue through the project implementation stage as well.

28. **Disclosure-** The draft ESMF document (March 12, 2014 version) has been made public through the Project Authority's website and has also been disclosed at Bank's PIC/Infoshop. The final version was disclosed on October 7, 2014, with a further updated version prepared on February 18, 2015. Other relevant project documents such as screening reports (which also

include documentation from the public consultation exercises), EAs and EMPs will be disclosed on the NDMA and the state websites in line with the requirements of Bank's Operational Policies.

29. **Staffing Arrangements for Environmental Management.** Staffing arrangements for environment management in the project are given below:

- At NDMA/PMU, an Environmental Specialist has been deployed to handle all matters pertaining to environmental management in the project (for both NCRMP I and II), including activities related to project planning and preparation, supervision, monitoring, evaluation, reporting and documentation. This role of this specialist also includes dealing with matters pertaining to training and capacity building; regulatory clearances; integration of ESMF into project design and contract documents; preparation of ToRs for studies (such as for EA/Independent Audit) and; co-ordination with the participating SDMAs on environmental activities in the project.
- At the state level, an Environment Officer (EO) will be appointed as part of the SDMA/Nodal Department's team, whose main responsibilities will include co-ordination with DoEF/other state agencies to obtain regulatory clearances in time and regular supervision, monitoring and co-ordination of environmental aspects related to pre-construction, construction and operation stages of the concerned sub-project. The state level Environmental Officer shall also be responsible for data collation and documentation on environmental aspects of the sub-projects in the state. State level Environment Officers have already been designated in Kerala and Maharashtra.
- At the sub-project level, the contractor would be responsible for planning, executing and coordinating the implementation of the ESMF provisions as laid out in the contract documents; overseen by the concerned line department staff.
- During implementation, an 'Independent/Third Party Consultant' would audit/review the implementation of the works in accordance environmental, health and safety management provisions set out in the respective contracts.

30. **Capacity Building for Environmental Management.** A detailed training plan and modules will be prepared incorporating the short (project specific) and longer term capacity building needs of the SDMA/Nodal Department. The plan will consist of different training modules specific to the needs of various target groups. This will also cover sharing of implementation experience (good practices and lessons learnt) from NCRMP I, where similar works are currently under execution in Odisha and Andhra Pradesh.

31. **Monitoring Mechanism**. The ESMF provides monitoring and evaluation parameters for various sub-project/investment categories and describes the institutional arrangements that would be required to facilitate the 'process' and 'progress' monitoring. Monitoring reports will be prepared by the Nodal Department/SDMA's Environment Officer once in every six months covering all investment categories. A comprehensive report will be prepared by NDMA at mid-term and end-term and this will be shared with the Bank. The Bank's monitoring strategy with regard to application and implementation of ESMF will include: (a) review of various outputs such as screening reports, stakeholder consultation documents, EAs, EMPs, DPRs and Bidding Documents; (b) review of status/quarterly reports and ToRs for various studies/activities; (c) regular participation in supervision missions (once in six months and interim missions, if and as required) and; (d) supporting training and capacity building activities.

Chapter 8: Monitoring and Evaluation

8.1 Overall Project Supervision, Reporting and Monitoring (SRM) Framework

1. The multi-tier implementation arrangements under the project include supervision and monitoring roles and responsibilities of the various players involved in the implementation. Supervision will generally entail routine quality certification of the houses which are to be provided at various stages of construction, forming the basis of payment certification and other works. Monitoring will occur as a periodic function, and will include process reviews/audits, reporting of outputs, and maintaining progressive records. Broad thematic areas that will be supervised and monitored include the following:

I) Social and Environmental Monitoring
II) Regular Quality Supervision & Certification
III) Periodic Physical Progress Monitoring & Third Party Quality Audit
IV) Monitoring and Evaluation (M&E)

2. A summary is provided below:

8.2 Social and Environmental Monitoring

3. This will comprise of the following sets of activities:

a) Monitoring compliance with environmental regulations, social safeguards and Environmental and Social Assessment provisions
b) Overall State-Level Monitoring and Oversight of social and environmental issues at state/project levels.

4. **Regular Quality Supervision & Certification –** This will be carried out by the respective implementing departments, forming the basis of payment certification. Technical supervision staff shall be deployed by the implementing departments.

5. **Periodic Physical Progress Monitoring & Third Party Quality Audit** –Physical progress monitoring will be carried out by the implementing departments on a monthly basis. The SPIUs will carry out monthly surveys in their respective domains (in Goa, Gujarat, Karnataka Kerala, Maharashtra, and West Bengal) to record and report on progress of works. They will also, in coordination with the respective beneficiaries and contractors, identify any constraints and delaying factors. In addition, a third party will be deployed for quality monitoring of works and compliance on social and environmental aspects.

6. **Monitoring and Evaluation (M&E) -** Continuous monitoring of the project, and its achievements would be taken up by the PMU/ SPIU. The PMU/SPIU will also appoint special agencies to assist them.

7. The objectives of the M&E system for the Project will be to monitor Project implementation and to evaluate the Project for continuously feeding into learning during implementation. A key feature of the M&E system will be speedy and efficient Project monitoring using computer network-based MIS, so that a model for the sector can be developed

for state-wide scaling up. The system shall also assist the PMU and SPIU to undertake timely assessments of the decentralized, demand-responsive model of disaster mitigation and management, and identify bottlenecks to intervene appropriately to reduce the risks of lethal effects of disaster.

8. The M&E system will thus aim to:

- Track effectiveness (of processes) to ensure that results comply with Project Development Objectives;
- Track project progress (physical and financial) to determine whether the project is achieving the targets envisaged;
- Track Project Quality to ensure sustainability of the initiatives undertaken by the project;
- Track project quality to ensure sustainability and use feedback to intervene and improve the model towards long term O&M of the assets established and sustainability of the initiatives undertaken in the project.
- Track overall impact of the project; and
- Track Project compliance to social and environment regulations and safety.

8.3 Project Results Monitoring

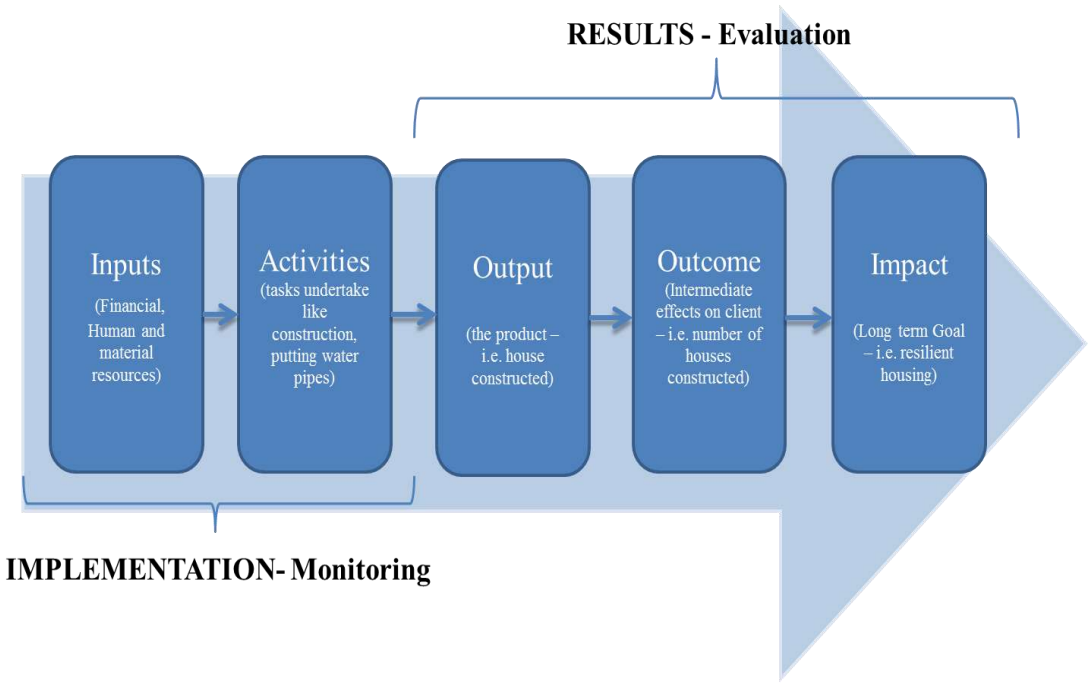


Figure 6: Monitoring and Evaluation process

9. Project Monitoring will be carried out at 3 times;-

i) Initial stage: The first stage will be initiated with baseline surveys, which form the benchmark for the mid-term and final assessment. The sample under the project taluks will be selected through simple random sampling with 'control' villages selected outside the project area. The baseline surveys would draw information

from GIS analysis, existing natural resources, social aspects and data from other sources.

ii) Mid- term assessment: This will carried out so as to co-incide with the mid-time of the project implementation. This will be making use of baseline information as bench mark.

iii) Final assessment: The final evaluation covering quantitative and qualitative assessment of Key Performance Indicators vis-à-vis Baseline data and evaluation of Project Outcomes and suggestions for upstream activities to ensure sustainability.

8.4 Key Project Outcomes Indicators

10. The achievement of the PDO will be monitored by the following indicators:

- Proportion of the targeted coastal population covered by the EWDS.
- Proportion of vulnerable coastal population access to emergency shelters.
- Percentage of coastal population protected by embankment.
- Road communication system to MPCS/villages.
- Intermediate Result Indicators: on Cyclone shelter & committee formed, km of Roads to habitation and MPCS, No./km of Embankment, Bridges, underground cabling etc.
- Capacity building on Hazard Risk Management

Table 8: Results Framework and Monitoring

Country: India

Project Name: National Cyclone Risk Mitigation Project-II (P144726)

Project Development Objectives							
PDO Statement							
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.							
These results are at	Project Level						
Project Development Objective Indicators							
		Cumulative Target Values					
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Proportion of the targeted coastal population covered by the EWDS (Percentage)	TBD						75.00
Proportion of vulnerable coastal population with access to emergency shelters (Percentage)	TBD						30.00
Results of the vulnerability assessment presented to officials of NDMA for	No						Yes

investment planning (Yes/No)							
Results of the comprehensive multi-hazard risk financing strategy for policy making (Yes/No)	No						Yes
Intermediate Results Indicators							
		Cumulative Target Values					
Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Number of R-PACS installed (Number)	0.00						750.00
Number of multi-purpose cyclone and flood shelters completed (Number)	0.00						340
Number of people with access to multi-purpose cyclone and flood shelters built or rehabilitated under the Project (Number - Sub-Type: Supplemental)	0.00						500000
Roads rehabilitated, Rural	0.00						310.00

(Kilometers) - (Core)							
Number of bridges completed under the project (Number)	0.00						13.00
Kilometers of embankments rehabilitated under the Project (Kilometers)	0.00						90.00
Square kilometers protected by embankments rehabilitated by the Project (Square kilometer(km2) - Sub-Type: Supplemental)	0.00						1600.00
Kilometers of HT and LT lines moved underground (Kilometers)	0.00						280.00
Probabilistic risk model for selected areas completed (Yes/No)	No						Yes
Number of training modules on disaster	0.00						8.00

damage assessment implemented (Number)							
Multi-hazard risk assessment for selected areas completed (Yes/No)	No						Yes
Physical structural assessment of lifeline infrastructure completed (Yes/No)	No						Yes
Hydro-meteorological Resilience Action Plans completed (Yes/No)	No						Yes

Table 9: Indicator Description

Project Development Objective Indicators				
Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Proportion of the targeted coastal population covered by the EWDS	Percentage of the targeted population who is aware of EWDS, measured by a household survey. The baseline will be provided by the BME consultant, following the same model as NCRMP I	At mid-term and completion	Monitoring Evaluation consultant report	NDMA
Proportion of vulnerable coastal population with access to emergency shelters	Access is determined by a distance of no more than 2km from locality, accessible by all-weather roads, and with sufficient capacity of the shelter. The baseline will be provided by the BME consultant, following the same model as NCRMP I	At mid-term and completion	M&E consultant report	NDMA
Results of the vulnerability assessment presented to officials of NDMA for investment planning	The results of the vulnerability assessment of lifeline infrastructure will be presented to officials from NDMA in order to inform investment planning	Once, at project completion	Vulnerability assessment produced by consulting firm	NDMA
Results of the comprehensive multi-hazard risk financing strategy for policy making	The results of the comprehensive multi-hazard risk financing strategy will be presented in order to inform policy making	Once, at project completion	Multi-hazard risk financing strategy produced by consulting firm	NDMA
Intermediate Results Indicators				
Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Number of R-PACS installed	Number of Remote Public Alert Communication Systems installed in the participating states. The target number will be determined during	Quarterly	Project monitoring report, based on field supervision	NDMA

	implementation based on the consultant's results.			
Number of multi-purpose cyclone and flood shelters completed	A completed shelter includes the hand-over of a completed shelter to an established and trained community group	Quarterly	Reports from supervision firm	NDMA
Number of people with access to multi-purpose cyclone and flood shelters built or rehabilitated under the Project	Based on vulnerable people, distance to shelters (under 2km), access roads, and capacity of the shelters	Quarterly	Project's quarterly report and supervision firm reports	NDMA
Roads rehabilitated, Rural	Kilometers of all rural roads reopened to motorized traffic, rehabilitated, or upgraded under the project. Rural roads are roads functionally classified in various countries below Trunk or Primary, Secondary or Link roads, or sometimes Tertiary roads. Such roads are often described as rural access, feeder, market, agricultural, irrigation, forestry or community roads. Typically, rural roads connect small urban centers/towns/settlements of less than 2,000 to 5,000 inhabitants to each other or to higher classes of road, market towns and urban centers.	Quarterly	Quarterly reports and supervision firm report	NDMA
Number of bridges completed under the project	Number of bridges constructed under the project	Quarterly	Project's quarterly report and supervision firm report	NDMA
Kilometers of embankments rehabilitated under the Project	Kilometers of embankments rehabilitated under the Project	Quarterly	Project's quarterly report and supervision firm report	NDMA

Square kilometers protected by embankments rehabilitated by the Project	Square kilometers protected by embankments rehabilitated by the Project	Quarterly	Project's quarterly reports and supervision firm report	NDMA
Kilometers of HT and LT lines moved underground	Total number of kilometers of high and low tension lines moved underground by the Project	Quarterly	Project's quarterly reports and supervision firm reports	NDMA
Probabilistic risk model for selected areas completed	The probabilistic risk model is completed and presented to NDMA authorities	Once, at project completion	Consultant's report	NDMA
Number of training modules on disaster damage assessment implemented	Number of training modules implemented by NIDM to state disaster management officials	Quarterly	Project's quarterly report	NIDM
Multi-hazard risk assessment for selected areas completed	The multi-hazard risk assessment financed under Component C is completed and presented to NDMA authorities for decision making	Once, at Project completion	Consultant's report	NDMA
Physical structural assessment of lifeline infrastructure completed	Physical structural assessment of lifeline infrastructure in high risk zones completed and presented to NDMA and MHA for decision making	Once, at Project completion	Consultant's report	NDMA
Hydro-meteorological Resilience Action Plans completed	Hydro-meteorological Resilience Action Plans, financed under Component C, is completed and presented to State Authorities, NDMA, A for decision making	Once, at Project completion	Consultant's report	NDMA

8.5 Monitoring and Evaluation

11. The MIS will track project progress, identify bottlenecks for mid-course correction, and evaluate successful interventions for replication in other areas. A Management Information System (MIS) linking NDMA and the states was developed under NCRMP I for providing regular updates on the project status. The MIS will be adapted for the proposed second phase. The MIS will assist the implementing agencies in consolidation of implementation and feedback data (both from LDs' staff and beneficiary communities or their representatives) in the field, in addition to addressing procurement, safeguards compliance, and physical and FM needs of the project. This system will be further complemented with inputs from TPQA consultants on the quality of the works executed under Component B. Reports generated from this system by the respective PIUs will be consolidated by the PMU for analysis and reporting to appropriate authorities/forums.

8.6 Reporting: Quarterly Progress reports (QPR)

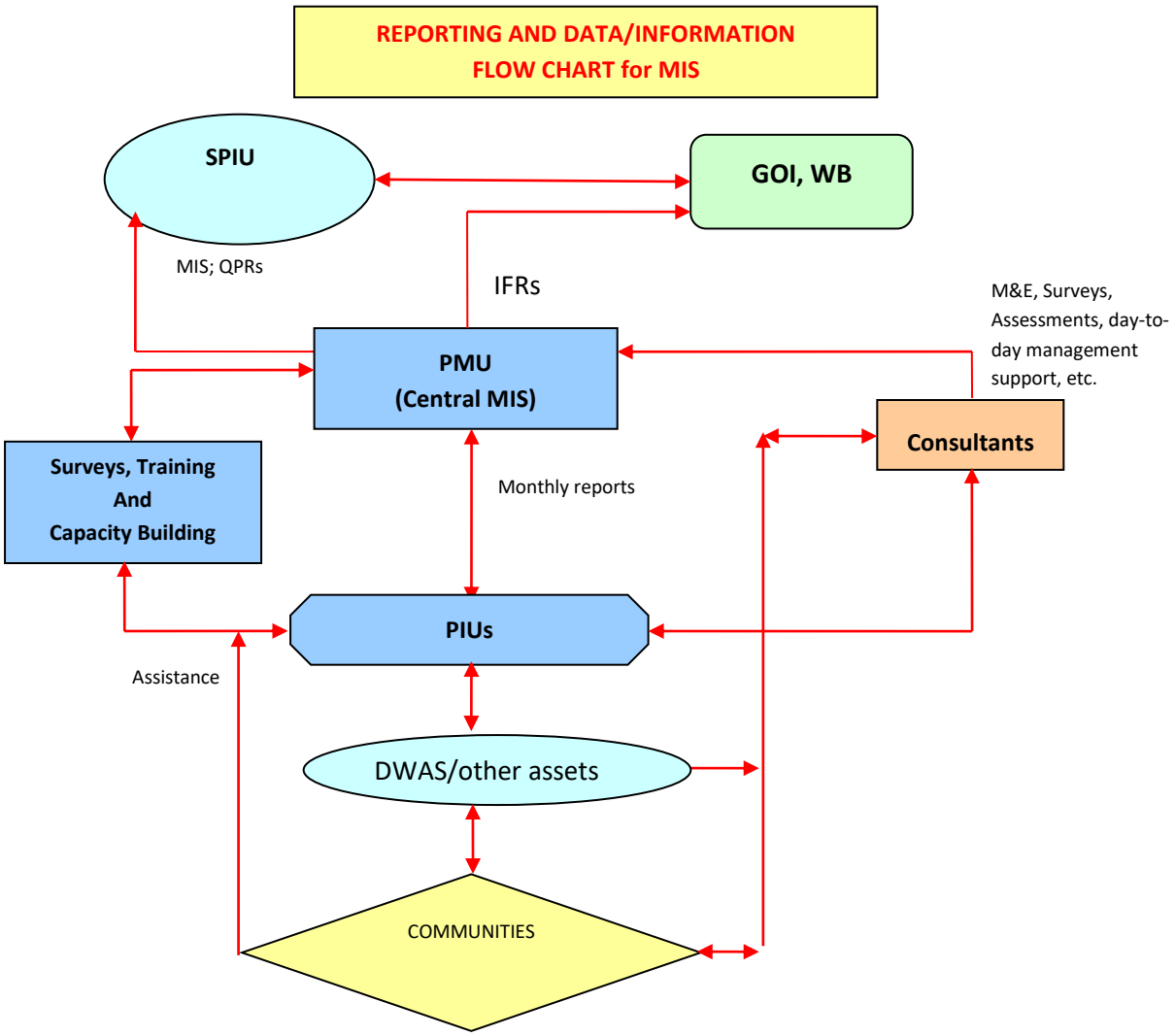
12. QPRs will be the main reporting mechanism which will be consolidated by the PMU centrally and shared with GoI and the World Bank. These reports, covering all operations, will review emerging trends in the Project, and help guide decision-making. They will provide information on the physical and financial progress of the Project, and list the major activities undertaken during the quarter. These reports will be a summary compilation of the different reports generated in performance and process monitoring. Results of impact evaluation, if any in that period, will also be included. Table 10 below outlines the contents of the quarterly progress report.

Table 10: Format of Quarterly progress report

	Proposed Contents of the Quarterly Progress Report
1	Thumbnail sketch of the Project (Project details, Project finance data, Consolidated physical achievement, mapping of installations, Pre- and post-quarter implementation coverage)
2	Executive Summary
3	Cumulative Project coverage and Achievements
4	Financial Performance
5	Pre- and Post-quarter Implementation Details
6	**Component A – Early Warning Dissemination Systems** Installation of EWDS • Individual building information including name, location, identification number, vulnerability quotient and other relevant data • Contracting data for contracts awarded under this components.; ▪ Detailed work methodology for works adopted for intallation ▪ State- wise progress, completion and handing over data; • Quality monitoring and uploading of pictures at various stages of construction; • Mapping of assets in GIS Trainings

	Proposed Contents of the Quarterly Progress Report
	• TORs for individual consultants/ consulting agency for training to be contracted, and/or status • Details about progress report, including reports presented by consultancies.
7	**Component B – Cyclone Risk Mitigation Infrastructure** • Comprehensive report from Goa • Comprehensive report from Gujarat • Comprehensive report from Karnataka • Comprehensive report rom Kerala • Comprehensive report from Maharashtra • Comprehensive report from West Bengal
9	**Component C: Technical Assistance for Multi-Hazard Risk Management** • *Subcomponent C.1: Multi-hazard risk modeling and assessment* • *Subcomponent C.2: Strengthening Emergency Recovery Capacity* • *Subcomponent C.3: Enhancing the Capacity of Disaster Risk Management and Response in Non-Coastal States* • *Subcomponent C.4: Hydro-meteorological Resilience Action Plans* • *Subcomponent C.5: Design of a National Seismic Risk Mitigation Program*
10	**Component D: Project Management and Implementation Support** • Comprehensive report on safeguard compliance • Contract award, physical progress and disbursement status • Annual Action plan • Updated procurement plan

13. **Mid-Term Review (MTR):** To evaluate the project, there will be formal mid-term evaluations of the project. Separate independent evaluations will also be commissioned to examine overall impacts on communities/beneficiary communities in the project area, institutional performance, utilization/performance of assets and other infrastructure established, O&M and sustainability of the assets, governance issues, impact of training and capacity building activities undertaken, and recommend midcourse correction if any required to meet the overall PDO as envisaged.



8.7 Implementation Completion Report

14. At the end of the project, a final evaluation of the project will be conducted. An Implementation Completion Report (ICR) will be prepared by the PMU on their own assessment of the performance of the project which will be incorporated into the ICR prepared separately by the World Bank.

Table 11: Summary of Monitoring Reports

Index	Data Flow		Report Details	Frequency	Inputs
	From	*To*			*From*
A	PMU/PIU	GOI, WB	Quarterly Progress Report	Quarterly	NDMA/ SPIU
B	PMU	SLEC, WB	Project status (physical, financial)	Monthly	PMU/PIU

Index	Data Flow		Report Details	Frequency	Inputs
	From	*To*			*From*
C	PIU	PMU	Project implementation status (physical and financial)	Monthly	PIUs, field staff
D	WB	PMU	Report of Review Mission	Half-yearly	PMU, PIUs, Field visits of Task Team
E	PIU	PMU	Progress of each subcomponent	Monthly	NGOs, PIUs, PIUs,
F	Consultants	PMU	Baseline Survey	One-time	NGOs, PIUs
G	TPQA Consultant	PMU	Process Monitoring	Concurrent	NGOs, PIUs, communities
H	Consultant	PMU	Sustainability Evaluation	Annual	
I	PMU, PIU	WB	Annual Action Plan, procurement plan	Annual	PMU, PIUs
J	PIUs	PMU	Data input into MIS	Fortnightly	PIUs, NGOs, field staff
K	PIUs/consultant	PMU	Training and capacity building	Monthly	Consultant, NGOs, PIUs, Surveys
L	PIUs/consultant	PMU	CBDRM activities	Monthly	Consultant, NGOs, PIUs, Surveys

Annexures

Annexure 1: Component A: EWDS technology

The communication strategy of this NCRMP project aims to cover the early warning dissemination applicable to cyclone and other hydro metrological disasters. An attempt has been made to save the lives and minimize the damages by the mitigation process of early warning dissemination system involving the main stake holders. An integrated technical approach has been considered for early warning dissemination system. All the modern communication technologies have been utilized and integrated. The selected technologies are robust, redundant and can be used for different applications and Groups.

- **Radio Technology:**

a. Digital Two-Way Radio Communication for Authorities/Community.

- Digital Mobile Radio (DMR) Communication.

b. Digital Two-Way Radio Communication Dispatcher at State Emergency Operation Centre & each DEOC. Dispatcher which will carry out the following main functions

- Effectively organize, alarms, controls and monitor digital two-way radio users and groups. It centralizes the handling of calls, short messages and data for users deployed in filled with digital two way radio terminals.
- Dispatcher will have the built-in AVLS (Automatic Vehicle Location System), which will provide reliable communications with field staff.
- It will provide a map based Graphical user interface that will provide real time information of the vehicles location or persons location having digital two way radio terminal.

- **MPLS (Multi Protocol Level Switching) & Broadband-Internet Technology** at State, District and Block/Mandal Emergency Operation Centre-IP Connectivity will further be interfaced with the Digital Radio Communication with the help of IP repeaters. Internet Bandwidth of 5Mbps will be provisioned in addition to MPLS. Internet bandwidth should be taken from alternate service provider.

- **GSM (Global System Mobile) Technology [Group Alert based Message Solution]:**
  This shall send messages in the form of SMS, FAX and Voice messages to pre-determined set of phone numbers. Such Messages will go the State/District/Authorities at Block level/Tehsil/Mandal/Community group Heads/Sarpanch of the village etc. to be finalized by Disaster Management Authorities at National and at State Level. Voice messages can be sent in the local language so that the community can understand the same. Such messages will go the Media Broadcast Stations even which will broadcast the said warnings on the AM/FM Radios and TV.

- **GSM (Global System Mobile) Technology [Location Based Alert Messages]:**
  In case along with sending the message to pre-determined mobile numbers it is sought that location based messages be delivered to the population concerned. That will call for tie-up of government authorities that the mobile operators wherein mobile operators will deliver the said broadcast message to all those who will be present in that location area/cell tower range.

- **Radio/GSM Technology [Siren Alert Solution]:**

  The Alert Sirens which will be installed at Cyclone shelters, Fish Landing centers and at Tourist Sea beaches shall be activated from SEOC.

  The Alert sirens shall also be activated from Mandal HQ (MEOC) as a redundancy path if State to Mandal back bone fails.

  The alert Sirens shall have interface for GSM/ VHF/ Mass messaging etc., for activation from SEOC through GSM/ VHF and Mass Messaging etc.

- **Satellite Technology:**

  - **Satellite Phones**

    A satellite telephone, satellite phone, or satphone is a type of mobile phone that connects to orbiting satellite instead to terrestrial cell sites. They provide similar functionality to terrestrial mobile telephones; voice, short messaging service.

  - **BGAN Terminals**

    The Broadband Global Area Network (BGAN) is a global Satellite Internet Network with telephony using portable terminals. The terminals are normally used to connect a laptop computer to broadband Internet in remote locations, although as long as line-of-sight to be satellite exists, the terminal can be used anywhere. The value of BGAN terminals is that unlike other satellite Internet service which requires bulky and heavy satellite dishes to connect, a BGAN terminal is about the size of a laptop and thus can be carried easily.

    The usage charges of the Satellite phone services and BGAN Services are quite high; hence it is advisable to decide the number of such sets very judiciously.

- **Universal Communication Interface:**

  The UCI shall enable for communication between different technologies like Analog/VHF/HF/TETRA/HAM Radios/DMR /Sat phones/Mobile Phone Mobile Cellular -CDMA/Landline PSTN Telephone / VoIP Telephone. The UCI shall ensure interoperability and Voice conferencing among the above mentioned devices.

Annexure 2: Design Consideration for Multipurpose Cyclone Shelters construction

The cyclone shelter is primarily designed to shelter people and even cattle during cyclone. However it will be utilised as a multipurpose community facility all through the year so as to avoid deterioration of the building by not using it during non-cyclone periods. Therefore, the design consideration will keep in mind its use for multiple purposes such as schools, community centre, public utility building, training centre, marriage halls and others. Constant use of the building for various purposes ensure that it will be maintained at all times and consequently it becomes available during a cyclone which is it main purpose. The following criteria need to be incorporated into the designing of MPCS in the coastal areas:

Performance Criteria

- The cyclone shelters are to designed to serve the population in a radius of 1.5 km from their location. These are to be designed keeping in mind the expected storm surge height at the place where it is to be located.

- To withstand storm surge and wind speed of the locality (180- 220km/h depending on geographical location), adherence to existing codes regarding dead and live loads, soil bearing capacity, space, shape, disable friendliness etc.

- In case of a flood prone area, the design must also keep in mind flood

Design criteria

- If the storm-surge level is 1 meter, then, plinth height for cyclone shelters should be 1.5 meters. In these cases stilts are not required.

- If the storm- surge level is more than 1.5 meters and less than 4.5 meters, then, the plinth should be taken as 1.5 meters and the ground floor should be used as stilt with a height varying from 2.5 meters to 4.5 meters.

- To make use of the space provided as stilt on the ground floor the temporary partitions could be erected and concrete benches could be provided which are easy to maintain and clean after a cyclone.

- Rain water harvesting technique to harvest rooftop rainwater in underground tanks that can be pumped up to overhead tanks for non-drinking uses in the building could be adopted so as to make dwater available to people in the shelter throughout the year and at the time of cyclone/storm-surge.

- An overhead RCC water tank with reasonable storage capacity will be provided over the shelter roof or as an independent tank at an elevated level.

- Adequate toilets and bathing facilities (for men, women and differently abled) will be provided in accordance with the existing government standards and holding capacity

of the shelter. Septic tanks should be provided. Tanks should be properly sealed and roof sufficiently elevated so as to prevent inundation during flooding.

- In general the shelters are in RCC frame with non-load bearing, laterally supported filler walls and deeper foundation on elevated ground so as to avoid submergence of the main structure during cyclonic events. Building specifications which are currently in use and specified in the National Building Code (NBC) will be adopted in all the proposed works.

- For Inner design: Provide storage shelf facilities in every room for accommodating the personal belongings of the occupants

- Doors: Should be opened outwards into a box having four heavy duty stainless steel hinges fixed firmly to the holding.

- Windows: Louver type of window is suggested with non-breakable and non-brittle items made of Fiber Reinforced Plastics (FRP).

- Staircase and Ramp: Need to be located up to first floor level clearly and spacious enough for the movement of the people. The staircases should have a width of 1.5 to 2 m depending on shelter capacity with multi-entry possibilities. 2. Alternatively a ramp with a slope of 1:8 to 1:10 may be considered upto the first floor for carrying physically disabled and elderly people. 3. A staircase of minimum 1.2 m width may be provided from the first floor to the terrace level.

- Emergency Power Supply: Provision for appropriate power back-up facilities such as generator/solar power cells may be made. These should be located above the design surge level. 12 3.

- Emergency Communication: Communication facilities such as wireless radios/walkie-talkies may be provided.

- Community participated Maintenance and Management Committees may be formed for the regular maintenance of the shelter.

Annexure 3: Environment and Social Framework - Screening exercise
Screening

Screening is the first step in the ESMF process. The purpose of screening is to get an overview of the nature, scale and magnitude of the issues in order to determine the scope of the detailed EA and SIA that would be subsequently carried out. After identifying issues, the applicability of the Bank's environment and social safeguard policies is established along with Government of India's regulatory requirements. Based on this, boundaries and focus areas for the EA and SIA along with the use of specific instruments are determined.

Key Steps involved in Project Screening (as per ESMF of NCRMP –II)

The key steps involved in the screening process are briefly outlined below.

Step 1: Ascertain presence of any environmentally sensitive areas as detailed in screening criteria section Part-B and w.r.t. CRZ zones during site identification.

Step 2: Confirm applicability of regulations and whether any of the sub-projects are prohibited as per the existing law / regulations in the proposed sites. Wherein the proposed activity is restricted, Step 1 needs to be performed again.

Step 3: Conduct reconnaissance site visits for ground truthing to incorporate additional information.

Step 4: Revisit the screening check list and ascertain outcomes of the Part B (2) and Part C (2) of the screening checklist. Undertake the detailed screening process for all investments in consultation with the line department.

Step 5: Determine the requirement of an EIA / SIA study & its scope and other applicable rules /regulations and clearances.

Step 6: If EIA/SIA is required, then:
Step 6.1 Prepare ToR for EIA / SIA studies and appoint Environment and Social Management Consultants.
Step 6.2: Conduct EIA / SIA as per the scope defined in the ToR along with preparation of the detailed DPR documents.

Step 8: Check for applicable NOC / Clearances from MoEF/ State PCB's etc as applicable

Step 9: Ensure integration of GEMP and / or Specific EMP measures (as applicable) with bid documents and contract provisions.

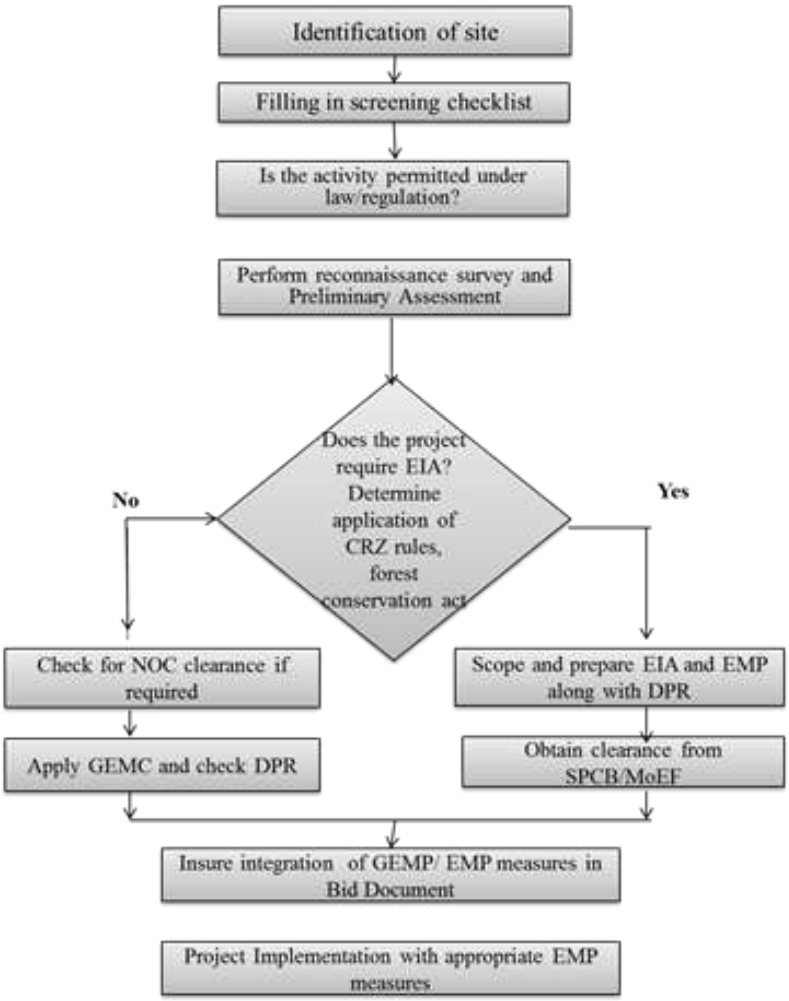
Step 10: Project implementation and monitoring to ensure EMP / GEMP implementation.

- Note 1: It is necessary that the PIU and Line Departments have detailed topographic maps of all the proposed sub project sites with CRZ zones identified along with details of

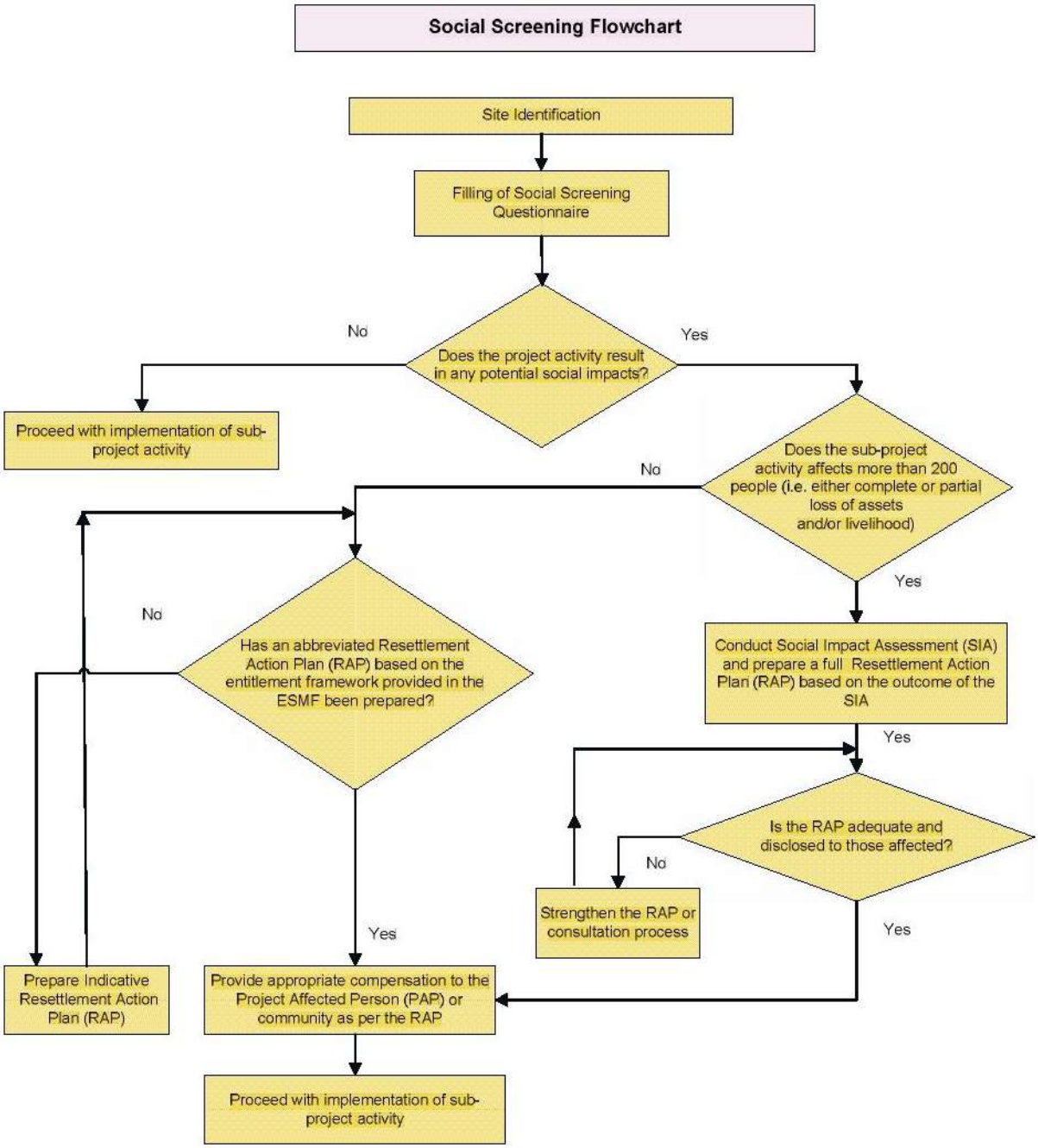
ecologically sensitive areas, habitat areas, Reserve Forest, Wildlife Sanctuary at a suitable scale to undertake the screening tasks.

- Note 2: It is advisable to have a meeting with all the Line Departments and the concerned officials of the State Environment & Forest Department and agencies like the Pollution Control Board before starting the process to gain a better understanding of the clearance process.

The outcome of the screening process will help prioritize the various investments and where required, start the clearance process in a timely manner e.g. project sites (in particular requiring Forest Clearance etc.) wherein clearance process is expected to take longer duration can be sequenced / phased later in overall project implementation but the clearance process for such sites is initiated at the start of the overall project. This shall help ensure that no sub projects are dropped merely due to delay in the clearance procedures. **The environmental and social screening flowcharts depicted below illustrate the overall screening process**.



Environment Screening Flow chart


Social Screening Flowchart
Site Identification
Filling of Social Screening Questionnaire
Does the project activity result in any potential social impacts?
No
Yes
Proceed with implementation of sub-project activity
Does the sub-project activity affects more than 200 people (i.e. either complete or partial loss of assets and/or livelihood)
No
Yes
Has an abbreviated Resettlement Action Plan (RAP) based on the entitlement framework provided in the ESMF been prepared?
No
Conduct Social Impact Assessment (SIA) and prepare a full Resettlement Action Plan (RAP) based on the outcome of the SIA
Yes
Is the RAP adequate and disclosed to those affected?
No
Strengthen the RAP or consultation process
Yes
Prepare Indicative Resettlement Action Plan (RAP)
Yes
Provide appropriate compensation to the Project Affected Person (PAP) or community as per the RAP
Proceed with implementation of sub-project activity

Annexure 4: Comprehensive Social Assessment Format

1. **Land Requirement for the sub-project:**

Details	Unit	Quantity
Government Land	Acres	
Private Land	Acres	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	

2. **Agricultural Land affected due to sub-project:**

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Agricultural Land	Number	

3. **Dwellings affected due to sub-project:**

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Dwellings	Number	

4. **Commercial properties affected due to sub-project:**

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Commercial Properties	Number	

5. **Common Property Resources Affected: (Please give each type by number)**

Type	Unit	Quantity
	Number	
	Number	
	Number	
	Number	
	Number	

S No	Items	Results
1.	Total no of HH affected due to proposed project activity (Single or multiple impacts)	
2.	Total no of vulnerable HH affected due to proposed project activity (Single or multiple impacts)	
3.	Total number of Community Property Resources affected	

Part b : Result/Outcome of Social Screening Exercise		
1.	No SA Required	
2.	SA Required	

For Road and Bridges:

1. Land Requirement for the sub-project:

Details	Unit	Quantity
Government Land	Acres	
Private Land	Acres	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	

1. Agricultural Land affected due to sub-project:

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Agricultural Land	Number	

2. Dwellings affected due to sub-project:

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Dwellings	Number	

3. Commercial properties affected due to sub-project:

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	

BPL Families losing Commercial Properties	Number	

4. Common Property Resources Affected: (Please give each type by number)

Type	Unit	Quantity
	Number	
	Number	
	Number	
	Number	
	Number	

S No	Items	Results
6.	Total no of HH affected due to proposed project activity (Single or multiple impacts)	
7.	Total no of vulnerable HH affected due to proposed project activity (Single or multiple impacts)	
8.	Total number of Community Property Resources affected	

Part b: Right of Way Table (A table giving the availability of government land on both sides of centre line of the road need to be presented at every 100 m interval for the entire road and certified by the concerned Superintending Engineer. ADD rows for subsequent chainages, until end of road / bridge.)

S.No.	Chainage, km	Government Land from Centre line of Road		Proposed Road Base Width		Additional Land Requirement		Remarks
		Left	Right	Left	Right	Left	Right	
1	0.000							
2	0.100							
3	0.200							
4	0.300							

Part c : Result/ Outcome of Social Screening Exercise		
1.	No SA Required	
2.	SA Required	

Annexure 5: Communications Strategy

1. The NCRMP –II is multi-sectoral by nature. It is spread over a wide geography and has a large number of beneficiaries. A communication strategy would enable a 1) better understanding of the project; 2) broader engagement of the community/beneficiaries and 3) greater transparency and accountability thereby creating a basis for concerted action.

2. It is beneficial to have a multi-track communication process (a one-way and/or a two-way process) at three levels i.e. the State, District and Panchayat/ Village level. The communication process/ methodology will be used for the project as a whole

3. A designated communication specialist will sit in the SPIU/Project Direct office at the State level. The specialist will be the focal point to coordinate and disseminate information from the State to the Districts. The specialist will assist the SPIU/ PDO/ Grievance redressal committees to tackle issues and keep the project process transparent. The Social Specialist from the SPIU will also be responsible for maintaining a record/documentation of community consultation/proceedings and the final decisions.

4. The following Table 1 outline the communication methodologies used at each level and the target audience. These methodologies are detailed below.

Table #: Communication Methodologies at different levels

Levels	Theme/ Projects	Communication Methods	Targeted Group	Time Line
Village / Panchayat level	EWDS Training Multi-purpose cyclone shelters Roads and Bridges Embankment/ Underground cabling	• Bulletin Board • Local Newspapers • Radio • Construction onsite boards • Informal stakeholder interaction • Trainings	Beneficiaries	On-going
District level	EWDS Training Multi-purpose cyclone shelters Roads and Bridges Embankment/ Underground cabling	• District Websites • Local Newspapers • Trainings/Technical Support	Youth, Beneficiaries, NGO/CBOs, PIUs, Bank Managers, Technical Engineers	On-going
State level		• State level Workshops • Newspaper/ Journalists • Video conference • State Website		August 2015

Communication Methods:

i. **One-day Meetings**

a. **A State-level Launch Meeting** could be scheduled at the commencement of the NCRMP wherein a brief overview of the project, its components, and the public disclosure of the Housing Policy would be undertaken. It would be a one-day meeting at the State level. This could be chaired by the Additional chief secretary along with the concerned Secretaries, Implementing agencies and the State Media.

b. **Round Table**/ NGO workshop could be organised at the State level by the PIU/ Project Directors office wherein the Government of Uttarakhand, Implementing Agencies and the NGO/CSO to brief them on the project, the objective, spread of the project and the targeted outcomes. The Round Table will also be the venue where the Housing Policy could be shared.

c. **Video Conference (VC):** Video Conference (VC) can be undertaken bi-monthly or quarterly for the first two years of the project. The VC would be a face-time between the PD, Project Manager, line departments and the District Magistrates (DM) of the project areas. The VC would be beneficial as it will enable quick communication between the project districts, help track progress, address issues and problem and assist in cross district learning's.

ii. **Use of Local Multi-Media**

a. **Print/ Newspapers:** A comprehensive Press- kit (information about the project, housing policy and photographs) will be compiled by PIU/ Project Director's office and given to State-level Journalists with information regarding the infrastructure components of the projects i.e. Public buildings, Roads and Bridges and Urban flood management infrastructure. These press kits could also be distributed during the State-level Launch Meetings. The newspaper segments/ clippings will be posted in the District and State websites.

b. Website: Information on government activities, updated damage reports, site selection process in the project districts, disbursements, status of completion of components, brochures and other communication materials, complaints received and addressed, etc. shall all be put up in each district websites, MIS and State website in both English and the local language.

c. **Radio:** Production of a 15-20-minute radio program or **jingle** on "Critical Infrastructure" that would be designed by an internal or externally hired communication specialist, within the Program Directors office/ PIU. The developed short messages will be transmitted once every day during the initial stages of the project via the local radio station in the region. The program would detail out the following topics:

- The Objective of the project and construction of Multi-purpose Cyclone Shelters
- Explaining beneficiary participation and commitments in managing MPCS
- Dial-in option, Q &A discussions and answering listener's letters could be incorporated within the program.

iii. **Bulletin Boards: B**ulletin boards that are situated at the District offices of the project intervention areas will be used to disseminate information regarding the disaster recovery process. Information and Communication materials, made by the communication specialist in the Project Director's office will be placed on the board in the local languages.

iv. **Information on-site boards/ Construction site boards:** These boards will carry information regarding the nature of construction on site – Cyclone shelters, or link Roads/ Bridges, Embankments or Underground cabling. The information site boards will carry information with effect to the details of construction cost, project plan, start date, end date, inspection dates and others.

v. **Transect Walk:** A transect walk is suggested along the proposed road alignment within the communities prior to finalizing the reconstruction of village roads. **This is usually undertaken when constructing new roads.** The transect walk shall involve the community and undertaken by the Implementing Agencies (IA)/ PWD in co-ordination with the Gram Panchayat at the village level. The transect shall enable the IA to quickly learn about the social structure, issues pertaining to land, social impact, soil, land use, community assets, and to triangulate data already available. The IA will inform the PRI at least a week in advance of the transect walk. This intimation would be in the form of a formal notice put up on the bulletin board at the Village Panchayat building. The transect walk will help with the following issues and can be organized as follows –

- Provide information on the project i.e. at least 25 copies of the PMGSY handouts, describe the salient features of the project, include a description of the proposed improvements, land width required, and the provisions of the resettlement framework.
- Collect the village revenue map from the Patwari and mark the suggested alignment. The lists of landowners along the suggested alignment are to be identified from the revenue records.
- The PRI is to select a group of villagers (Key Informants i.e. School Teachers, Community Leaders, Women Representatives of SHGs etc.) who have a good knowledge regarding the physical resources of the village, and who are willing to participate in the transect walk.
- On the basis of the Village Revenue Map, the route to be followed for the transect walk is to be discussed with the PRI representatives.
- On completion of the walk, an illustrative diagram of the transect walk is to be prepared using information already gathered and will be cross-checked by the community. On finalization of the information a formal plan will be drawn by the PWD for approval and implementation work.
- The process of the transect walk, discussion with the community and outcomes will be documented and presented with the formal plan to the PMU.

Annexure 6: Grievance Redressal Mechanism

The Project:

1. The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones and other hydro meteorological hazards in the coastal States/UTs of India.The component B will be implemented by the State identified Implementation Units, supported by the State Project Implementing Unit (SPIU), under the aegis of PMU-NDMA for NCRMP -II.

The Grievance Redress Mechanism and Structure:

2. The established GRMs of the regional government and relevant PIUs shall be upgraded with guidelines agreeable to the Bank as Senior and Filed level GRMs at PMU and PIU levels. In case of land acquisition, there is a multi-layered GRM with the LA-Collector, District Collector, Revenue Divisional Commissioner, and Finance Commissioner (Department of Revenue) responsible for hearing and resolving grievances relating to the award of compensation. The Committee for Acquisition through Private Negotiations is constituted by the Deputy Collector of the concerned District, elected Member of the Legislative Assembly, District Superintending Engineer, Executive Engineer concerned, and District level officer of the intending department, and the Chairperson of the relevant Notified Area Council.

3. The Project will have district level GRMs will be the second level GRM, chaired by the District Collector or her/his nominees, and PIU representatives.

4. At the SPIU level, the Project Steering committee shall be the highest body to entertain and resolve appeals against decisions of lower GRMs. The Project Implementing Entity has an online GRM helpline which will also entertain grievances relating to the project.

Functions of GRCs

5. The grievances may relate to acquisition of land or resettlement, provision of any other assistances or services promised by the Project, any other issues affecting the beneficiaries or people in the affected villages.

6. The Level 1 GRC will receive all complaints from beneficiaries covered under their ambit. All unresolved complaints at level 1 shall be discussed and resolved within 3 days of the GRC meeting. All complaints at level 1 requiring resolution at higher level shall be forwarded to level 2 immediately. The level 2 GRC all unresolved complaints at level 1 shall be discussed and resolved within 3-5 working days. All unresolved complaints at level 2 requiring resolution at higher level shall be forwarded to level 3 immediately. The level 3 GRC will discuss on regular basis all unresolved complaints at level 2 and shall resolve complaints within 3-5 working days of their receipt either from beneficiary or level 2.

7. Acknowledge ***and follow up:*** The GRC should establish a clear timetable/time frame for acknowledging receipt of complaints, and standards for providing periodic updates to complainants

on the progress of actions being taken. The timetable should be disseminated/ communicated to the Project Community areas and all offices involved, various stakeholder groups, in order to enhance transparency and accountability.

Scope of GRC

8. The GRC will receive and redress all complaints and grievance that relate to the Project that are formally brought to the GRC in writing or through other means as suggested under Registration Mechanism for Complaints in this document. The complaints and grievance could be made by individuals and group of individuals who have a grievance under the Project. The complaints/grievance could relate among others, to: (i) land acquisition, (ii) selection of sites for Multi-purpose cyclone shelters; (iii) payment of compensation and resettlement assistance in accordance with social impact mitigation and eligibility criteria as set out in ESMF.

9. ***Grievance Redress Service of the World Bank***: In addition to seeking to resolve their grievances through the GRM established at the government level, "communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project such as this operation may also submit complaints to the Grievance Redress Service (GRS) established by the World Bank. The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may also submit their complaint to the WB's independent Inspection Panel, after having brought the complaint to the World Bank's attention through its GRS. Information on how to submit complaints to the World Bank's Grievance Redress Service is available at http://www.worldbank.org/GRS. Information on how to submit complaints to the World Bank Inspection Panel is available at www.inspectionpanel.org.

Registration Mechanism for Complaints

10. Name, Office Address, Contact number and email id of each of the SDMs in affected districts shall be communicated to all the beneficiaries. The beneficiaries can register complaints in following ways:

a. By written and sent through ordinary post addressed to concerned Block Development officer at the Block level/ Collector at the District level of their area.
b. Online through the national and state portal
c. By calling a Helpline number.

Processing and Redressing Complaint/ Grievances

- **Complaint registration and redressal systems must be made clear and communicated** prior to establishing the GRC within the project areas. Including a timeframe for processing the complaint. It is important that the beneficiaries are provided with a description of the Grievance Redressal Mechanism process. The Grievance Redressal Mechanism shall be communicated to the beneficiaries through the use of a formally **drafted communication strategy** as specified in the Operational Manual. This will include use of print and electronic media. Pamphlets with complete information will be distributed to the beneficiaries at the village, block and district level. Posters will also be posted at DM office and Gram Panchayat office.

- **Complaints are treated confidentially**. Files are kept confidential. Publishing / sharing information about the complaint cannot be traced to the individual complainant.

- **Complaints should receive an acknowledgement receipt or** complaint number as a token to having submitted a complaint. This receipt would also receive a date on which his/her complaint will be processes or address. He/she would also attend the open house meeting wherein the complaints grievance will be addressed.

- **All complaints –Written or electronic- received will be fed into a complaint register/ Google Spread sheet** by a point person appointed by the SDM or SDM. This spreadsheet can be viewed by all levels including PMU. The complaint register will be supervised and monitored by the PMU.

- **When closing the complaint**, agreement should be made with the complainant on remedy, and both parties sign to their approval of the case being closed and outcome accepted. Copies are kept in both hard copy and electronic (please see documentation of Grievance process) by both parties.

Documentation and Record keeping requirement

11. The GRCs at each level will maintain one Grievance Register that would document the information on each grievance received either through email or post. A registration id shall be given to each grievance registered.

12. The GRCs at each level will maintain and feed the following Grievance Register (Google spreadsheet or other) that would, among others, help with monitoring and evaluation of the functioning of GRCs but also to document the processes of GRCs.

Complaints/Grievances Register: (1) Serial Number; (2) Case Number; (3) Name of Complainant; (4) Gender; (5) Name of Father/Husband; (6) Full Address of the Complainant; (7) Main complaint/grievance; (8) List of documents attached; (9) History of Previous complaint/grievance, if any (10) Date of receipt of complaint/grievance and (11) Date of acknowledgement of complaint/grievance (12) Date of hearing; (13) Decision of GRC at that level; (14) Key agreements/commitments (15) Date of closing of complaint/grievance; (16) Whether appealing to next level – yes or no

13. The grievance redress process will be a continuous, transparent and participatory process that would be an integral part of the project's accountability and governance agenda. The GRC at each level will maintain the above mentioned Registers. The GRC at each level will also keep a separate case file for each complainant/grieved persons in which all complaint/grievance related documents will be kept. The PMU-R&RD will also prepare periodic reports on the grievance redress on the basis of reports received from the three levels.

Annexure 7: Draft ToRs for Staffing

SPIU Staff:

These specialists must be incorporated to the SPIU at the earliest, and can be either deputed or hired from the market:

a) Procurement Specialist
b) Social Development Specialist
c) Environment Specialist
d) Financial Management Specialist
e) MIS Specialist
f) IT/GIS Specialist
g) ExecutiveEngineer

Sample/ draft TORs

A. Procurement Specialist

DRAFT ToR FOR PROCUREMENT SPECIALIST
Location: NCRMP –II focus state
Reporting to: SPIU Project Director
Objective: The Procurement Specialist will be responsible for the overall coordination of all procurement related project activities to ensure that the related Project objectives are achieved within the time schedule and within the financial plan.
Scope of Work/Tasks: • To prepare year-wise procurement plan for the project to ensure efficiency and get it approved from PMU and monitor/update the same regularly. • To provide procurement support during project preparation; • To assist all implementing agencies and staff in procurement capacity building activities including support during procurement assessment and procurement system development. • To prepare operational guidelines on concepts, policies and procedures of procurement for all levels; • To prepare guidelines for negotiating and resolving difficult procurement issues with agencies particularly bidding and award issues; • To design capacity building modules for procurement professionals in implementing agencies at levels on approach to procurement, as well as on specialized procurement topics. • To prepare a range of procurement-related documents and reports; • To develop a strong web- based procurement management system in coordination with the M&E Specialist and IT Consultant and to analyse management related information for improving efficiency and effectiveness of service delivery in the project. • To co-ordinate with all implementing agencies, SPIU, and the World Bank in general and with task counterpart in the WB Team. • To be fully conversant with all aspects of project implementation activities and to be responsible for timely reporting to the Project Director. • To ensure publication of the procurement plan on the PIU/PMU website. • To ensure that procurement under the project is conducted in accordance with the procedures

and timetables as approved by the PMU. • To invite expressions of interest (EOI) for consultancy assignments through advertisements in newspapers and/or through e-procurement system, to coordinate for the evaluation of the EOI and finalization of shortlist • To support the SPIU in procurement matters, especially on technical matters, such as preparation of technical specifications, preparing all types of advertisements, bidding documents, letters of invitation, expression of interests, preparing RfP documents, draft contracts, evaluation reports, etc., in the procurement of goods/works/ equipment/consultancies/trainings/services etc. • To maintain up-to-date and accurate procurement records for each project component. • To prepare and submit procurement progress reports periodically for the review of the Project Director. • To handle procurement related grievances/complaints received by the SPIU as per guidelines. • To be responsible for any other related task/tasks assigned by the Project Director.
Profile: • Should have a post graduate degree either in M.B.A.(Fin.) or M.B.A.(Supply Chain Mngmt.) M.M.M. or a B.Tech./B.E. or M.Tech./M.E. degree from a recognized university or a Chartered Accountant. • At least 5-7 years of direct relevant work experience as Procurement Specialist; • Good knowledge of all concepts and principles of and approaches to procurement, and of public procurement systems followed by the state Government. Knowledge and understanding of technical, commercial and legal aspects of procurement at all phases; • Strong communication skills in presenting, discussing and resolving difficult issues and proficiency in English and Hindi languages (Or state specific language); • Knowledge and experience in e-procurement and procurement MIS.

B. Social Development Specialist

DRAFT ToR For SOCIAL DEVELOPMENT SPECIALIST
Location: NCRMP –II Focus State
Reporting to: SPIU Project Director
Objective: The SDS will be responsible for overseeing the social management process and application of social safeguards for the project.
Scope of Work/Tasks: • Analyze social risks and social issues and integrate these into the planning and implementation of the project activities. • Carry out social screening and prepare social action plans; • Prepare community participation plans for planning and implementing public building and/or livelihood strengthening activities at the village/ community level; • Review and clear public building plans and livelihood training plans prepared in consultation with beneficiaries by the community development officers and community mobilisers; • Work with the design engineers to review gender and differently abled sensitivity incorporated in designs and modules. • Undertake field visits periodically, hold supervision meetings with the community mobilisers to plan and monitor participatory aspects of the project components; • Coordinate with NGOs, field Staff, Consultants, and contractors and guide them in addressing social inclusion and equity issues with reference to resettlement, needs of special populations such as scheduled caste and tribal groups, and gender issues.

• Monitor the implementation of the Social Management Plans / Resettlement Action Plans and assess and ensure their compliance with the Environment and Social Management Framework • Coordinate with relevant line departments to ensure compliance with social safeguards • Review the periodic progress reports prepared by CDOs and independent monitoring reports prepared by the TPQA and supervision consultants on the preparation and implementation of social plans and plan and implement remedial measures as necessary • Prepare and implement training and capacity building plans of the staff to address social issues associated with the project. • Interact with the Social Development Specialist of the World Bank on social and environmental management activities of the project. • Review and clearance of Social sections of DPRs • Review and approve the contractor's Implementation plan with the Supervision Consultant for the social measures, as per the ESMF • Liaise with the various central and state government agencies on social issues, including process for land acquisition/donation and other regulatory matters • Assist the Supervision consultants in establishing dialogue with the affected communities and ensure that the social concerns and suggestions from such interactions are incorporated and implemented in the project • Prepare periodic (monthly, quarterly, and annual) report and document good practices and lessons learnt for dissemination within the Government and externally • Ensure relevant social indicators are reflected and updated into the MIS • Any other relevant activity designated by the Project Director to ensure proper implementation of the project components.
Profile: • Post graduate in Social Work/ Rural Management/ Development Studies. • At least 8 years' experience in community development, community mobilization, resettlement, disaster management, gender and rural development. Experience in disaster management will be a plus • Conversant with the participatory tools such as PRA, micro-planning, participative monitoring and evaluation in community development, public building and watsan and rehabilitation activities. The candidate should be well versed with the socio-economic conditions of beneficiaries and should be able to communicate in the local language • Previous professional work experience in the state and work in the World Bank/ADB assisted projects shall be considered favorably. • Fluency in both oral and written English and Hindi/State language

C. Environment Specialist

DRAFT ToR FOR ENVIRONMENT SPECIALIST
Location: NCRMP –II Focus State
Reporting to: SPIU Project Director
Objective: Responsible for planning and coordinating environmental management activities, concerning all the environmental aspects of the sub-projects.
Scope of Work/Tasks: • To act as the primary person responsible for ensuring that the environmental components of the EMP are properly integrated into the project implementation • Review and clearance of Environmental sections of DPRs

• Review the preparation of necessary Environmental Assessments and Environmental Management Plans for the project • Carry out the necessary processes at field level for environmental clearances, including CRZ • Liaise with the various line departments and agencies on environmental and other regulatory matters • Continuously interact with line department, TPQA contractors, and community groups to be involved in the project to ensure environmental considerations and incorporated in project design and implementation • Prepare Environmental due diligence reports as necessary • Review and approve the contractor's Implementation plan with the TPQA for the environmental measures, as per the ESMF • Review the environmental performance of the project through site visits and assessment of the periodic environmental and social reports submitted by contractors • Provide support and assistance to the Government Implementing Agencies and the World Bank to supervise the implementation of the ESMF during the construction as well as operation stage of the project • Report to the Project Director on the Environmental aspects pertaining to the project • Prepare periodic (monthly, quarterly, and annual) report and document good practices and lessons learnt for dissemination within the State and externally • Any other relevant activity designated by the Project Director to ensure proper implementation of the project components.
Profile: • Post Graduate in Environmental Science or B.Tech in civil/ related field • Minimum 5 years of experience in handling the environmental issues of infrastructure projects preferably for externally funded projects • Proficiency in computer skills including experience of MS Word, Excel, Project, and GIS • Fluency in both oral and written English and Hindi/State language • Priority will be given to candidates with experience in disaster risk management.

D. Financial Management Specialist

DRAFT ToR FOR FINANCIAL MANAGEMENT SPECIALIST
Location: NCRMP –II Focus states
Reporting to: SPIU Project Director
Objective: Responsible for financial management and reporting as per the agreed guidelines for the project
Scope of Work/Tasks: • Compliance with finance management procedures of the NCRMP. • Overseeing the preparation of the NCRMP budget and any revisions thereto • Reviewing and approving the financial progress report. • Preparing sanction orders requesting for release of funds along with the required supports • Authorizing the processing of invoices for 3rd parties. • Maintenance of the books of accounts. • Appointment of internal auditor for NCRMP. • Ensure submission of external audit reports for the NCRMP. • Submission of Utilization certificates and expenditure statements to NDMA and to Project Director at agreed intervals; • Ensure intern audit for the project accounts ae carried out in time and the same is submitted to

NDMA. • Other duties as assigned
Profile: • CA (Inter)/M.Com/B.Com with at least 5 years of experience • Working with Government departments and in the field related to the terms of reference will be desirable; • Should possess good working knowledge of computers, and have expert knowledge in working in Tally. • He/she should have good accounting skills in computerized as well as manual accounting. • The candidate should be proficient in English and Hindi/State language. • The Accounts Officers and Accountants may be brought under deputation from AG, State Government Departments/ Government undertaking with relevant field experience.

E. MIS Specialist

DRAFT ToR FOR MIS SPECIALIST
Location: NCRMP –II Focus states
Reporting to: SPIU Project Director
Objective: Responsible for managing and updating the MIS system and database.
Scope of Work/Tasks: • To coordinate NDMA's M&E specialist, IT consultant for designing and developing web-based MIS system for the project, in line with the NCRMP II MIS managed by NDMA. • To develop MIS reporting format and link procurement, grievance redress mechanism and other project components • Ensure responsibilities for updating data on the MIS are properly assigned and reflected in the Operational Manual. • To design and undertake capacity building activities for MIS using staff at various levels • Coordinate with the IT/GIS Specialist in the production of maps and other geo referenced reports as needed by the Project • To assess effectiveness of data collection and communication as well as undertake appropriate measures to improve the effectiveness • To carry out regular checks and maintain accurate, easily accessible and high quality data/information to relevant stakeholders at all times • To design and implement processes and systems that ensure data management reports are produced, shared for both internal and external stakeholders • To further develop the MIS system and its reporting capabilities as a tool for the DRM sector to ensure that data is accurate and triangulated across the MIS • Any other relevant activity designated by the Project Director to ensure proper implementation of the project components.
Profile: • M. Tech/B.Tech. in computer Science/ B. Tech IT,or MSc IN Statistics with sound knowledge of computer and IT or equivant. • Minimum 5 years of experience in handling the environmental issues regarding restoration and reconstruction projects preferably for externally funded projects • Proficiency in computer skills including experience of MS Word, Excel, Project, and GIS • Fluency in both oral and written English and Hindi(Or state specific language)

• Priority will be given to candidates with experience in post-disaster reconstruction projects, and working in cyclone and Flood prone areas.

F. IT/GIS Specialist

DRAFT ToR FOR IT/GIS SPECIALIST
Location: NCRMP – II Focus States
Reporting to: SPIU Project Director
Objective: Responsible for overseeing the development and maintenance of Project IT systems including the Project's website, and provide GIS solutions for planning and monitoring
Scope of Work/Tasks: • To coordinate with MIS specialist for designing and developing web-based MIS system for the project in line with NDMA's MIS for NCRMP II. • Provide GIS maps and related geo location information for DRPs • Assisting in the creation of maps as necessary for project reports • Update PMU on new/emerging information and communication technology and recommend appropriate system upgrades at all levels • To design and undertake capacity building activities for staff at various levels on IT tools and systems • To allocate system storage, plan future storage requirements and to control and monitor user access to the database system • To coordinate with national and state authorities with regards to policies regarding production, maintenance, sharing, and use of GIS products • To ensure all relevant GIS products are made available to the public, as necessary • To design and implement processes and systems that ensure data management reports are produced, shared for both internal and external stakeholders • Any other relevant activity designated by the Project Director to ensure proper implementation of the project components.
Profile: • M. Tech/B.Tech. in computer Science/ B. Tech IT, or MSc IN Statistics with sound knowledge of computer and IT or equivalent. • Minimum 3 years of experience in information systems management and GIS products and software • Fluency in both oral and written English and Hindi/State language

G. Executive Engineer

DRAFT ToR FOR EXECUTIVE ENGINEER
Location: NCRMP –II Focus states
Reporting to: SPIU Project Director
Objective: Ensure technical soundness of all infrastructure interventions under the project
Scope of Work/Tasks: • Responsible for overseeing the technical / engineering aspect of project financed infrastructure, including designs, contract management, and supervision • Ensure that the project is implemented following the agreed guidelines and documentation requirements • Monitor and report project progress on periodic basis • Identify and help resolve specific issues that arise during implementation at field level • Coordinate with line ministries' engineers, Project technical firms and consultants, and the World Bank on technical/engineering aspects of project financed infrastructure

• Take adequate quality control steps at the field implementation. Review and ensure the project achieves its desired objective qualitatively • Make extensive travel to the field locations and help in implementation and provide consolidated periodic reports. • Organize appropriate training and capacity building for relevant project stakeholders • Identify issues, highlight and troubleshoot project related issues in consultation with the line ministries and TPQA • Any other relevant activity designated by the Project Director to ensure proper implementation.
Profile: • Masters / Graduation in Civil Engineering. • 15 years of proven experience in management of infrastructure design and construction • Proven experience in management of civil contract management. • Familiarity with working and functioning of externally funded projects. • Proficient in English and Hindi/Local language. • Priority will be given to candidates with experience in disaster risk management and infrastructure in coastal areas.

Annexure 8: Interim Financial Report (IFR) Formats

National Cyclone Risk Mitigation Project II
Format - 1
Quarterly Interim Financial Reports
Report as on xx-xx-xxxx (Date)

(Amount in Rs. Lakhs)

Particulars	For the Quarter	Cumulative	
		Financial Year till date	Project till date
Opening Balance of Funds(A)			
Receipts			
State Government Funds			
Government of India Funds			
Other receipts/income			
Total Receipts (B)	-	-	-
Total Sources (C = A + B)	-	-	-
Expenditures by Component			
A. Early Warning Dissemination to Coastal Communities			
A.1 - EWS			
A.2 - Community mobilization and training			
Total	-	-	-
B. Cyclone Risk Management Infrastructure			
B.1 - Cyclone Shelters			
B.1.1 Construction of Cyclone Shelters			
B.1.2 Cyclone Shelter Management Cost (Corpus Fund by state governments)			
B.2 - Roads and Bridges			
B.2.1 - Roads to cyclone shelters & habitations			
B.2.2 - Connecting roads			
B.2.3 - Bridges			
B.3 - Repair and Up-grade of Saline Embankments			
B.4 - Underground cabling			

Total	-	-	-
C. Techcnial Support for Multi-Hazard Risk Management			
C.1 - Multi-hazard risk modeling and assessment			
C.2 - Strengthening Emergency Recovery Capacity			
C.3 - Enhancing the Capacity of Disaster Risk Management and Response in Non-Coastal States			
C.4 - Hydro-meteorological resilience action plans			
C.5 - Design of a national seismic risk mitigation program			
Total	-	-	-
D. Project Management and Implementation Support			
D.1 - Incremental Operating Cost			
D.2 - Technical Assistance Cost			
Total			
Grand Total of Expenditures (D)			

Advances given in the current quarter (E)	
Advances adjusted in the current quarter and considered in the expenditure components above (F)	
Closing Balance of Funds (G = C - D - E + F)	-

Notes:
(a) Only shaded cells can be modified or data be entered therein
(b) If report is for the quarter ended on June 30th, it should provide information on expenditure for the period of April to June and forecast for the period July to December
(c) Closing Balance will be as per Project Books of Account, as on date of the report
(d) Forecast is to be provided seperately for each component
Certified that above figures are as per books of account maintained by the implementing entity

Signature
Head of Finance PMU

National Cyclone Risk Mitigation Project II
Format - 2
Quarterly Interim Financial Report

Report as on xx-xx-xxxx (Date)

(Amount in Rs. Lakhs)

			Cumulative			
Particulars	**For the Quarter (Components A,C&D)**	**For the Quarter (Component B)**	**Financial Year till date (Components A,C&D)**	**Financial Year till date (Component B)**	**Project till date (Components A,C&D)**	**Project till date (Component B)**
Expenditures by Implementing Entity						
1. National Disaster Management Authority						
2. National Institute of Disaster Management						
3. Gujarat						
4. Maharashtra						
5. Kerala						
6. West Bengal						
7. Karnataka						
-						
8. Goa						
-						
Total Expenditures (D)	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**

Error calculator (Difference from Format - 1)	**-** **-** **-**

National Cyclone Risk Mitigation Project II
Format - 3
Quarterly Interim Financial Report
Report as on xx-xx-xxxx (Date)

(Amount in Rs. Lakhs)

		Total	Components A,C&D (WB share 100%)	Component B (WB share 75%)
Expenditure for the quarter		-	-	-
World Bank Share of the above		-	-	-
Bank Funds received till date	I			
Total Project Expenditure till date	II	-		
World Bank Share of the above	III	-		
Funds Unutilized (I - III)	IV	-		

Notes:

(a) Total Project Uses till date ' II ', will be the same as Grand Total of Expenditure ' D ' as per Format I, Column 4

NCRMP II - Reporting format

Attachment 4

Payments Made During Reporting Period Against Contract Subject to the World Bank's Prior Review

Contract Number	Supplier	Contract Date	Contract Amount	Date of World Bank's No Objection to Contract	Amount paid to supplier during period	World Bank's share of amount paid to supplier during the period