

**INDIA
COASTAL DISASTER RISK REDUCTION PROJECT (CDRRP)**

**TAMIL NADU
ENVIRONMENTAL AND SOCIAL MANAGEMENT
FRAMEWORK (ESMF)**

FINAL

MARCH 2013.

**PROJECT MANAGEMENT UNIT,
GOVERNMENT OF TAMIL NADU (GoTN)**

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List of Abbreviations and Acronyms

APL	Above Poverty Line
ASI	Archeological Survey of India
BC	Backward Caste
BOQ	Bill of Quantities
BPL	Below Poverty Line
CBDRM	Community-Based Disaster Risk Management
CDRRP	Coastal Disaster Risk Reduction Project
CRZ	Coastal Regulation Zone
DPR	Detailed Project Report
DRR	Disaster Risk Reduction
DWAS	Disaster Warning Announcement System
EA	Environmental Assessment
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
ESA	Environmental and Social Assessment
ETRP	Emergency Tsunami Reconstruction Project
FIMSUL	Fisheries Infrastructure Management and Sustainable Livelihoods
GIS	Geographic Information Systems
GoPY	Government of Puducherry
GoTN	Government of Tamil Nadu
GP	Gram Panchayat
GRC	Grievance Redress Committee
HT	High Tension
HTL	High Tide Line
IA	Implementing Agency
ICZMP	Integrated Coastal Zone Management Plan
IGA	Income Generating Activity
LA	Land Acquisition
MoEF	Ministry of Environment & Forests
NGO	Non Governmental Organization
OBM	Out Board Motor
OH	Overhead
OHS	Occupational Health and Safety
OP	Operational Policy
PAF	Project Affected Family
PAP	Project Affected Person
PIU	Project Implementation Unit
PMU	Project Management Unit
PRI	Panchayat Raj Institution
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
RRC	Resettlement & Rehabilitation Committee
PY	Puducherry
SC	Scheduled Caste
SDMA	State Disaster Management Agency
SHG	Self Help Group
SPCB	State Pollution Control Board
ST	Scheduled Tribe
TN	Tamil Nadu
UG	Underground
VRCC	Vulnerability Reduction of Coastal Communities

Executive Summary

Background

Tamil Nadu nestles the southernmost tip of peninsular India, bound by the Bay of Bengal on the eastern coast and the Indian Ocean on the southern. With a 15.6% rise in population over the past decade, Tamil Nadu is now the seventh most populous state in India with a total of 72 million inhabitants. Over 50% of the State's population lives in the densely packed coastal districts, including approximately 9 million people in the capital of Chennai. The human capital of these areas is also remarkable, as three of the top districts in literacy rankings are located along the coast.

These coastal areas not only harbor high numbers of people, they are also the economic hub of Tamil Nadu. As of 2012, the state possesses the second largest economy in India and ranks as the second most industrialized state in the country, with a per capita GDP of US\$1,622. Various economic activities along the coast, including fishing, agriculture, tourism, shipping, and industry, are important drivers of the overall state economy. Fishing alone provides livelihoods to about 200,000 families. In particular, with its long coastline of 1,076 km and its 3 major and 17 non major ports, Tamil Nadu has the capacity to handle almost one quarter of container and one about fifth of India's total cargo traffic.

Project Development Objective

Reducing the vulnerability of coastal communities to a range of hydro-meteorological and geophysical hazards such as cyclones, storm surges, floods, tsunamis etc.; through building resilient infrastructure, enhancing livelihood and coastal risk management capacity of stake holders and improving the Recipient's capacity to respond promptly and effectively to an eligible crisis or emergency.

Project Description

Component 1: Vulnerability Reduction

The objective of this component is to reduce the vulnerability of coastal communities through infrastructure such as permanent houses, evacuation shelters and routes, and resilient electrical networks.

Subcomponent 1.1 (Resilient Housing) - Construction of 14,349 multi-disaster resistant houses was commenced in ETRP, across 11 coastal districts. This would be completed by the Rural Development & Panchayati Raj Department under the project. The component will also provide relocation benefit during the period of reconstruction of houses and a 10 year insurance for houses against natural hazards.

Subcomponent 1.2 (Evacuation Shelters, routes and Early Warning Systems) - In multi-hazard prone coastal Tamil Nadu access to evacuation shelters would save

lives. This infrastructure has been sorely inadequate in Tamil Nadu. This component includes construction of about 120 Multipurpose Evacuation shelters, installation of about 440 early warning systems and laying out evacuation routes with signage. Designs were completed during ETRP and works are now being tendered.

Subcomponent 1.3 (Cyclone Resilient Electrical Network) - Coastal electrical infrastructure, primarily the transmission and distribution which is over ground, is prone to high winds, rains, thunderstorms, storm surges and flooding. Cuddalore and Nagapattinam towns have been identified for laying the underground electrical network.

Component 2: Sustainable Fisheries

The fisheries sector provides livelihoods to a large community of fisher-folk and a much larger population engaged in fishing related activities. Fishery dependent communities are the most vulnerable to natural disasters, climate change and the degradation of the marine environment. The objective of this component is to address gaps in the context of a long term vision for the Fisheries sector. The component aims at upgrading infrastructure, developing an approach for co-management of fisheries and address seas safety aspects.

Subcomponent 2.1 (Fishing Infrastructure) –This subcomponent, as part of the earlier ETRP, consists of seven works. These include construction of two fish landing centers, reconstruction and modernization of two fishing harbors, providing permanent opening of two river bar mouths and establishing one tube ice plant. In addition two additional infrastructure projects as part of the CDRRP; the reconstruction and modernization of a fish landing centre and of a fishing harbor.

Subcomponent 2.2 (FIMSUL – II) - Based on lessons from the FIMSUL, activities will include putting into practice, key reforms for the marine fisheries sub-sector in Tamil Nadu and Puducherry, particularly around co-management. It will implement a local reform process that will support improved performance in the marine fisheries sub-sector, characterized by more sustainable flows of social and economic benefits to coastal fisheries communities, and a healthy marine environment. Provision of a wireless communication system keeping in mind the safety of fishermen will also be undertaken. In addition linkages with the Global Environment Facility's (GEF), Bank implemented Areas Beyond National Jurisdiction (ABNJ), Bank led Global Partnership for Oceans (GPO) Program and FAO's Technical Cooperation Program (TCP) will be established for providing technical support for the implementation of the activities to Fisheries Department's PIU.

Component 3: Capacity building in Disaster Risk Management and Coastal Zone Management

This component will focus on strengthening the capacity of Government institutions, civil society, the school education system and coastal communities through four sub-components: (i) strengthening of State Disaster Management Authority, (ii) Community Based Disaster Risk Management Program (CBDRM), (iii) curriculum development on disaster risk reduction for schools and training institutions, and (iv) completing preparation of the ICZM plan for Tamil Nadu.

Component 4: Implementation Support

This will include incremental operating costs, that of operating the Project Management Unit (PMU) and respective Project Implementation Units (PIUs) in the line departments. In addition, the component will include consultancies required for the preparation and supervision of specific activities, trainings, exposure visits and knowledge exchange programs.

Component 5 – Contingent Emergency Financing-

Following an adverse natural event that causes a major natural disaster, the respective governments may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the government of Tamil Nadu and/or Puducherry to request the Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of an emergency.

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

The total project cost is US\$ 335.4 million. Of which, US\$ 272.4 million is apportioned for TN.

Purpose of Environmental and Social Management Framework (ESMF)

The objectives of the ESMF are the following:

- * Enhance positive and sustainable environmental and social outcomes associated with Project implementation;
- * Support the integration of environmental and social aspects associated with the numerous subprojects into the decision making process;
- * Support displaced persons in their efforts to restore their livelihoods and living standards and compensate any loss of livelihood or assets;
- * Enhance positive environmental and social outcomes;
- * Minimize environmental degradation as a result of either individual subprojects or their cumulative effects;
- * Protect human health;
- * Minimize impacts on cultural property.

Implementation of the ESMF will also support and assist with the achievement of compliance with applicable laws and regulations and with relevant Bank policies on environment and social development issues.

Social Safeguards and Resettlement Management

The ESMF includes a Resettlement Policy Framework (RPF), which will act as guide for mitigating and managing the negative social impacts that would be triggered by the sub-projects under CDRRP. This RPF comprises the following aspects: (a) Land Acquisition, (b) Categories of Project Affected Families (PAFs), (c) Entitlement Matrix, (d) Grievance Redress and (e) Consultation. Apart from the World Bank's Safeguard Policy on Involuntary resettlement (OP 4.12), the framework has been developed based on the following policies/ legislations: (a) The Land Acquisition Act 1894, (b) The National Policy on Resettlement and Rehabilitation for Project Affected Families, 2007 and (c) The Right to Information Act 2004. The primary objective of this RPF is to provide better standard of living to the project affected persons or at least restore their standard of living to that of before project. If the affected persons belong to Below Poverty Line (BPL) category before the project, then this RPF aims to bring them Above Poverty Line (APL). In the RPF, there is the resettlement entitlement matrix which defines how the different social impacts will be addressed in terms of mitigation and compensation.

Environmental Legal Requirements

The sub-projects being taken up under the CDRRP will have to be consistent with the applicable laws of Government of India. It is the responsibility of the Implementing Agency to ensure that project activities are consistent with the regulatory/legal framework, whether national, state or municipal/local. The key environmental legislation that is applicable includes (a) Environmental Impact Assessment Notification 2006, and (b) CRZ Notification both of which are under the Environmental Protection Act.

Bank's Safeguard policies & Project Categorization

The following Bank's safeguard policies are triggered in CDRRP:

Environment

- * OP/BP 4.01 Environmental Assessment
- * OP/BP 4.11 Physical Cultural Resources

Of the three environmental safeguard policies, OP/BP 4.11 Physical Cultural Resources is triggered only due to the sub-project related to heritage buildings in Puducherry. This is not relevant or applicable in the context of Tamil Nadu.

Social

- * OP/BP 4.12 Involuntary Resettlement

As the nature and scale of the impacts are minor, temporary and fully reversible, the CDRRP is classified as “**Category B.**”

Stakeholder / public consultations and disclosure

At the project-level, stakeholder consultation workshops were conducted in mid-March 2013. The salient feedback obtained during this workshop is as follows:

None of the stakeholders expressed major environmental and social safeguard concerns.

For all the sub-projects that are being retroactively funded, stakeholder consultations were carried out during the preparation of various sub-projects, to : (a) obtain a better understanding of the potential impacts; (b) appreciate the perspectives/concerns of the stakeholders; and (c) secure their active involvement during finalization of EMPs. Further consultations will be conducted for the new sub-projects as a part of the design and implementation, or through a sub-project ESA process. In all, consultations will be done as a part of the ESA process or fully integrated with the design & implementation or both.

The draft ESMF of CDRRP, the sub-project ESAs and associated regulatory clearances have been duly disclosed in the project web site at <http://www.tn.gov.in/tsunami/> on March 12, 2013 and also in the web sites of project implementing agencies. .

Copies of the ESMF and ESAs are also available with the PMU, the various Implementing Agencies and District Collectorates of each of the 13 coastal districts. The translation of the executive summary is also available in local language (Tamil) at the above web sites, PMU, various implementing agencies and the collectorates of each of the 13 coastal districts.

Key ESMF actions

The following table indicates key ESMF actions against each of the sub-projects to be implemented under CDRRP in TN.

No.	Title / Description	ESMF Status / Actions
<i>Component 1: Vulnerability Reduction</i>		
(i)	Construction of multi-disaster resistant permanent houses	Implementation of the generic EMP will be continued for the houses under construction. For the additional houses to be constructed, CRZ clearance will be obtained. Generic EMP after obtaining Bank's concurrence will be integrated with the bid / contract documents. EMP monitoring and reporting will be a part of the overall project monitoring.

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No.	Title / Description	ESMF Status / Actions
(ii)	Evacuation Routes and Evacuation Shelters	Implementation will be continued in line with the CRZ clearances already obtained. EMP developed through ESAs carried out in ETRP after obtaining Bank's concurrence will be continued. EMP monitoring and reporting will be done as a part of the overall project implementation. Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.
(iii)	Early Warning Systems	To address possible minor environmental impacts, a generic EMP will be prepared and integrated with the bid / contract documents, after obtaining Bank's concurrence. EMP implementation, monitoring and reporting will be done
<i>Component 2: Sustainable Fisheries</i>		
(i)	Fishery harbors	All clearances – MoEF, Forest and CRZ – were obtained. The remaining implementation will be done in line with these clearances. EAs were done by the design consultants, for both the sub-projects (Pazhyar and Nagapattinam) during ETRP with detailed field investigations and stake holder consultations. EMP was integrated with the contract documents, after obtaining Bank's concurrence to the EAs / EMPs. EMP implementation, monitoring and reporting will be continued. Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

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No.	Title / Description	ESMF Status / Actions
(ii)	Bar mouths	<p>CRZ clearances were obtained. The remaining implementation will be done in line with these clearance requirements. EAs were done by the design consultants for both the sub-projects (Uppanar and Vellar) during ETRP with detailed field investigations and stake holder consultations. EMP was integrated with the contract documents, after obtaining Bank's concurrence to the EAs / EMPs. EMP implementation, monitoring and reporting will be continued as a part of the overall project implementation.</p> <p>Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.</p>
(iii)	Fish landing centres	<p>CRZ clearances were obtained. The remaining implementation will be done in line with these clearances. EAs were done by the design consultants for both the sub-projects (Nagore and Portnova) during ETRP with detailed field investigations and stake holder consultations. EMP was integrated with the contract documents, after obtaining Bank's concurrence for the EAs / EMPs. EMP implementation, monitoring and reporting will be continued as a part of the overall project implementation.</p> <p>Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.</p>
(iv)	Tube ice plant-cum-chilling room	Generic environment management measures are being implemented

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Environmental and Social Management Framework (ESMF)

No.	Title / Description	ESMF Status / Actions
(v)	Additional Fisheries Infrastructure	Detailed ESAs will be carried out for each sub-project by the PIA with the help of design consultants. The ESA will be shared with Bank for review and clearance and all necessary clearances – as required by regulations – either Forests or EA or CRZ or all, will be obtained. As a part of the ESA, EMP / RAP (as needed) will be prepared and integrated with the bid / contract documents. EMP /RAP implementation, monitoring and reporting will be done. Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.
(vi)	Implementing FIMSUL Reforms	Integration of environmental and social concerns will be addressed as a part of the policy and capacity-building initiatives.
<i>Component 3: Strengthening Risk Reduction & Response Capacity</i>		
(i)	Community Based Disaster Risk Management Program (CBDRM)	Environmental and social safeguard concerns will be suitably integrated in all the training and capacity building CBDRM initiatives.
(ii)	Curriculum development for disaster risk reduction in schools and training institutions	Environmental and social safeguards as well as climate change issues will be integrated.
(iii)	Strengthening the State Disaster Management Authority (SDMA)	Environmental and social safeguards capacity will be integrated on a need basis.
(iv)	Developing a State Integrated Coastal Zone Management Plan	Environmental and Social safeguard issues will be considered and mitigated appropriately during the implementation of ICZMP.
(v)	Underground Electricity / Powers Cables	ESA will be carried out for the sub-project(s) by the PIA and suitable EMP(s) / RAP (as needed) will be developed and implemented, after obtaining Bank's concurrence. This EMP will also integrate OHS issues. This EMP will also be integrated with the bid / contract documents. EMP / RAP monitoring and reporting will be done as a part of the overall project implementation. Any social displacement – temporary or permanent – will be dealt as per the Resettlement Entitlement Framework. Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

Implementation Arrangements

PMU will co-ordinate the preparation and implementation of CDRRP as well as the ESMF activities. PMU will include one Environmental Management Specialist and one Social Management Specialist to co-ordinate the environmental and social / resettlement activities under the CDRRP respectively. Three IAs – the Rural Development Department, Fisheries and TN Electricity Board – will have engineers and officers dedicated to manage the environmental and social safeguard issues as required at the state and district level. In co-ordination with these IAs, the two PMU Specialists will undertake the monitoring and reporting, training and capacity building and conducting the ESMF audits both at the sub-project level and at the project level. The budgetary requirements for ESMF implementation will be included in the overall operational budget of the PMU, which is covered under the Implementation Support Component and sub-project specific EMP implementation costs will be integrated in the Bill Of Quantities (BOQ) of the respective sub-projects.

1 Introduction

1.1 Project Background

Tamil Nadu nestles the southernmost tip of peninsular India, bound by the Bay of Bengal on the eastern coast and the Indian Ocean on the southern. With a 15.6% rise in population over the past decade, Tamil Nadu is now the seventh most populous state in India with a total of 72 million inhabitants. Over 50% of the State's population lives in the densely packed coastal districts, including approximately 9 million people in the capital of Chennai. The human capital of these areas is also remarkable, as three of the top districts in literacy rankings are located along the coast.

These coastal areas not only harbor high numbers of people, they are also the economic hub of Tamil Nadu. As of 2012, the state possesses the second largest economy in India and ranks as the second most industrialized state in the country, with a per capita GDP of US\$1,622. Various economic activities along the coast, including fishing, agriculture, tourism, shipping, and industry, are important drivers of the overall state economy. Fishing alone provides livelihoods to about 200,000 families. In particular, with its long coastline of 1,076 km and its 3 major and 17 non major ports, Tamil Nadu has the capacity to handle almost one quarter of container and one about fifth of India's total cargo traffic.

1.2 Project Objective

The project development objective of the proposed Coastal Disaster Risk Reduction Project (CDRRP) is to *reduce the vulnerability of coastal communities to a range of hydro-meteorological and geophysical hazards such as cyclones, storm surges, floods, tsunamis etc.; through building resilient infrastructure, enhancing livelihood and coastal risk management capacity of stake holders and improving the recipient's capacity to respond promptly and effectively to an eligible crisis or emergency.*

1.3 Project Description

Component 1: Vulnerability Reduction

The objective of this component is to reduce the vulnerability of coastal communities through infrastructure such as permanent houses, evacuation shelters and routes, and resilient electrical networks.

Subcomponent 1.1 (Resilient Housing) - Construction of 14,349 multi-disaster resistant houses was commenced in ETRP, across 11 coastal districts. This would be completed by the Rural Development & Panchayati Raj Department under the project. The component will also provide relocation benefit during the period of reconstruction of houses and a 10 year insurance for houses against natural hazards.

Subcomponent 1.2 (Evacuation Shelters, routes and Early Warning Systems) - In multi-hazard prone coastal Tamil Nadu access to evacuation shelters would save lives. This infrastructure has been sorely inadequate in Tamil Nadu. This component includes construction of about 120 Multipurpose Evacuation shelters, installation of about 440 early warning systems and laying out evacuation routes with signage. Designs were completed during ETRP and works are now being tendered.

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The fisheries sector provides livelihoods to a large community of fisher-folk and a much larger population engaged in fishing related activities. Fishery dependent communities are the most vulnerable to natural disasters, climate change and the degradation of the marine environment. The objective of this component is to address gaps in the context of a long term vision for the Fisheries sector. The component aims at upgrading infrastructure, developing an approach for co-management of fisheries and address seas safety aspects.

Subcomponent 2.1 (Fishing Infrastructure) – This subcomponent, as part of the earlier ETRP, consists of seven works. These include construction of two fish landing centers, reconstruction and modernization of two fishing harbors, providing permanent opening of two river bar mouths and establishing one tube ice plant. In addition two additional infrastructure projects as part of the CDRRP; the reconstruction and modernization of a fish landing centre and of a fishing harbor.

Subcomponent 2.2 (FIMSUL – II) - Based on lessons from the FIMSUL, activities will include putting into practice, key reforms for the marine fisheries sub-sector in Tamil Nadu and Puducherry, particularly around co-management. It will implement a local reform process that will support improved performance in the marine fisheries sub-sector, characterized by more sustainable flows of social and economic benefits to coastal fisheries communities, and a healthy marine environment. Provision of a wireless communication system keeping in mind the safety of fishermen will also be undertaken. In addition linkages with the Global Environment Facility's (GEF), Bank implemented Areas Beyond National Jurisdiction (ABNJ), Bank led Global Partnership for Oceans (GPO) Program and FAO's Technical Cooperation Program (TCP) will be established for providing technical support for the implementation of the activities to Fisheries Department's PIU.

Component 3: Capacity building in Disaster Risk Management and Coastal Zone Management

This component will focus on strengthening the capacity of Government institutions, civil society, the school education system and coastal communities through four sub-components: (i) strengthening of State Disaster Management Authority, (ii) Community Based Disaster Risk Management Program (CBDRM),

(iii) curriculum development on disaster risk reduction for schools and training institutions, and (iv) completing preparation of the ICZM plan for Tamil Nadu.

Component 4: Implementation Support

This will include incremental operating costs, that of operating the Project Management Unit (PMU) and respective Project Implementation Units (PIUs) in the line departments. In addition, the component will include consultancies required for the preparation and supervision of specific activities, trainings, exposure visits and knowledge exchange programs.

1.4 Project Cost Estimate

The total project cost is US\$ 335.4 million. Of which, US\$ 272.4 million is apportioned for TN and US\$ 63 million is allotted for PY.

1.5 Objective of Environmental and Social Management Framework (ESMF)

The objectives of the ESMF are the following:

- Enhance positive and sustainable environmental and social outcomes associated with Project implementation;
- Support the integration of environmental and social aspects associated with the numerous subprojects into the decision making process;
- Support displaced persons in their efforts to restore their livelihoods and living standards and compensate any loss of livelihood or assets;
- Enhance positive environmental and social outcomes;
- Minimize environmental degradation as a result of either individual subprojects or their cumulative effects;
- Protect human health;
- Minimize impacts on cultural property.

Implementation of the ESMF will also support and assist with the achievement of compliance with applicable laws and regulations and with relevant Bank policies on environment and social development issues.

1.6 Legal Requirements

The sub-projects being taken up under the CDRRP will have to be consistent with the applicable laws of Government of India and Government of Tamil Nadu. It is the responsibility of the Implementing Agency to ensure that project activities are consistent with the regulatory/legal framework, whether national, state or municipal/local. The key environmental legislation that are applicable includes (a) Environmental Impact Assessment Notification 2006, and (b) CRZ Notification both of which are under the Environmental Protection Act. (Annexure 1 for a list of applicable environmental legislation.)

1.7 Bank's Safeguard policies & Project Categorization

The following Bank's safeguard policies are triggered in CDRRP:

Environment

- OP/BP 4.01 Environmental Assessment
- OP/BP 4.11 Physical Cultural Resources

Of the three environmental safeguard policies, OP/BP 4.11 Physical Cultural Resources is triggered only due to the sub-project related to heritage buildings in Puducherry. This is not relevant or applicable in the context of Tamil Nadu.

Social

- OP/BP 4.12 Involuntary Resettlement

As the nature and scale of the impacts are minor, temporary and fully reversible, the CDRRP is classified as “**Category B.**” (Annexure 3 includes a synopsis of the World Bank’s safeguard policies.)

1.8 Structure of the ESMF

This report is organized into six chapters. The first chapter deals with project description describing project background, risk profile of the participating states, various components of CDRRP and approach and methodology used for developing this report. The second chapter reviews ETRP sub-projects taken up and environmental and social issues in these sub-projects. The third chapter describes legal framework applicable to this project and the World Bank safeguards. The fourth chapter deals with Environment and Social Management Framework for CDRRP and describes the key environmental and social issues, objectives of ESMF, institutional arrangements, monitoring and reporting, training and capacity building, consultation and disclosure. The fifth chapter deals with Resettlement Policy Framework detailing procedures for land procurement, approach to resettlement, entitlement matrix, grievance redress, consultation, special attention payable to women and other vulnerable groups and the means of disclosure.

2 Social Safeguards and Resettlement Management

2.1 Introduction

This Resettlement Policy Framework (RPF) will act as a guide for mitigating and managing the negative social impacts that would be triggered by the sub-projects under CDRRP. This Framework comprises of the following sections:

- Land Acquisition
- Categories of Project Affected Families (PAFs)
- Entitlement Matrix
- Grievance Redress
- Consultation

The framework has been developed based on the following policies/ legislations (Annexure 2 gives the summary):

- The Land Acquisition Act 1894
- The National Policy on Resettlement and Rehabilitation for Project Affected Families, 2007
- The Right to Information Act 2004
- The World Bank’s Safeguard Policy on Involuntary resettlement (OP 4.12).

2.2 Objective of RPF

The primary objective of this RPF is to provide better standard of living to the project affected persons or at least restore their standard of living to that before project. If the affected persons belong to Below Poverty Line (BPL) category before the project, then this RPF aims to bring them Above Poverty Line (APL). The other objectives of this RPF are to

- Avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs.
- Assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them.
- Encourage community participation in planning and implementing resettlement.
- Provide assistance to affected people regardless of the legality of land tenure.

The following guidelines will be followed during implementation:

- Compensation and Rehabilitation assistance will be paid before displacement.
- Compensation will be at replacement cost.
- No civil works will be initiated unless compensation for land and assets and rehabilitation assistance is provided to all eligible PAPs.
- Livelihood assistance will be given in form of Income Generation Assets (IGA) to be chosen by the PAPs.
- IA will provide information to the PAPs on alternative income generation activities suitable for the area and help them in making choices.
- The IA and PMU will monitor the provision of the IGA.
- The IA will monitor the performance of the IGA and report to PMU.

2.3 Land Acquisition (LA)

CDRRP proposes various types of sub-projects to be taken up. These sub-projects will require land depending on their type and size. The land requirement would vary across sub-projects and locations. The type and size of the sub-projects dictate the land requirement. The extent of land required would vary across the sub-projects.

GoTN is implementing similar projects on a regular basis, which require land, of which the ownership could be either public or private. Accessing public land is easier, but arrangements will have to be made for securing

privately owned land. When additional lands are required, GoTN, as a first step, would try and secure public lands where feasible and available. If private lands are required, then GoTN would resort to using LA Act or through consent award or outright direct purchase of land. There are instances, where GoTN has purchased private lands and transferred these to the projects including on the Emergency Tsunami Reconstruction Project.

2.4 Options for CDRRP

Keeping in mind any eventuality, the following options are proposed for procuring/ acquiring private lands:

- Land acquisition using LA Act 1894
- Land acquisition through Consent Award
- Land acquisition by Direct Purchase

2.4.1 LA Act

Procedure adopted for the acquisition of land under the LA Act is as follows:

- Preparation of land plan schedules and submission to the LA Officer.
- Publication by LA Officer of notification under section 4 (1) in the official Gazette and in two daily newspapers (one in regional language).
- Preliminary survey, to determine exact portion of land to be acquired. This allows filing of objections within 30 days of the date of public notice under section 5A by parties with an interest in the land.
- Declaration of the precise boundaries of the area to be acquired under section 6 in two daily newspapers (one in regional Language).
- The Government (Revenue Department) issues directions to the Collector to take order for acquisition of land under section 7.
- Land to be acquired is marked and measured and plans prepared under Section 8.
- Issuing of notice under Section 9 to landowners showing details of acquisition.
- Landholders submit claims for compensation.
- Declaration of award of compensation by collector under Section 11 after enquiring into objections. Compensation to be paid within two years of declaration of award. If no payment is made the proceedings lapse.
- Possession of land taken after payment award.

2.4.2 Consent Award

Under this method, after given Section 4 (1) notification, compensation is decided based on the negotiated settlement or based on the procedures specified in the act by the LA Officer. Under consent award system, the PAP negotiates with the buyer (LA Officer) for the loss incurred and once the amount is agreed upon, the PAP cannot move the court for

enhancement of the compensation. Rates for land are decided through a process of transparent negotiations.

2.4.3 Direct Purchase

Under this method, land is purchased through negotiations on a 'Willing Seller Willing Buyer' without any influence or coercion on the seller.

2.5 Categories of Project Affected People

From the experience of earlier projects and with the knowledge of project locations, it is established that lands acquired will be agricultural lands or residential or commercial lands. Taking these into account, and given that a generic framework is being developed, following broad categories of PAPs are identified:

- Titleholders (Assignees)
- Encroachers/ Squatters with no valid title
- Tenants/ Leaseholders/ Sharecroppers

2.6 Approach

This section deals with the cut-off date, PAF identification and the approach to be used for this purpose.

2.6.1 Cut-Off Point for PAF Identification

Socio-economic survey of the affected families done during the planning phase will serve as the cut-off point.

2.6.2 Identification of PAPs

During the preparation of Detailed Project Reports (DPR), a detailed census based socio-economic survey will be conducted and extensive consultations will be held with the PAFs, i.e. the land losers. Each target community will be identified and differentiated on the basis of their source and level of income. The survey will focus on land and various productive assets including wages. This information will be used to determine the nature and extent of livelihood support/assistance (over and above the provision made for compensation) required to restore adequate income levels. All these measures will be taken only after consulting the affected families and wider community. This approach will help in achieving its objective of ensuring that no affected household becomes poorer with the project intervention.

2.6.3 Compensation for structures and other assets

Structures: The compensation for structures includes market cost of the assets to build/ procure a replacement asset, or to repair, if affected partially. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account.

Compensation for trees, crops and other assets will be based on the replacement value using existing prices prepared by relevant agencies, taking into account their productivity and/or local market prices.

Common Property Resources: Grazing lands, places of worship, places of heritage value, burial grounds, water points, community wells, bore wells for drinking water, roads, path ways, wood lots, etc. are categorized under this heading. These resources will be restored to an acceptable level at an appropriate place as agreed with the community. Community will be fully involved in their replacement.

2.7 Entitlement for PAFs Matrix

The Entitlement Matrix has been developed for different categories of families. This Matrix can be used as a guide for designing Resettlement Action Plans for individual schemes. All the families will be entitled to two broad categories of assistance- one, compensation for land loss; and two, livelihood (rehabilitation) assistance for starting some income generation activity, which may include the purchase of lands, as decided by the PAF. The livelihood assistance in the matrix are rather indicative (as they are average figures), whereas, the actual assistance will relate to, at the minimum restoring, if not enhancing the pre-land loss income levels. Details related to the entitlements are presented in the matrix given in Annexure 4.

2.8 Grievance Redress

This section deals with the Dispute Redress Mechanism, the Grievance Redress Cell and the legal options available to the PAPs.

2.8.1 R&R Committee (RRC)

In order to address grievances related to land acquisition and resettlement and rehabilitation implementation, two bodies are to be established; R&R Committee at the state level and Grievance Redress Committee at the district level. The former will be established under the chairmanship of Commissioner of Revenue Administration, GoTN to monitor and review the progress of implementation of resettlement, in his capacity as Chairman. Project Director, CDRRP, GoTN, will be the Convener of this committee in TN. The composition of the committee will be with the following members:

1. Heads of Participating Departments
2. A senior representative, one each from BC Welfare and SC & ST Welfare
3. A senior representative of the Revenue Department
4. A senior representative of Disaster Management Department
5. A representative of the PRIs
6. A Prominent Academician (Social Scientist)
7. A prominent woman development professional
8. A representative of a prominent voluntary organization
9. Two representatives of PAPs who can articulate well

This committee should meet every quarter to review the progress made in the implementation of the RAPs and to solve any grievances of the PAPs. This committee will also provide policy related direction to the

Grievance Redress Cell and the participating departments with regard to Land Acquisition and Resettlement and Rehabilitation.

2.8.2 Grievance Redress Committee (GRC)

The Grievance Redress Committee will be established at each district under the chairmanship of District Collector for redress of grievances of the PAPs. The Representative from the IA shall be the Convener of these committees. At the district level, the IA will provide support to these committees. District level head of all participating departments will be members along with a PAPs representative and a prominent Social Worker of the district.

Thus, grievance mechanism will be available at two levels: (i) state level, and (ii) district level.

It is proposed that the PAPs first register the grievances with the IA. After receipt of grievance, the IA should take them to the committee to take up the matter during the next immediate meeting and initiate measures for redress. No grievance can be kept pending for more than a month which means the committee has to meet every month. Implementation of the redress rests with the PMU. In case the aggrieved party is not satisfied with the proposed redress measures, it can take approach the state level committee. If the aggrieved party is not satisfied with the decision of state level committee, it can approach the court of law.

Grievance Redress Mechanism				
Level	Agency	Time period for redress of grievances	Issues likely to emerge	Responsibility
District	Grievance Redress Committee	Maximum of one month	Encroachment Land acquisition Livelihood Assistance Compensation	<u>GoTN</u> : District Collector as Chairperson and the respective IA's district-level officer / engineer as Convener
State	R&R Committee	Maximum of three months	Inclusion of households	<u>GoTN</u> : Commissioner of Revenue Administration, Revenue Department as Chairman, and Project Director, CDRRP as Convener

2.8.3 Legal Options to PAFs

The PAFs will have two kinds of options for addressing their grievances relating to the Land Appropriation. One is the grievance redress mechanism incorporate in this framework as above. The other is the general legal environment consisting of court of law to address their grievance. These options will be disclosed to the PAFs during the public consultation process.

3 Review of CDRRP sub-projects / initiatives

As a background to developing this ESMF, a sample review of the proposed CDRRP sub-projects was done. All the sub-project types were covered in this sample review though not all the sub-projects. As some of the sub-projects are a part of the earlier ETRP, these were in various stages of implementation. The others were new projects to be done to further build the disaster risk reduction capacity of the GoTN. In this chapter, the outcome of the sample review of the different sub-project types is included. This chapter is structured to include in brief: Description, impacts & management measures and ESMF actions undertaken / required

3.1 Vulnerability Reduction

3.1.1 Construction of multi-disaster resistant permanent houses (Retroactive & Additional)

Description

Housing is generally one of the worst affected sectors during a disaster whether it is cyclones, storm surge, floods or fire. GoTN has a major rural housing reconstruction program to strengthen structurally vulnerable houses along the coastline. A part of this GoTN program, i.e. vulnerable houses between 200-1,000 m of the High Tide Line (HTL) were to be provided with multi-disaster resistant permanent houses under the earlier ETRP project. Of the 14, 349 houses being built across 11 coastal districts (except Chennai & Tiruvarur), about 11,187 houses were completed and 3, 162 houses are in various stages of completion (data as of December 2012). All of these houses are being constructed insitu with the exception of one or two villages.

As a part of this review, three locations - Venpurusham Kuppam, Mandavai Kuppam and Rasapettai – were visited. Observations specific to these locations are included in Annexure 5.

Impacts & management measures

As these houses are located in the coastal areas, CRZ clearances were obtained from the MoEF. For the additional houses proposed, the CRZ clearances will need to be obtained.

The only physical environmental impacts are those related to construction such as debris storage and disposal. As these houses are distributed within each village, the scale and intensity of these impacts are relatively less. In some locations, contractor's campsite management was a problem and local permissions were not obtained. To address these impacts, a generic EMP was prepared and has been integrated with the contract documents.

In terms of social impacts, the residents of the vulnerable houses had to be temporarily relocated. NGOs were appointed as third party facilitators

for the revalidation of beneficiaries, awareness generation and training. A shifting allowance of Rs. 1,000/- was paid as a one-time lump sum to each beneficiary. During the reconstruction period, Rs. 500 per month was paid as rental allowance. The new houses are insured against 14 types of disasters and electricity connections were also arranged as a part of the housing construction.

ESMF Actions Undertaken / Required

The following are relevant:

- For the houses under construction, implementation will be continued in line with the CRZ clearances already obtained. Implementation of the generic EMP that was developed during ETRP after obtaining Bank's concurrence will be continued. EMP monitoring and reporting will be a part of the overall project monitoring.
- To manage the environmental and social impacts in these sub-projects, a dedicated environmental specialist was appointed in the PIU of the Department of Rural Development & Panchayati Raj (RD & PR). And, in each district, a dedicated environmental engineer was appointed. This organizational arrangement will be continued to complete the houses initiated and for oversight of the additional houses to be undertaken.

3.1.2 Evacuation Routes and Evacuation Shelters (Retroactive)

Description

Construction of 44 km of evacuation routes connecting coastal communities to the evacuation shelters along with signage to facilitate evacuation will be undertaken. Work on evacuation routes are under implementation.

In addition, distributed over 12 coastal districts (except Chennai) where people do not have quick access to safe shelters in their locality during natural disasters, the multipurpose evacuation shelters will have facilities to accommodate livestock, kitchen, water storage and toilet facilities in a gender segregated way so as to facilitate a safe and hygienic shelter. Currently, 121 evacuation shelters have been identified and adding 20 more evacuation shelters will be explored. Of the 121 evacuation shelters identified, work has commenced in 21. The rest will be initiated soon.

As a part of this review, three locations – Southikuppam, Pinnathur, Thillaividangan and MGR Thittu – were visited. Observations specific to these locations are included in Annexure 5.

Impacts & management measures

The only physical environmental impacts are those related to construction. As these routes and shelters are distributed within each village and across many locations, the scale and intensity of these impacts are relatively less. To address these impacts, a site specific Environmental and Social Assessment was carried out by the DPR consultants during the

ETRP and EMP was prepared and has been integrated with the contract documents.

CRZ clearances are obtained for both evacuation routes and shelters.

ESMF Actions Undertaken / Required

The following are relevant:

- Implementation will be continued in line with the CRZ clearances already obtained.
- Implementation of the EMP that was developed by the design consultants during ETRP and approved by the Bank will be continued. EMP monitoring and reporting will be done as a part of the overall project implementation.
- Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

3.1.3 Early Warning Systems (Retroactive)

Description

Provision of early warning systems to save people's lives in disaster prone zones of the state using a Disaster Warning Announcement System (DWAS) will be done. These DWAS units will be housed in various identified locations like Village Administration Offices, Panchayat Union buildings, Schools, Municipal Primary schools, Evacuation/Cyclone Shelters, Co-operative Fair Price shops, Temples, Mosques, Community Halls and Panchayat Offices. This work will be soon started and tender evaluation is presently ongoing.

Impacts & management measures

No environmental and social impacts are envisaged. The nature of works is largely electrical. If civil works are involved, then minor construction-related environmental impacts may exist.

ESMF Actions Undertaken / Required

The following are relevant:

- To address possible minor environmental impacts, a generic EMP will be prepared and integrated with the bid / contract documents.
- EMP implementation, monitoring and reporting will be done as a part of the overall sub-project implementation.

3.2 Sustainable Fisheries

3.2.1 Fishery harbour (Retroactive)

Description

The reconstruction and modernization of fishing harbor at Nagapattinam and Pazhayar in Nagapattinam district are under implementation. The following works are included in both these harbor locations: (a) groyne and approach road, (b) diaphragm wall, (c) construction of structure for landside facilities, and (d) dredging the basin approach and lead channels.

These works are ongoing. About 47% and 72% of the works have been completed in Nagapattinam and Pazhayar respectively.

As a part of this review, both the harbors – Nagapattinam and Pazhayar – were visited. Observations specific to these locations are included in Annexure 5.

Impacts & management measures

The environmental issues of relevance are surface water quality, ambient air quality, noise quality, land contamination, marine impacts, waste water management, solid waste management, dredging material management and construction waste management. An EMP was developed based on a detailed ESA, to address these impacts and regular EMP monitoring & reporting is streamlined in the sub-project.

There are no social / resettlement impacts pertaining to this sub-project.

ESMF Actions Undertaken / Required

The following are relevant:

- All clearances – MoEF, Forest and CRZ – were obtained. The remaining implementation will be done in line with these clearances.
- EA was done for both the sub-projects, with detailed filed investigations and stake holder consultations by the design consultants during ETRP. EMP was integrated with the contract documents, after obtaining Bank's concurrence for the EAs / EMPs. The rest of the implementation will be done in line with the EMP.
- The process of obtaining the periodic consent-to-operate was also streamlined. This will be continued.
- As a part of the EMP, a wastewater treatment plant and solid waste management system has been included both at Nagapattinam and Pazhayar. This will be constructed and made operational.
- EMP implementation, monitoring and reporting will be continued as a part of the overall project implementation.
- Designated engineer-in-charge for environmental management in the Fisheries Department will be in place to oversee the project implementation.
- Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

3.2.2 Bar Mouths (Retroactive)

Description

There are two bar mouths under implementation. This is to provide a permanent opening of Vellar river barmouth (Portnova) in Cuddalore district and Uppanar river bar mouth (Thirumullaivasal) in Nagapattinam district. The project entails to provide permanent stability of coastal inlet at the river barmouths for dredging and construction of guide bunds so as to stabilize the coastal inlet and enable the fishermen unhindered venturing into sea for fishing operations.

At Vellar bar mouth, the following works are included: (a) approach road, (b) guide bund, (c) stone pitching and (d) dredging. At Uppanar bar mouth, the following works are included: (a) approach road, (b) groyne and (c) dredging.

About 92% and 46% of the works have been completed in Vellar bar mouth and Uppanar bar mouth respectively.

Impacts & management measures

The environmental issues of relevance are surface water quality, ambient air quality, noise quality, land contamination, marine impacts, waste water management, solid waste management, dredging material management, construction sites and labor camp management.

There are no social / resettlement impacts pertaining to this sub-project.

ESMF Actions Undertaken / Required

The following are relevant:

- CRZ clearances were obtained. The remaining implementation will be done in line with these clearance requirements.
- EA was done for both the sub-projects, with detailed filed investigations and stake holder consultations by the design consultants during ETRP. EMP was integrated with the contract documents, after obtaining Bank's concurrence and for EAs and EMPs. The rest of the implementation will be done in line with the EMP.
- EMP implementation, monitoring and reporting will be continued as a part of the overall project implementation.
- Dredge material disposal is an important issue. During the rest of sub-project implementation, particular care will be given to dredge storage and disposal.
- Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

3.2.3 Fish landing center (Retroactive)

Description

There are two fish landing centres at Nagore in Nagapattinam district and Portonovo-Annankoil in Cuddalore district. The following works are included in both these locations: (a) diaphragm wall, (b) dredging and (c) buildings. About 50% and 70% of the works have been completed in Nagore and Portonovo-Annankoil respectively.

Impacts & management measures

Impacts on the marine ecology due to possible oil spills / leaks, dredging activities and release of liquid / solid wastes from the harbor are expected. During construction, there will also be minor impacts on the ambient air quality and noise environment. To address these minor environmental impacts, an EMP has been developed as a part of the EA.

There are no social / resettlement impacts pertaining to this sub-project.

ESMF Actions Undertaken / Required

The following are relevant:

- CRZ clearances were obtained. The remaining implementation will be done in line with these clearances.
- EA was done for both the sub-projects with detailed field investigations and stake holder consultations, by the design consultants during ETRP. EMP was integrated with the contract documents, after obtaining Bank's concurrence to the EAs / EMPs. The rest of the implementation will be done in line with the EMP.
- EMP implementation, monitoring and reporting will be continued as a part of the overall project implementation.
- As a part of the EMP, a wastewater treatment plant and solid waste management system has been included both at Nagore and Portonovo-Annankoil. This will be bid out, constructed and made operational
- Concurrence will be provided by the PMU / GoTN for disclosing the ESA documents at Bank's Info shop.

3.2.4 Other Fishery infrastructure - Tube ice plant-cum-chilling room (Retroactive)

Description

A tube ice plant-cum-chilling room facilities at Chinnamuttom fishing harbor in Kanyakumari district is under implementation. This included the procurement, installation and commissioning of an ice plant in an already existing building. About 90% of the works has already been completed.

Impacts & management measures

There are no environmental impacts and social / resettlement impacts in this sub-project.

ESMF Actions Undertaken / Required

3.2.5 Generic environmental management measures are being implemented. Additional Fisheries Infrastructure

Description

The various fisheries infrastructure sub-projects under construction – fish landing center and fisheries harbor – has spurred the interest and its importance in further developing the fisheries economy. Additional fish landing centers and strengthening fishery harbors (e.g. Cuddalore Fisheries Harbour) are under consideration. Only one or two high priority infrastructure-related projects for which the DPRs are already prepared will be taken.

Impacts & management measures

The environmental issues of relevance are surface water quality, ambient air quality, noise quality, land contamination, marine impacts, waste

water management, solid waste management, dredging material management and construction waste management. There will be an EMP to address these impacts.

No social / resettlement impacts are envisaged in these sub-projects.

ESMF Actions Undertaken / Required

The following are relevant:

- ESA will be done as a part of the Detailed Project Report (DPR) preparation.
- Clearances – as required by regulations – either Forests or EA or CRZ or all, will be obtained.
- The documents will be shared with the Bank for its review and clearance.
- All documents will be disclosed locally and in the web sites of PMU and PIA.
- As a part of the ESA, EMP will be prepared and integrated with the bid / contract documents. EMP implementation, monitoring and reporting will be done.

3.2.6 Fisheries: Implementing FIMSUL Reforms

Description

Completed as a part of the earlier project, FIMSUL laid a strong foundation for implementation of fisheries reform. Under CDRRP, this will put into practice key reforms for the marine fisheries sub-sector in TN and Puducherry. In TN, Fisheries Management Planning, Fisheries co-management in three geographical units, monitoring & evaluation and improved capacities and knowledge management will be done.

Impacts & management measures

The nature of the activities is at a policy reform and capacity building. No physical environmental and social impacts are envisaged. There will be no involuntary restriction in access to resources as a result of the fisheries management sub-component and therefore no process framework is needed.

ESMF Actions Undertaken / Required

The following is relevant:

- Integration of environmental and social concerns will be addressed as a part of the policy and capacity-building initiatives.

3.3 Strengthening Risk Reduction and Response Capacity

3.3.1 Community Based Disaster Risk Management Program (CBDRM)

Description

A Community Based Disaster Risk Management (CBDRM) program will be implemented to assist communities better utilize risk mitigation infrastructure and work together with local governance system while

mobilizing themselves to be better prepared as well as respond to any disaster event. This include capacity building activities such as training of community trainers, training of specialized organizations like the Fire & Rescue Services, facilitating on-the-ground NGO involvement, mobilizing community and monitoring & evaluation. This will enable to maximize effectiveness of the physical disaster risk reduction infrastructure that the project will be supporting.

Impacts & management measures

There will no adverse physical environmental and social impacts due to CBDRM initiatives.

ESMF Actions Undertaken / Required

The following are relevant:

- Environmental and social safeguard concerns will be suitably integrated in all the training and capacity-building CBDRM initiatives.

3.3.2 Curriculum development for disaster risk reduction in schools and training institutions

Description

This initiative will involve a review of the current status of school and training institutions curriculum with respect in the state of Tamil Nadu, identify the shortfalls and gaps, and then based on international best practice in DRR education, devise DRR curriculum for school and training institutions.

Impacts & management measures

There are no immediate or short-term physical environmental and social impacts in this initiative. However, the education imparted will be important in building the capacity to integrate environmental and social considerations in communities.

ESMF Actions Undertaken / Required

As a part of the curriculum development on Disaster Risk Reduction, environmental and social safeguards as well as climate change issues will be integrated.

3.3.3 Strengthening the State Disaster Management Authority (SDMA)

Description

The State Disaster Management Authority (SDMA) is at a nascent stage in the state. Under this initiative, their potential needs, human resource and technical capacity will be assessed. Recommendations will be made towards technical and non-technical staff, equipment and institutional capacity building needs. Specific technical studies for risk and vulnerability assessment and setting up of the emergency operations center will be taken up.

Impacts & management measures

There are no physical environmental and social impacts in this initiative.

ESMF Actions Undertaken / Required

In strengthening the SDMA, environmental and social safeguards capacity will be integrated on a need basis.

3.3.4 Developing a State Integrated Coastal Zone Management Plan (Retroactive)

Description

Studies pertaining to developing an Integrated Coastal Zone Management Plan were undertaken in the earlier ETRP. These studies are to be completed. Appropriate technical capacity and infrastructure in the Department of Environment will have to be created. This initiative will be to complete the ongoing studies that include demarcation of HTL with stone pillars along the entire length of the coast and setting up a GIS cell. In addition, training and awareness programs on ICZMP will also be undertaken by Department of Environment. These activities are in an advanced stage of completion.

Impacts & management measures

There are no direct physical environmental and social negative impacts in this initiative. Through this initiative, the capacity of the state on coastal environmental management will be strengthened.

ESMF Actions Undertaken / Required

Environmental and Social safeguard issues will be considered and mitigated appropriately during the implementation of ICZMP.

3.3.5 Underground Electricity / Powers Cables

Description

To avoid risk exposure to cyclone, winds and related hazards, replacement of overhead (OH) lines with underground (UG) cables will be undertaken. To be done by the TN Electricity Department, this sub-project is expected to benefit coastal community towns and villages, particularly in terms of an early resumption of power / electricity in the aftermath of natural disasters.

Impacts & management measures

Minor construction-related physical environmental impacts, e.g. storage and disposal of debris, are likely. Apart from being minor, these will also be temporary and fully reversible. As it is underground cabling, occupational health and safety concerns will arise for both the skilled and unskilled workers.

In terms of social impacts, there may be temporary displacement of squatters and encroachers along the alignment where the UG cables will be laid. No permanent displacement is envisaged.

As a part of this review, locations in Nagapattinam where the OH will be replaced with UG cables were visited. Observations specific to these locations are included in Annexure 5.

ESMF Actions Undertaken / Required

The following are relevant:

- To address the minor construction-related environmental and social impacts, an ESA will be carried out and suitable EMP / RAP (as needed) will be developed and implemented by the PIA with the help of consultants. This EMP will also integrate OHS issues.
- The documents will be shared with the Bank for its review and concurrence.
- All the safeguard documents will be disclosed locally and in the web sites of PMU and PIA.
- This EMP will be integrated with the bid / contract documents.
- EMP and RAP monitoring and reporting will be done as a part of the overall project implementation.
- Any social displacement – temporary or permanent – will be dealt as per the Resettlement Entitlement Framework.

4 Stakeholder Consultations & Disclosure

4.1 Project-level stakeholder consultations

Project-level stakeholder consultations were done at the Nagapattinam and Cuddalore (the key locations where substantial investments of CDRRP are planned) on March 14th and 15th, 2013 respectively. Altogether about 200 persons participated. Most of the community representatives were from the villages in the vicinity of the proposed initiatives. Their concerns / suggestions were pertaining more to the project design than on the environmental and social safeguard provisions included.

Annexure 10 provides a report on these project-level stakeholder consultations held.

4.2 Sub-project level stakeholder consultations

For all the sub-projects that are being retroactively funded, stakeholder consultations were carried out during the preparation of various sub-projects of the project area to: (a) obtain a better understanding of the potential impacts; (b) appreciate the perspectives/concerns of the stakeholders; and (c) secure their active involvement during finalization of EMPs.

Consultations were designed in a way that: (a) affected people were included in the decision making process; (b) links between communities and their natural, physical and cultural resources base adjacent to project locations were safeguarded; (c) public awareness and information sharing on project alternatives, benefits and entitlements were promoted; and (d) views on designs and solutions from the communities were solicited. Further additional sub-project level consultations were carried out during the 'Quick Review of Safeguard Issues' and the preparation of the ESMF for CDRRP. Inputs from the communities have been appropriated integrated in this ESMF.

The following table includes the list of sub-projects for which consultations were done as a part of the ESA or as a part of the DPR preparation.

No.	Project Title	Type of Consultations done	Further Details
<i>Component 1: Vulnerability Reduction</i>			
(i)	Construction of multi-disaster resistant permanent houses	Carried out during ESA and DPR preparation	Included in the respective section of the ESA
(ii)	Evacuation Routes and Evacuation Shelters		
(iii)	Early Warning Systems		

No.	Project Title	Type of Consultations done	Further Details
<i>Component 2: Sustainable Fisheries</i>			
(i)	Fishery harbors	As a part of the ESA, consultations were done.	Nagapattinam Fishing Harbour – May 27, 2009 & Nov 27, 2009. Pazhayar Fishing Harbour – Dec 4, 2007 and Nov 26, 2009.
(ii)	Bar Mouths	As a part of the ESA, consultations were done.	Uppannar River – Feb 28, 2008. Vellar River – Feb 27, 2008.
(iii)	Fish Landing Centres	As a part of the ESA, consultations were done.	Portonovo-Annankovil – Feb 27, 2008. Nagore - Done. Specific date not included in the report.
(iv)	Tube ice plant-cum-chilling room	Part of the design and implementation	Nil
<i>Component 3: Strengthening Risk Reduction & Response Capacity</i>			
(i)	Developing a State Integrated Coastal Zone Management Plan	Series of stake holder consultations (regional, local and sectoral) were carried out.	Included as a separate section on consultation in the ICZMP

Further consultations will be conducted for the new sub-projects as a part of the design and implementation, or through a sub-project ESA process.

No.	Project Title	Type of Consultations to be done
<i>Component 1: Vulnerability Reduction</i>		
1	Construction of multi-disaster resistant permanent houses	Consultations to be fully integrated as a part of the sub-project design and implementation
<i>Component 2: Sustainable fisheries</i>		
(i)	Additional Fisheries Infrastructure	As a part of the ESA, consultations will be done.
(ii)	Implementing FIMSUL Reforms	Consultations to be an integral part of the sub-project design and implementation

No.	Project Title	Type of Consultations to be done
<i>Component 3: Strengthening Risk Reduction & Response Capacity</i>		
(i)	Community Based Disaster Risk Management Program (CBDRM)	Consultations to be an integral part of the sub-project design and implementation
(ii)	Curriculum development for disaster risk reduction in schools and training institutions	Consultations to be an integral part of the sub-project design and implementation
(iii)	Strengthening the State Disaster Management Authority (SDMA)	Consultations to be an integral part of the sub-project design and implementation
(iv)	Underground Electricity / Powers Cables	Consultations to be an integral part of the sub-project design, ESA preparation and implementation

4.3 Disclosure

This section covers the disclosure arrangements pertaining to this ESMF and related documents.

4.3.1 Physical disclosure locations

Copies of the ESMF will be available with the PMU, the various Implementing Agencies and District Collectorates of each of the 13 coastal districts.

4.3.2 Website

The draft ESMF, the sub-project EAs and associated regulatory clearances have been duly disclosed in the project web site at <http://www.tn.gov.in/tsunami/> on March 12, 2013 and also in the web site of project implementing agencies. . Based on the comments / feedback / suggestions received, the draft ESMF will be modified and updated.

Similarly, the RAPs prepared for any sub-project will be displayed at the PMU and the CDRRP website.

4.3.3 Translation in local language / Tamil

The translation of the executive summary is also available in local language (Tamil) at the above web sites, PMU, various implementing agencies and the collectorates of each of the 13 coastal districts.

Tamil draft RAPs prepared for all sub-projects will also be advertised in local newspapers and will be physically disclosed at the nearest Gram Panchayat/ Municipal Office or any other local government office, where PAs can check for its accuracy. The lists of eligible PAs will also be available at these offices for checking by PAs.

4.3.4 Disclosure at the Bank's Infoshop

All safeguard documents, including ESA's prepared in the earlier project (ETRP) will be disclosed at the Bank's Info Shop, after obtaining PMU/GoTN's concurrence to the same.

5 Implementation Arrangements

5.1 Coordination

PMU will co-ordinate the preparation and implementation of CDRRP as well as the ESMF activities. PMU will include an Environmental Management Specialist and a Social Development Specialist to co-ordinate the environmental and social / resettlement activities under the CDRRP. The co-ordination will include interactions with the different Implementing Agencies on the status / progress of the sub-projects, consultants / contractors employed by these Implementing Agencies and NGOs supporting implementation. The identified PMU staff will also do co-ordination on ESMF activities with the World Bank.

5.2 Preparation, Approval, Funding and Implementation of EMPs/RAPs

The respective IAs will prepare the EMP/RAP as required by the sub-project. If the IAs avail the services of any Consultant for preparation of the Detailed Project Report, then the same Consultant will prepare the EMP/ RAP under the supervision/ guidance of the IA.

The EMPs/ RAPs prepared will be scrutinized by the PIU for their accuracy and compliance with the ESMF. This scrutiny would involve field visits.

The reviewed EMPs/RAPs will be sent to PMU for approval. The Environment Management Specialist and Social Development Specialist of the PMU will review the EMPs/ RAPs for their accuracy and compliance with the ESMF. .

All safeguard documents will be shared with Bank team's for its review and concurrence. The procurement process for the sub-projects will only start after complying to the safeguard requirements out lined in the ESMF.

The funds for implementing the EMPs/ RAPs will be included in the respective sub-project budget. This adequacy of this budget will be reviewed by the PMU. As the budget for implementation of EMP/ RAP is included in the sub-project funds, these funds will flow to the IA along the sub-project funds. With regard to RAP budget, the amounts given in the Entitlement Matrix are of 2007. These amounts need to be adjusted to inflation at a rate of 10% per year compounded every year from 2007 to the actual year of payment to PAPs.

The IA will implement the respective EMPs/ RAPs. Generally the EMPs are included in the sub-projects contractor's agreements. The RAPs will be implemented by the IA and if required the IA can seek the assistance of

local NGOs/ CBOs with the approval of PMU. If IA wishes to avail the assistance of NGOs/ CBOs in implementing the RAPs, then the cost for the same need to be included the budget while preparing the RAP.

5.3 Monitoring & reporting arrangements

The respective IAs will monitor the preparation and implementation of their respective sub-projects. This will include obtaining the various Government clearances, including the CRZ and MoEF clearances, if any. Adherence to the clearance conditions will also be the responsibility to the respective IAs.

Rural Development (RD) Department is the IA for the housing infrastructure under the Vulnerability Reduction component. In its PIU, RD will have an engineer, who will address the environmental and social safeguards aspects at the state level. And, in the district level, there will be one engineer under the Executive Engineer and one officer under the Assistant Project Officer given the responsibility on environmental and social safeguards. Similarly, in Fisheries and in TNEB, there will be one engineer at the state level dedicated to address and manage environmental and social safeguard issues.

IAs will monitor and report to the PMU on a monthly basis on all aspects of the ESMF implementation. PMU will report on ESMF compliance to the World Bank on a quarterly basis. A monitoring / reporting format is included in Annexure 6.

5.4 Training & Capacity-building

PMU will institutionalize a system of training and capacity building for all IAs, Consultants and Contractors on the ESMF on an ongoing basis. It will be organized on a six-monthly basis on a routine and will also be conducted on a case-to-case basis as required. The training will cover the features and requirements of the ESMF, sub-project level environmental management requirements and dos & donts relevant to the individual sub-projects. The cost of these trainings will be included as part of the overall operational budget of PMU under the implementation support component.

5.5 ESMF audit

5.5.1 Sub-project level

PMU will ensure that the audit to the ESMF requirements to be adhered by the construction contractor at the sub-project level will be done along with third-party technical quality audits being done for the project as a whole. These audits will necessarily include environmental and social safeguard requirements both at the project level and with respect to individual sub-projects.

5.5.2 Project level

In addition, the PMU will organize an audit of the adherence to ESMF requirements on the whole with an external third party auditor. This will be done once every 2 years. This will be done once prior to the mid-term review and once before the project conclusion. These audit reports will provide useful insights / inputs to the overall effectiveness of ESMF implementation.

5.6 Budgets

The budgetary requirements for ESMF implementation will be included in the overall operational budget of the PMU, which is covered under the Implementation Support Component and sub-project specific EMP implementation costs will be integrated in the Bill Of Quantities (BOQ) of the respective sub-projects.

Annexures

Annexure 1: Summary of applicable environmental laws and regulations

Legal Framework - Environment – Central Legislation

Water and Air (Prevention & Control of Pollution) Acts

Water (Prevention and Control of Pollution) Act, 1974 resulted in the establishment of the Central and State Pollution Control Boards (SPCBs) whose responsibilities include managing water quality and effluent standards, as well as monitoring water quality, prosecuting offenders and issuing licenses for construction and operation of certain facilities. The SPCB is empowered to set air quality standards and monitor and prosecute offenders under the Air (Prevention and Control of Pollution) Act, 1981.

Relevance to the Project

All construction contractors need to obtain the consent-to-establish and consent-to-operate for the various plants – concrete batching, stone crushing and other plants – that they may erect for the purpose of construction. This should be obtained from the nearest regional offices of the SPCB. If existing plants are to be used, then these should have the required consents.

Environment (Protection) Act, 1986 and Environmental Impact Assessment Notification, September 14, 2006

Environmental (Protection) Act, 1986 is the umbrella legislation providing for the protection of environment in the country. This Act provides for the Environment (Protection) Rules. Environmental Impact Assessment Notification, 2006 and the various amendments pertaining to this notification form a part of the regulations under this legislation.

Relevance to the Project

(1) In all their plant operations (if they erect), the contractors need to meet the requirements / standards prescribed in the various Environmental Protection Rules and other environmental regulations. (2) for relocation sites, there may be need to undertake an environmental impact assessment and obtain clearance under the EIA notification. This is based on the size of the relocation site. For small works: In all their plant operations, the contractors need to meet the requirements/standards prescribed in the various Environmental Protection Rules and other environmental regulations.

Forest (Conservation) Act, 1980

Forest (Conservation) Act, 1980 pertains to the cases of diversion of forest area and felling of roadside plantation. Depending on the size of the tract to be cleared, clearances are applied for at the following levels of government:

- If the area of forests to be cleared or diverted exceeds 20ha (or, 10ha in hilly area) then prior permission of Central Government is required;
- If the area of forest to be cleared or diverted is between 5 to 20ha, the Regional Office of Chief Conservator of Forests is empowered to approve;
- If the area of forest to be cleared or diverted is below or equal to 5ha, the State Government can give permission; and,
- If the area to be clear-felled has a forest density of more than 40%, permission to undertake any work is needed from the Central Government, irrespective of the area to be cleared.

Restrictions and clearance procedure proposed in the Forest (Conservation) Act applies wholly to the natural forest areas, even in case the protected/designated forest area does not have any vegetation cover.

Relevance to the Project

For all sectors:

- If the activities are going to necessitate the diversion of forest area, then the respective line departments have to take the necessary clearances from the Forest Department / MoEF.

Forest clearances obtained so far for the following projects:

- Diversion of 0.883 ha. of forest land in Pudupattinam Reserved Forest Bit, Nagapattinam Wildlife Division of Nagapattinam District for dredging of wharf - Reconstruction and modernisation of existing fishing harbour in favour of the Assistant Director of Fisheries, Nagapattinam

Ancient Monuments and Archaeological Sites and Remains Act, 1958

According to this Act, area within radii of 100m and 300m from the “protected property” are designated as “protected area” and “controlled area” respectively. No development activity (including building, mining, excavating, blasting) is permitted in the “protected area” and development activities likely to damage the protected property are not permitted in the “controlled area” without prior permission of the Archaeological Survey of India (ASI) if the site/remains/monuments are protected by ASI or the State Department of Archaeology if these are protected by the State.

Relevance to the Project

For all sectors:

- Activities in protected areas should not be undertaken.

- If activities are to be done in the controlled area of protected properties, then the respective line department should take the necessary permissions from the ASI.

Coastal Regulation Zone (CRZ) Regulations, 1991 (amended upto 2002)

Issued under the Environment (Protection) Act, 1986, coastal stretches have been defined as Coastal Regulation Zone and restrictions have been imposed on industries, operations and processes within the CRZ. For regulating development activities, the coastal stretches within 500 metres of High Tide Line on the landward side are classified into four categories, namely:

- CRZ-I: (i) Areas that are ecologically sensitive and important, such as national parks/marine parks, sanctuaries, reserve forests, wildlife habitats, mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historically/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas, and (ii) Area between Low Tide Line and the high Tide Line.
- CRZ-II: The areas that have already been developed upto or close to the shoreline. For this purpose, “developed area” is referred to as that area within the municipal limits or in other legally designated urban areas which are already substantially built up and which have been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains.
- CRZ-III: Areas that are relatively undisturbed and those which do not belong to either CRZ-I or CRZ-II. These will include coastal zone in the rural areas (developed and undeveloped) and also areas within Municipal limits or in other legally designated urban areas which are not substantially built up.
- CRZ-IV: Coastal stretches in the Andaman & Nicobar, Lakshadweep and small islands, except those designated as CRZ-I, CRZ-II or CRZ-III.

The development or construction activities in different categories of CRZ area shall be regulated by the concerned authorities at the State/Union Territory level, in accordance with norms stipulated in the CRZ regulation and in the state / UT coastal zone management plan.

Relevance to the Project

For housing:

- No new construction is permitted in CRZ-I areas that are ecologically sensitive.
- In CRZ-II areas, new buildings are permitted only on the landward side of the existing (or approved) road or authorized structures.

- In CRZ-III areas, no new construction shall permitted within 200m from the High Tide Line.
- In CRZ-III areas, construction or reconstruction of dwelling units between 200m and 500m is permitted only if it pertains to traditional / customary rights.

For fisheries:

- No new construction is permitted in CRZ-I areas that are ecologically sensitive.
- In CRZ-II areas, new buildings are permitted only on the landward side of the existing (or approved) road or authorized structures.
- In CRZ-III, the following activities require clearance from the State Coastal Zone Management Authority: (i) Construction of boat jetties and fishing harbours - requires an EIA, (ii) boat building and repair and (iii) boat re-fuelling facilities.

For small works:

- No new construction is permitted in CRZ-I areas that are ecologically sensitive.
- Construction of public rain shelters, community toilets, bridges, roads and jetties are permitted in CRZ-I areas that are not ecologically sensitive and fall between the high and low tide line. But clearance is required from the State / UT Coastal Zone Management Authority.
- In CRZ-II areas, new small works are permitted only on the landward side of the existing (or approved) road or authorized structures.
- In CRZ-III areas, construction of small public works such as public rain shelters, drainage, & roads and bridges is permitted with the permission of the State / UT Coastal Zone Management Authority.

Coastal Regulation Zone (CRZ) Clearances Obtained So Far for the following projects:

- Permanent stability of Coastal Inlet of Uppanar river of Nagapattinam District
- Permanent stability of Coastal Inlet of Vellar river of Cuddalore District
- Construction of Fish Landing Center at Porto-Nova - Annankovil village in Cuddalore District
- Construction of Fish Landing Center and other infrastructure facilities at Nagore
- Nagapattinam Fishing Harbour
- Rehabilitation and Modernisation work at Pazhayar Fishing Harbour)
- Construction of evacuation shelters along with approach roads

Legal Framework – State Legislation on Environment

Tamil Nadu Groundwater (Development and Management) Bill, 2000

This bill is to protect groundwater resources, to provide safeguards against hazards of its over-exploitation and to ensure its planned development and management in the state of Tamil Nadu and for matters connected therewith or incidental thereto. The bill shall empower government through the Tamil Nadu Groundwater Authority to develop, control, regulate and administer the groundwater in the state by ensuring its optimal and efficient utilisation. This also provides for conjunctive use of surface and groundwater. This bill provides for registration of new users of wells and also prohibition of sinking wells in notified areas without permit. It shall empower the authority to penalise the activities not in accordance with the act regarded as offences.

Relevance to the Project

For housing:

- TN Groundwater Authority regulates the abstraction of groundwater. Line department / contractor should obtain clearances / permissions, if required, from this Authority prior to any abstraction of groundwater.

For fisheries:

- TN Groundwater Authority regulates the abstraction of groundwater. Line department / contractor should obtain clearances / permissions, if required, from this Authority prior to any abstraction of groundwater.

For small works:

- TN Groundwater Authority regulates the abstraction of groundwater. Line department / contractor should obtain clearances / permissions, if required, from this Authority prior to any abstraction of groundwater.

Tamil Nadu Town and Country Planning Act, 1971

Tamil Nadu Town and country planning act, 1971 is set with an objective to provide for planning the development and use of rural and urban land in the State of Tamil Nadu and for purposes connected therewith. The Act provides for the preparation and implementation of Regional Plans, Master Plans, New Town Development Plans and Detailed Development Plans and other various spatial plans. The act ensures implementation through various developmental controls and policies that would be incorporated in the spatial plans. The developmental plan is being implemented at various levels through the Directorate of Town and Country Planning. These plans form the basis for landuse regulations within the planned area.

Relevance to the Project

For housing:

- All housing projects should be in compliance with the respective and existing development plans. Clearances / permissions should be taken from the Regional offices of the Directorate of Town and Country Planning prior to the construction of these housing projects.
- Town and Country Planning Regulations shall apply including the norms related to Floor Space Index (FSI) and Floor Area Ratio (FAR).
- Reconstruction of the authorized buildings to be permitted subject to the existing FSI/FAR norms and without change in the existing use.

For small works:

- All small works should be in compliance with the respective and existing development plans. Clearances / permissions, if required, should be taken from the Regional offices of the Directorate of Town and Country Planning prior to the construction of these housing projects.

Tamil Nadu Panchayats Act, 1994

The Tamil Nadu Panchayats Act, 1994 is an act to repeal and re-enact the Tamil Nadu Panchayats Act, 1958, for establishing a three tier panchayat raj system in keeping with the Seventy – third Amendment Act, 1992. It relates to the panchayats for greater participation of the people so as to make these institutions of self-government and more effective implementation of rural development programmes. The Tamil Nadu Panchayats Act provides for preparation and implementation of District development plans. Plan preparation is enforced from the Panchayat level, Panchayat union, Panchayat council, village panchayats, town panchayats, municipal councils and the municipal corporation towards overall development plans. District Planning Committee is responsible for the overall coordination of plan preparation. The act also provides for avoidance of encroachment of public lands and protection of roadside properties (including trees) belonging to the respective government departments.

Relevance to the Project

For housing:

- All housing projects proposed in areas, which are under the jurisdiction of the town or village panchayats, should obtain their clearance / permission. The line department should ensure that this is obtained.
- All construction camps (including plant & equipment) in areas, which are under the jurisdiction of the town or village panchayats, should be established only after obtaining their clearance / permission.

Small public works:

- All small works proposed in areas, which are under the jurisdiction of the town or village panchayats, should obtain their clearance / permission.

Fisheries

- All workshops, e.g. boat repair yards, which are under the jurisdiction of the town or village panchayats, should be established only after obtaining their clearance / permission.

Annexure 2: Summary of applicable resettlement and social laws and regulations

The following policies/ legislations will apply for similar projects.

The Land Acquisition (LA) Act of 1894

The Land Acquisition (LA) Act of 1984 is commonly used for acquisition of land for any public purpose. It is used at the State level with State amendments made to suit local requirements. Expropriation of and compensation for land, houses and other immovable assets are carried out under the Land Acquisition (Amendment) Act, 1984. The Act deals with compulsory acquisition of private land for public purpose. The procedures set out include: (i) Preliminary notification (Section 4); (ii) Declaration of Notification (Section 6); (iii) Notice to persons interested (Section 9); (iv) Enquiry and award (Section 11); (v) Possession (Section 16). The 1984 amendments to the LA Act addressed the matter of compensation and delays in payment. As regards, the level of compensation, the rate of solatium was increased from 15 per cent to 30 per cent. For delays, the amendment requires that:

- (i) A time of one year was fixed for completing all formalities between the issuance of Section 4 and Section 6; and
- (ii) The compensation award must be determined within two years of the issuing of section 6 notification. Interest is payable at a rate of 12 per cent per year from the date of preliminary notification to the date of dispossession. These changes apply to cases before the Civil Courts even for awards made before the enactment of the amendments.

The LA Act does not contain any provision specifically dealing with resettlement including income restoration aspects. It does not allow for compensation (except for houses) for landless labourers, artisans and those sharing the use of land but do not have legal rights to it; The method of valuation of land considers only the market price of land at the date of notification under Section 4(1) but ignores any increase in the value of land at a subsequent date. The actual market value of land, which will entitle the owner to buy similar replacement land in adjacent areas, is not practicable under the framework of the LA Act; The Act computes the value of land through the sales statistics method leading to under valuation of land. Buyers deliberately under value their land in sales transactions to reduce the registration fees. This leads to a large number of court cases resulting in further delays and harassment both to land owners and concerned revenue officials; The Act does not specify any compensation for deprivation of Common Property Resources (CPR) especially loss of customary rights to land and forests, which forms an integral part of tribal livelihoods; The acquisition process takes too long and is not compatible with infrastructure project construction schedules.

The National Policy on Resettlement and Rehabilitation for Project Affected Families, 2007

Till recent times, in India, there were no safeguard policy to deal with resettlement and rehabilitation of displaced persons. There was no uniform approach adopted by states towards project displaced persons (DPs) and PAPs. In the absence of central policies, ad hoc administrative instructions, in conformity with the land acquisition act was in practice. In 2007 the Government of India developed a National social safe guard policy. This was developed taking into the consideration the safeguard policies of international development bodies like the World Bank, Asian Development Bank etc, "The National Policy on Resettlement and Rehabilitation for Project Affected Families, 2007" (NRRP) came into effect in October 2007. The salient feature and the statements of the NRRP policy are as follows:

- (i) SIA shall be mandatory for all projects involving displacement of four hundred or more families en masses in plain areas, or two hundred or more families en masses in tribal or hilly areas etc. Co-ordination with EIA in the context of the public hearing done in the project affected area for EIA shall also cover issues related to SIA.
- (ii) Consultations with affected people and disclosure of relevant information to them at various stages of resettlement planning;
- (iii) Affected people without legal rights also need to be assisted (affected people categorized landless agricultural workers, forest dwellers, tenants and artisans who are critically dependent on the acquired assets for their subsistence/ livelihoods);
- (iv) Prepare resettlement plans that are disclosed to the affected people in draft form, and reviewed and approved by competent authorities;
- (v) Collection of socio economic base line for project affected households;
- (vi) Project displaced persons (whose entire land is taken) will receive land in lieu of his loss. In addition to their loss cash assistance will be paid for regaining livelihood;
- (vii) Vulnerable project affected people will get extra cash/kind assistance;
- (viii) Purchase of land from any project affected persons would be through consent award (negotiation of rate between land owner and project authority);
- (ix) The Grievance Redress Cell shall have representatives of women, Schedule Castes Schedule tribes residing in the affected zone. The Cell shall have the power to consider and dispose of all complaints relating to resettlement and rehabilitation against the decision of the Administrator/R&R Committee at Project level;
- (x) A monitoring cell should be constituted under the project.
- (xi) Each project affected family comprising of rural artisan/small trader and self- employed person shall get one-time financial assistance for construction of working shed/shop for livelihood support.

Other Acts

Wages Related

The following are applicable for the welfare of the labour who will work for the sub-projects.

- Minimum Wages Act, 1948
- Contract Labour Act, 1970
- The Bonded Labour System (Abolition) Act, 1976

Child Labour Related

The following are applicable for prevention of child labour in implementation of sub-projects.

- Child labour (Prohibition and Regulation) Act 1996 along with Rules, 1988
- Children (Pledging of labour) Act, 1933 (as amended in 2002)

Differently Abled Related

The following acts and rules are applicable in the identification and provision of support for the differently abled during implementation of sub-projects.

- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996

Social Status Related

Untouchability Offences Act, 1955 is applicable in the identification and prevention of untouchability.

Information Disclosure Related

Right to Information Act 2004 Act is applicable for information disclosure and information provision to seekers.

Annexure 3: Synopsis of Select World Bank Safeguard Policies

The following table lists and briefly describes the relevant safeguard policies of the World Bank.

Policy	Key Features
OP/BP 4.01 Environmental Assessment	Potential environmental consequences of projects identified early in project cycle. EAs and mitigation plans required for projects with significant environmental impacts or involuntary resettlement. EAs should include analysis of alternative designs and sites, or consideration of "no option" Requires public participation and information disclosure before Board approval.
OP/BP 4.04 Natural Habitats	Prohibits financing of projects involving "significant conversion of natural habitats unless there are no feasible alternatives". Requires environmental cost benefit analysis. Requires EA with mitigation measures.
OP/BP 4.36 Forestry	Prohibits financing for commercial logging operations or acquisition of equipment for use in primary moist tropical forests.
OP 4.09 Pest Management	Supports environmentally sound pest management, including integrated pest management, but does not prohibit the use of highly hazardous pesticides. Pest management is the borrower's responsibility in the context of a project's EA.
OP/BP 4.12 Involuntary Resettlement	Implemented in projects which displace people. Requires public participation in resettlement planning as part of SA for project. Intended to restore or improve income earning capacity of displaced populations.
OP/BP 4.20 Indigenous Peoples	Purpose is to ensure indigenous peoples benefit from Bank financed development and to avoid or mitigate adverse affects on indigenous peoples. Applies to projects that might adversely affect indigenous peoples or when they are targeted beneficiaries. Requires participation of indigenous peoples in creation of "indigenous peoples development plans".
OP/BP 4.11 Physical Cultural Resources	Purpose is to assist in the preservation of cultural property, such as sites having archeological, paleontological, historical, religious and unique cultural values. Generally seeks to assist in their preservation and avoid their elimination. Discourages financing of projects that will damage cultural property.
OP/BP 4.37 Safety of Dams	Applies to large dams (15 meters or more in height). Requires review by independent experts throughout project cycle. Requires preparation of EA and detailed plans for construction and operation, and periodic inspection by the Bank.
OP/BP 7.50 Projects on International Waterways	Covers riparian waterways that form boundary between two or more states, as well as any bay, gulf, strait or channel bordered by two or more states. Applies to dams, irrigation, flood control, navigation, water, sewage and industrial projects. Requires notification, agreement between states, detailed maps, feasibility surveys.
OP/BP 7.60 Projects in Disputed Areas	Applies to projects where there are territorial disputes present. Allows Bank to proceed if governments agree to go forward without prejudice to claims. Requires early identification of territorial disputes and descriptions in all Bank documentation.

Other World Bank Policies important to Environmental Concerns is the BP 17.50. This policy deals with Disclosure of Operational Information. The Bank's Policy on Disclosure of Information.

Annexure 4: Resettlement Entitlement Matrix

Impact Type	Entitled Persons	Entitlement
1. Loss of land		
A. Residence		
i. With valid title, Assignees, etc.	Displaced Family	<p>Compensation as per LA Act/Consent Award.</p> <p>Free House site: Any Project Displaced Family (PDF) owning house and whose house has been acquired shall be allotted free of cost house site to a maximum extent of 150 sq m. of land in rural areas and 75 sq m. of land in urban areas.</p> <p>Grant for House construction: Each PDF of BPL category who has been allotted free house site and shall get a one-time financial assistance of Rs.1,00,000 or as fixed by Government from time to time for house construction. APL families shall not be entitled to receive this assistance.</p> <p>Permission to take salvaged materials</p> <p>Grant for Transporting materials: Each PAF shall get lump sum one time financial assistance of Rs.5000/- or as fixed by Government from time to time for transportation/shifting of his building materials, belongings and cattle etc. from the affected zone to the resettlement zone.</p> <p>Subsistence allowance to displaced family: Each PAF who is also a project displaced family shall get a one- time subsistence allowance equivalent to 240 days of minimum agricultural wages. It will be in addition to any other benefit available to him as PAF.</p> <p>Grant for animal shed: Each PAF having animals, at the time of acquiring his house, shall get financial assistance of Rs.10,000/- or as fixed by government from time to time for construction of animal shed in new settlement.</p> <p>Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.</p>

Impact Type	Entitled Persons	Entitlement
ii. With no valid title (Encroachers/ Squatters)	Displaced Family	<p>Free House site: Any Project Displaced Family (PDF) owning house and whose house has been acquired shall be allotted free of cost house site to a maximum extent of 150 sq m. of land in rural areas and 75 sq m. of land in urban areas.</p> <p>Grant for House construction: Each PDF of BPL category who has been allotted free house site and shall get a one-time financial assistance of Rs.1,00,000 or as fixed by Government from time to time for house construction. APL families shall not be entitled to receive this assistance.</p> <p>Permission to take salvaged materials</p> <p>Grant for Transporting materials: Each PAF shall get lump sum one time financial assistance of Rs.5000/- or as fixed by Government from time to time for transportation/shifting of his building materials, belongings and cattle etc. from the affected zone to the resettlement zone.</p> <p>Subsistence allowance to displaced family: Each PAF who is also a project displaced family shall get a one- time subsistence allowance equivalent to 240 days of minimum agricultural wages. It will be in addition to any other benefit available to him as PAF.</p> <p>Grant for animal shed: Each PAF having animals, at the time of acquiring his house, shall get financial assistance of Rs.10,000/- or as fixed by government from time to time for construction of animal shed in new settlement.</p> <p>Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.</p>
B. Commercial		
i. With valid title, Assignees, etc.	Displaced Family	<p>Compensation as per LA Act/ Consent Award</p> <p>Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.</p> <p>Permission to take salvaged materials</p>
ii. With no valid	Displaced Family	Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and

Impact Type	Entitled Persons	Entitlement
title(Encroachers/ Squatters)		self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop. Permission to take salvaged materials
ii. Tenants, Leaseholders	Displaced Family	Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop. Reimbursement for unexpired lease
2. Loss of Agriculture Land		
i. With valid title, Assignees, etc.	Affected Family ¹	Compensation as per LA Act/ Consent Award Allotment of Government land to PAFs, who become Small, or Marginal farmers or Landless after acquisition, in lieu of Acquired land: In case of allotment of waste/degraded or agricultural Government land, if available within the District, in lieu of acquired land and if agreed by PAF for allotment of such land, each such PAF shall also get financial assistance of Rs.20,000 per hectare or as fixed by Government from time to time for land development and in case of allotment of agricultural land, Rs.10,000 per PAF or as fixed by Government from time to time for agricultural production shall be given. Allotment of land acquired by Government from the project benefited area to Schedule Tribe PAFs, who become Small, or Marginal farmers or Landless after acquisition, in lieu of Acquired land from them: Government may acquire land within the project benefited area, as per guidelines issued by the Government from time to time such that no person should become small or marginal farmer or land less due such acquisition, for allotment of such land to ST PAFs (who become small or marginal farmers or landless due to acquisition of their land for the project), if such PAFs so desire, in lieu of lands acquired from them.

Impact Type	Entitled Persons	Entitlement
		<p>Wages if after acquisition land owner becomes land less: Each PAF owning agricultural land in the affected zone and whose entire land has been acquired shall get one-time financial assistance equivalent to 750 days minimum agricultural wages for “loss of livelihood” if no land is allotted in lieu of acquired land.</p> <p>Wages if after acquisition land owner becomes marginal farmer: Each PAF owning agriculture land in the affected zone and who consequently becomes a marginal farmer shall get one time financial assistance equivalent to 500 days minimum agricultural wages if no land is allotted in lieu of acquired land.</p> <p>Wages if after acquisition land owner becomes small farmer: Each PAF owning agriculture land in the affected zone and who consequently becomes a small farmer shall get one time financial assistance equivalent to 375 days minimum agricultural wages if no land is allotted in lieu of acquired land.</p> <p>Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.</p> <p>Training in alternate livelihoods and adoption support under capacity building component of the project</p> <p>Assistance to avail benefits from other government schemes.</p>
ii. With no valid title (Encroachers)	Affected Family	<p>Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.</p> <p>Training in alternate livelihoods and adoption support under capacity building component of the project</p>
iii. Loss of standing crops/trees	Affected Family	Compensation as per the LA Act
3. Loss of Residential/ Commercial	Affected Family (Titleholder)	<p>Compensation of structure will be paid at the replacement cost to be calculated as per latest prevailing Basic Schedule of Rates (BSR) without depreciation.</p> <p>Assistance of Rs.10,000/- towards temporary accommodation</p>

Impact Type	Entitled Persons	Entitlement
Structures		Transportation assistance of Rs.5000/- Right to salvage material from demolished structure and frontage etc. Rental assistance as per the prevalent rate in the form of grant to cover maximum three month rentals
4. Loss of Rental Accommodation (Residential/ Commercial)	Tenants	Rental assistance for both residential & commercial tenants as per the prevalent rate in the form of grant to cover maximum three month rentals. Additional structures erected by tenants will also be compensated and deducted from owner's compensation amount. Shifting assistance based on type of house and household assets. Any advance deposited by the tenants will be refunded from owners total compensation package to the tenant on submission of documentary evidence. Right to salvage material from demolished structure and frontage etc. erected by tenants.
5. Loss of Immovable Structures (Residential/ Commercial)	Squatters/ Encroachers	Squatters and Encroachers will be notified and given one month time to remove their assets or harvest their crops. Compensation for loss of structure at replacement cost for Squatters. Compensation for loss of structure at replacement cost for only the vulnerable households among Encroachers Shifting assistance of Rs. 10,000/- for Squatters. For Squatters and Encroachers right to salvage material from the demolished structure.
6. Loss of livelihood/ trade/ occupation	Affected Family	Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self-employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop. Training in alternate livelihoods and adoption support under capacity building component of the project Assistance to avail benefits from other government schemes.
7. Loss of access to common resources		

Impact Type	Entitled Persons	Entitlement
and facilities		
i. Civic Amenities	Community/ GP/ ULB	Relocation of CPRs/amenities or providing basic minimum facilities and services as per Government standards, whichever is better as decided by community GP/ ULB
ii. Customary Rights	Affected ST Families	Income Generating Scheme Grant: Each PAF comprising or rural artisan/small trader and self- employed person shall get one-time lump sum financial assistance of Rs.50,000 or as fixed by Government from time to time for construction of working shed/shop.
8. Unforeseen/ Unanticipated Impacts		Any unforeseen/ unanticipated impacts due to the sub-projects will be documented and mitigated based on the spirit of the principle agreed upon in this framework.

Note: The amounts given in the above Entitlement Matrix are of the year 2007. These amounts would be adjusted for inflation at the rate of 10% per year compounded every year from 2007 to the actual year of payment to PAPs.

Annexure 5: Review / Field Visit – Table of Observations

Sub-Project	Environmental Observations/ Issues	Social Observations/ Issues
<i>Bio-Shields</i>		
Vadanemeli	Degradation of bio-shields Felling of trees No replanting after harvesting of Casuarina plants	Engaging SHG with harvesting rights and GP for sustainability as advised by Forest Department.
<i>Decentralized Sanitation</i>		
Venpurusham Kuppam	Plant running to partial capacity due to low sewage flows. Log book entries made by operator.	Many households using latrines.
Mandavai Kuppam	Plant not running Starter under repair. Electric power disconnected. Plants in gravel filter drying up.	5 houses not connected to sewers by contractor Manholes connections to these houses not completed.
MGR Thittu	Plant partially running. No foul smell from plant. Some sewer lines are blocked due to entry of and as the manhole top levels are low. Villagers complain of improper gradients. Water seepage into manholes	Low latrine usage by community
Muzhukkuthurai	Plant partially working. No foul smell from plant.	About 55 households do not have latrines. Villagers use latrines partially.
Keechankuppam	Plant reported as commissioned but not yet completed. Lot of debris in tanks and filter beds and around the plant.	Nil

Sub-Project	Environmental Observations/ Issues	Social Observations/ Issues
	Lines and levels appear to be shabby.	
Sathankudi	Reported as commissioned, but, plant not working. It appears that sludge drying beds are not used.	Nil
Kuttiyandiur	Plant is fully working and in good condition Plants in gravel beds are growing well and are colourful. No foul smell from plant.	Villagers report good number of households using latrines. Villagers are happy that plant is working.
<i>Housing</i>		
Venpurusham Kuppam	Clean streets and community surroundings debris free	Houses allotted and occupied Most people happy with houses and some have extended the houses by spending 1 to 3 lakhs.
Mandavai Kuppam	Clean streets and community surroundings debris free	Houses allotted and occupied House owners happy with the houses and have spent additional amounts to expand and decorate houses.
Rasapettai	Water supply to be commissioned Some occupants complain of leakage and damaged flooring. Some occupants complain of rainwater entering living room from verandah. Advised proper sloping or reduce verandah floor level.	Houses allotted and occupied Most occupants are happy with the houses. Household latrines not in regular use
<i>Evacuation Shelter and Routes</i>		
Southikuppam	Nil	Nil
Pinnathur	Parapet wall of culvert to be raised by 1 m for safety of school going children.	Demolished bathing ghat to be rebuilt on both sides.

Sub-Project	Environmental Observations/ Issues	Social Observations/ Issues
	Debris needs to be cleared off the canal feeding the tank and canal slopes be restored and protected. A box culvert needs to be built on canal at road crossing for water to flow into the tank.	
Thillaividangan	Nil	Evacuation route not planned. A route of about 200 m connecting shelter to Keelchavadi-Kodipallam road be built.
MGR Thittu	Nil	Villagers complain that contractor brought skilled, semi-skilled and unskilled labour from outside the state and very few locals are working on the project.
<i>Underground Electric Cables</i>		
Nagapattinam and other places	Safety precautions during excavation and laying of cables. Fixing of warning signs to prevent digging accidental contact with cables. Permissions for railway crossing.	Narrow streets in the ULBs. No gap between dwelling boundaries and streets/lanes. Obviously there are encroachments on to the streets and lanes. Common property resources along road edges. The DPR should list these impacts and propose mitigation measures.
<i>Fishing Harbours</i>		
Nagapattinam	Sewage Treatment Plant yet to start. Dredging in Kaduvaiyar and Uppanar about 80% completed. The dredged material used for reclamation of low lying lands. Land reclamation using dredged material at south of river and infrastructure (net mending	Consultations conducted during planning and implementation Presently villagers propose for extension of facilities to Vellar area.

Sub-Project	Environmental Observations/ Issues	Social Observations/ Issues
	hall, auction hall and toilets are yet to be commenced).	
Nagore	Diaphragm wall and retaining wall and infrastructure (auction hall, net mending hall, fishing gear locker, toilets) about 80% completed. Dredging about 80% completed and dredged material used for reclamation of low-lying areas.	Consultations conducted during planning and implementation. Presently villagers propose stabilization of coastal inlet by building groynes and dredging and opening of bar mouth, etc.
Thirumalaivasal	Stabilization of coastal inlet work, groyne, about 90% completed. Approach road 100% completed. Dredging just started.	Consultations conducted during planning and implementation. Presently villagers propose fish landing center, auction hall, net mending shed, wharf, fishing gear locker, etc.
Pazhayar	Groyne and approach road completed. Diaphragm wall 80% completed. Dredging 75% completed. Dredged material used for reclamation of low lying areas. Infrastructure facilities yet to start. Permission from Forest Department was one of the reasons for delay.	Consultations conducted during planning and implementation. Presently villagers propose for extension groyne, guide wall on northern side, extension of diaphragm wall on Buckingham side, etc.

Annexure 6: Quarterly Progress Reporting Format – PMU, GoTN to the World Bank

Quarterly Progress Reporting Format – PMU, GoTN to the World Bank - Environment

Sl. No.	Sub Project	EA/EMP Status	Disclosure Date	Status of Clearances (CRZ, Forests, MOEF & PCB Consents)	EMP Implementation	
					Key Issues from Previous Visit	Compliance Status

Quarterly Progress Reporting Format – PMU, GoTN to the World Bank – Social / Resettlement

Sl. No.	Sub Project	SA / RAP Prepn Status	Disclosure Date & Location	Total LA, if any, Public & Private	Status of LA	Total PAPs (Owners, Encroachers & Squatters, if any)	Status of Compensation paid, if any	RAP Implementation	
								Key Issues from Previous Visit	Compliance Status

Annexure 7: Terms of Reference for Third party ESMF audit

Objective

The objective is to provide an external perspective on the ESMF in terms of its internal functioning and also in rendering effectiveness in safeguards implementation in the sub-projects under the CDRRP.

Scope of Work

The following will be the scope of work:

- * To develop a broad audit program for the four-year period that will include two audits to be done before mid-term and end-term of the project.
- * To develop an audit plan for each individual audit that will include an audit objective, scope, methodology and schedule.
- * To prepare an audit checklist for each individual audit that will cover both meetings with the PMU as well the sub-projects financed that will include both meetings with the sub-project proponent (contractors / sub-contractors) and consultants.
- * To conduct the individual audits as per the audit plan. This audit will necessarily check whether the procedures as stipulated in the ESMF have been followed, their effectiveness and how proper safeguards are practised in the sub-projects being implemented.
- * To prepare a report for each individual annual audit and present the findings to the PMU, GoTN.
- * To carry out a follow-up audit to ensure closure and to submit a brief report.

Team composition

The external agency will field an audit team that will necessarily comprise one senior environmental and one senior social assessment specialist. The Senior Environmental Specialist will be a master's degree holder in Environmental Science / Engineering / Planning or related area with at least 10 years of experience. Previous experience in reviewing/auditing management systems, carrying out EIAs and implementing / reviewing EMPs, particularly of bilateral / multilateral agency funded projects, will be essential. The Senior Social specialist will have a Masters in Social Development and allied areas with at least 10 years of experience in preparing / assessing Resettlement Action Plans (RAP).

Outputs / deliverables

The following outputs / deliverables are envisaged:

- * Conduct of the audit of the ESMF
- * Provide an audit report with findings for PMU's action
- * Conduct a follow-up audit to verify closure of findings & submit a brief report.

Annexure 8: Terms of Reference for Conducting ESA and preparing EMP and RAP for Sub-Projects

Project Background

A brief description of the CDRRP sub-project needs to be provided here. A description of the sub-project in question, the need for ESA and its objectives need to be given under this section.

Tasks to be performed by the Consultant

A. Environmental management

Policy and legal framework: The consultant need to collect information on the prevailing national, state and local laws, pertinent to environmental quality, health and safety, protection of sensitive areas, protection of endangered species, land uses control and others. The applicability of all laws to the proposed sub-project needs to be determined and the specific clearances / approvals that have to be obtained need to be detailed.

Baseline: The consultant need to assemble, evaluate and present baseline data on the relevant environmental characteristics of the sub-project area, including changes anticipated before the commencement of the project. The description of the baseline environmental setting shall be worked out from the secondary data sources supplemented by the primary data collected as part of the various surveys carried out as part of the EIA preparation. The physical environment: geology; topography; soils; climate and meteorology; ambient air quality; noise quality; surface and ground- water hydrology; existing sources of air emissions; existing water pollution discharges; and receiving water quality, etc. need to be described in detail. In addition to this the biological environment: flora; fauna; rare or endangered species; sensitive habitats, including reserved forests, wildlife reserves and sanctuaries etc. need to be identified and described. The socio-cultural environment: population; land use; planned development activities; community structure; employment; distribution of income, goods and services; recreation; public health; cultural properties; and tribal people and their usufruct rights, common property resources, etc. need to be mentioned.

Public consultation: The consultant needs to carry out public consultation and participation as an integral part of the EIA. Consultation sessions shall be carried out with different stakeholder groups at the local, regional and district levels, so as to incorporate the various environmental concerns and needs of the community and the relevant stakeholders.

Impact analysis: The consultant need to identify, analyse and evaluate the different kind of impacts, and to distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. The impacts on sensitive receptors need to be identified during the baseline environmental analysis. The impacts on natural habitats and other

sensitive areas, critical natural habitats (such as conservation areas, sanctuaries, sacred groves, etc.) and migration routes, historic, cultural and religious buildings and sites, archaeological sites, tourism areas, etc. need to be determined.

Analysis of alternatives: The consultant needs to describe alternatives that were examined in the course of developing the proposed project and identify other alternatives, which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. A comparison of alternatives in terms of potential environmental impacts and suitability under local conditions needs to be done.

The selected consultant needs to prepare an Environmental Management Plan consisting of the following:

Mitigation: The consultant need to identify feasible and cost-effective mitigation measures that may reduce potentially significant adverse environmental impacts to acceptable levels, capital and recurrent costs of the measures. The consultant need to specify in a table the description of the measure along with who is responsible and when it has to be implemented. The consultant need to include relevant drawings and technical specifications that would be required to implement the mitigation measure effectively.

Monitoring: The consultant need to prepare detailed arrangements in a plan for monitoring implementation of mitigating measures and the impacts of the sub-project during construction and operation. The consultant need to include in the plan an estimate of capital and operating costs, and a description of other inputs (such as training and institutional strengthening) needed to carry it out. The consultant need to include in the plan a list of environmental monitoring parameters, and detailed specifications (methods, schedule, etc) for performance/compliance monitoring during construction, and operation stage of the sub-project.

Management: The consultant needs to identify institutional needs to implement the recommendations of the EIA. This would include manpower requirements, skill requirements & training, organisational mechanisms and information dissemination requirements. The consultant should recommend any further studies of environmental issues which should be undertaken during project implementation.

B. Social

Policy and legal framework: The consultant need to collect information on the prevailing national, state and local laws, policies, rules and regulations pertinent to land acquisition, protection of the vulnerable and R&R policies of other projects. The applicability and consequences of all laws, rules and regulations to the proposed sub-project to be decided.

Baseline and Census: The consultant need to assemble, evaluate and present baseline data on the relevant socio-economic characteristics of the sub-project area, including changes anticipated before the commencement of the project. The description of the baseline socio-economic setting shall be worked out from the secondary data sources supplemented by the primary data collected as part of the various surveys carried out as part of the ESA preparation. A description of the planned development activities, community structure and tribal people and their usufruct rights, common property resources, land values, etc., if any, need to be given. The consultant need to list all the key stakeholders, people (both as individuals and as communities) who are likely to be adversely affected by the project, including tribals, if any, vulnerable sections, etc. The consultant needs to conduct a census survey of all the project affected persons and establish a cut-off date for entitlement in consultation with the respective departments.

Stakeholder Consultations: The consultant needs to conduct stakeholder consultations and ensure stakeholder participation as an integral part of the ESA and RAP preparation process. Consultation sessions shall be carried out with different stakeholder groups so as to incorporate the various socio-economic concerns and needs of the community and the relevant stakeholders.

Impact analysis: The consultant need to identify, analyse and evaluate the different kind of impacts, and to distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts due to the sub-project interventions. The study needs to determine the impacts on the vulnerable identified during the baseline and census surveys.

Analysis of alternatives: The consultant needs to suggest alternatives that were examined in the course of developing the proposed project and identify other alternatives, which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures to minimize the adverse social impacts. The consultant needs to compare alternatives in terms of potential social impacts and suitability under local conditions.

The selected consultant needs to prepare an Resettlement Action Plan, when required, consisting of the following:

Mitigation: The consultant need to identify feasible and cost-effective mitigation measures that may reduce potentially significant adverse social impacts to acceptable levels, capital and recurrent costs of the mitigation measures. The consultant needs to calculate and enumerate various entitlements to PAPs as part of preparation of RAP and prepare RAP. The consultant needs to specify in a table the description of the measures to be taken up along with who is responsible and when it has to be implemented.

Monitoring: The consultant need to prepare detailed arrangements in a plan for monitoring implementation of RAP and the impacts of the sub-project implementation. The consultant needs to include in the plan an estimate of the RAP implementation costs, and a description of other inputs (such as training

and institutional strengthening) needed to carry it out. The consultant needs to document in the plan what will be monitored, who would do it, who would receive its outputs, how much it would cost, how it would be financed and what other inputs (for example, training) are necessary. The consultant needs to include in the plan a list of social monitoring parameters for process/performance /compliance monitoring during implementation of the sub-project.

Management: The consultant needs to identify institutional needs to implement the RAP. This would include work force requirements, skill requirements & training, organisational mechanisms and information dissemination requirements.

Skills Required

One Environmental Specialist with a masters degree and relevant experience of about 15 years.

One Social Specialist with a masters degree and relevant experience of about 15 years.

Time Duration

Approximately about 4 weeks to submit the Final Report.

Annexure 9: Terms of Reference of the PMU Environmental Management and Social Management Consultant

Draft Terms of Reference for Environmental Management Consultant

To ensure adequate management of environmental and social safeguards aspects of the project, an Environmental and Social Management Framework (ESMF) is developed and is to be implemented by all the Implementing Agencies (IAs).

(a) Scope of work

In order to ensure effective implementation of the ESMF and provide guidance on environmental issues of the project, the PMU intends to deploy a full time Environment Consultant. The scope of work for the Environment Consultant to be positioned in Project Management Unit (PMU), CDRRP, will comprise the following tasks:

- (i) Work closely with the project implementing agencies (and the consultants) and provide advice on the environmental aspects to be considered during design and implementation phase of sub- projects;
- (ii) Review the Environmental Assessment Reports (EAR) and other related documents with regard to their compliance with the ESMF, various environmental issues and the adequacy of management measures and provide necessary guidance to the IAs/ consultants in improving the reports prior to forwarding to The World Bank for necessary approval / clearance;
- (iii) Co-ordinate with the IAs and provide necessary support in securing regulatory clearances such as Environment, Forest, CRZ Clearances or consents from TNPCB and other agencies;
- (iv) Carry out periodic visits to sub-project implementation sites to monitor as well as to provide onsite guidance to the IAs and the contractors on the implementation of respective sub-project Environmental Management Plans (EMPs), if any, and other aspects of the ESMF;
- (v) Participate in the progress review meetings of the PMU and provide advice on environmental aspects of the respective sub-projects during implementation;
- (vi) Co-ordinate with the Project Management Consultants, Quality Auditors and consultants / agencies of the project (both at PMU and at IAs) and ensure that the environmental aspects related to the task of respective agencies are performed as per the ESMF ;
- (vii) Maintain a data base in a standard form, on the status of various environmental activities of CDRRP (clearances, compliances, EA reports, progress reports, etc.) and update the same on regular basis.
- (viii) Prepare and submit periodic progress reports to the GoTN and the quarterly progress reports the World Bank, on all the aspects related to environmental management in CDRRP;
- (ix) Function as a single-point contact at the PMU and for other external agencies, including The World Bank, and provide all support on environmental matters of CDRRP;

(x) Follow up with the IAs and other agencies in addressing various environmental safeguard actions agreed during the World Bank Missions from time to time, and provide timely update to the PMU and the Bank.

(b) Qualification and Experience

The Consultant shall be an environment professional with post-graduation in Environmental Engineering/ Planning /Science and 10 years of experience in environmental management. At least 5 years of the above experience shall include carrying out Environmental Assessment (EA/EIAs), preparation of Environmental Management Plans (EMPs) and management of environmental issues in infrastructure projects.

(c) Reporting and Deliverables

The Consultant shall report to the Project Director, PMU, CDRRP and shall provide outputs by way of monthly reports, technical supervision reports, reviews on various documents and other environmental matters related to the project

Draft Terms of Reference for Social Management Consultant

(a) Qualifications and Experience

- (i) Should possess Master's degree in Social Sciences preferably in Social Work / Economics/ Sociology / Anthropology/ Regional Planning / Development Studies / Management ;
- (ii) Should have at least 10 years of professional experience in the areas of land acquisition, involuntary resettlement, consultation and participation, socio-economic Surveys, livelihoods/ social capital restoration, community based disaster management, housing reconstruction, monitoring and evaluation of social development activities, grievance redress ,etc.;
- (iii) Should have knowledge of computer applications to manage database and generation of reports is essential;
- (iv) Should possess skills in using participatory rural/rapid approaches in planning, implementation and monitoring and evaluation;
- (v) Should have good documentation skills, especially in documenting social management process, success/ failure stories and lessons learnt; and
- (vi) Should have experience of working on similar or related projects financed by the external / multilateral agencies is an added advantage.

(b) Duties and responsibilities

The duties and responsibilities include but not limited to the following:

- (i) Will report to the Project Director / OSD and work under his overall direction;
- (ii) Assist the Project Director / OSD in the review and approval of various screening report related to social safeguards in accordance with agreed Environmental and Social Management Framework (ESMF);

- (iii) Responsible for overseeing and coordination of the implementation of social development, resettlement activities, livelihood program, land acquisition, resettlement, NGO coordination, grievance redress, community based disaster risk mitigation and other social development activities in the reconstruction / risk mitigation program;
- (iv) Responsible for ensuring compliance with respect to social aspects of ESMF particularly the preparation and implementation of social action plans;
- (v) Manage the social / resettlement assessment studies and coordinate preparation of relevant action plans to implement the outcomes of social / resettlement Assessment process;
- (vi) Facilitate community and CBOs participation in planning and implementation of social management activities and introduce participatory monitoring and evaluation methods using PRA approaches;
- (vii) Coordinate with various implementing agencies and district offices for overseeing the implementation and monitoring of land acquisition and involuntary resettlement mitigation actions and other social/community development activities;
- (viii) Preparation of periodical progress report on social / resettlement impacts for management's review and action;
- (ix) Maintain and upgrade the computerized database related to the delivery of land acquisition compensation as well as resettlement entitlements, grievance redress and generation of periodical progress report.
- (x) Review the outputs of NGOs and consultants related to social / resettlement impacts in the project activities; and,
- (xi) Undertake field visits to impact areas as appropriate to monitoring the implementation of social dimensions as well as land acquisition and involuntary resettlement mitigation actions;
- (xii) Document the social management process, in particular highlight the selected success/ failure stories and lessons learnt; and,
- (xiii) Manage any other activities related to social development / resettlement as required.

Annexure 10: Stakeholder consultations at Nagapattinam and Cuddalore – A brief report

Nagapattinam, March 14th, 2013

There were total of 102 participants in this consultations were held between 10:30 am to 1:30pm. The consultations were conducted in the Collectorate, Nagapattinam. The following were the feedback obtained:

Mr. P. Gunasegar, District Revenue Officer, PMU, Chennai presided over the meeting. The Key Speakers were Mr. Syed Humayun District Revenue Officer, TPIU, Fisheries Department, Mr. S. Thanikachalam, Executive Engineer, Fisheries, Dr. S.R. Muthusamy, Consultant, Fisheries Department, Mr. M. Sambandam, Executive Engineer, Fisheries Department, Nagapattinam, Mr. B. Siva Kumar, Superintending Engineer, TANGEDCO, Nagapattinam and Mr. A. Narayana Murty, Executive Engineer, TANGEDCO, Chennai. The speakers gave a brief of the project and its components to the participants. Mr. Balamurugan, Environmental Specialist, PMU, Office of the OSD, Chennai, gave the details of ESMF to the participants. He asked the participants to make suggestions on the environmental and social issues of the project. The following suggestions were given by the participants.

Mr. Manoharan from Akkarapettai: Nagapattinam fishing harbour Diaphragm wall to be extended to 1.5 Km from its present length of 750 m given. Some Tsunami houses were not constructed as the beneficiaries do not have a title to the land and sometimes the areas of land is not adequate for building of houses. The government needs to give proper pattas to these persons who do not have pattas and consider building houses in smaller areas considering space constraints.

Mr. Devaiyan, Husband of Mrs. Parameswari, Panchayat Union President: Extension of bank assistance for houses to beyond 1000 m up to 1500 m. There is a need to connect the Tsunami habitations with main roads where habitation are not connected to the main road. Weathering course and tiles were not provided by certain NGOs who built Tsunami houses.

Mr. Sundaravadivel, Chairman, Thazhampet Panchayat Union: Lot of small villages are not having access to main roads due to broken bridges and absence of access roads. Solar panel lighting arrangements be made in the villages.

Mr. Kannaiyan, Retired Inspector of Fisheries, Akkarapettai: Existing cyclone shelters in bad condition. These need to be replaced with new shelters. House allocation was made by collector, but houses possession not given yet.

Mr. T.S. Sethupathy, Arcottuthurai: Compound walls for schools be built.

Mr. Jeevanandam, President, Vettaikaraniruppu: Freshwater solutions for the coastal communities to be identified where coastal saline water intrusion is prevalent. Bed dams be built to prevent salt water intrusion. The undergrounding of cables is appreciable, but do this without resorting to land acquisition.

Mr. Mahendrar Raja, President, Vadakkupoigainallur: Consider construction of houses upto 1500 m. Accelerate the construction of houses as presently there is a lot of delay. Provide water supply to newly built colonies and existing coastal villages.

Mr. Ramachandran, President, INTUC-Nagai Dist, Porayar, Tharangambadi: Link the roads from habitations to the main roads. Drinking water supply to be provided on priority. Construct bed dams to avoid salt water intrusion and groundwater recharge. Rehabilitate the existing tanks and ponds to their original capacity using traditional methods.

P.C. Kunasekaran, District Secretary, Tsunami Survivors Welfare Association, Kuttiyandiyur: The VHF communication system to be improved and sets to be provided to the fishermen. Provide safety boats at a rate of 1 per 2 taluks and allot a police officer and 4 to 5 local fishermen to each boat, to trace the boats to be rescued during emergencies.

Mrs. Ilavarasi Ramanathan, President, Pudupalli Panchayat: Give pattas to non-title holders. Undertake fresh enumeration of beneficiaries to provide houses. There are people residing on temple lands, these people need to be given pattas and houses be constructed for these people. The electric poles are not in good condition and these will collapse during any emergency. Additional evacuation shelters be built to accommodate more villages. Local fishermen who were fishing in local ponds and tanks are not getting good catch, they may be allowed to go into the sea for fishing.

Mrs. A. Poomani: Some of the vulnerable people were deleted from list. These need to be resurveyed and included in the beneficiaries list and be given houses.

Mr. Sugumaran, Vadakkupoigainallur: Relief to fishermen was not provided properly and adequately. A police station be located near the village as it is too far away now.

Mr. Ponnukutty, Vellakoil: New channel to be formed to berth their boats safely.

Mr. Pannirselvam, Kumarakudi: Now there is no proper drinking water supply to new houses built, an exclusive piped water system be provided.

Mr. Kaliyaperumal, Sembathotam, Nagore: A connecting road be provided from the habitations to the main road. About 120 persons from this area are not provided houses. Dredging to be done enabling the boats to be berthed at Nagore. The relief amount of Rs. 2,00,000/- was not provided to them properly.

Mr. Sivanandam, Melapattanamcheri: The houses are leaking, these houses to be provided with weathering courses and tiles. Out of the relief amount of Rs. 2,00,000/- only Rs. 1,00,000/- is given to them and the balance is yet to be given to them. Proper water supply to the habitations and new colonies to be provided.

Mr. Sivasankaran, Samannapettai: Out of 500 houses only 330 are constructed so far. The existing houses are in bad conditions, so the balance 170 houses be build urgently. There are more than 120 fishing boats in the village, a Fish Landing Center need to be built to accommodate these boats. The stream near the village can be connected to the sea.

Mr. Cheralathan, Perunthottam: Complaint/ Grievance redress takes lot of time.

Grievance Redress Mechanism: Presently the complaints/ Grievances are sent to the District Collectors and/or to the Chief Minister Cell. Sometimes they get a reply. Sometimes they had to send several remainders to get a reply. The participants suggest that the GRM be linked to the funding agency (The World Bank). A system needs to be put in place in such a way that the complaint/ grievances and the redress too will reach the funding agency to make redress fast. Escalation of complaints linked to time duration to be a part of the system. An exclusive help desk be provided to address grievances efficiently.

Several petitions were given to the DRO during the workshop. The Chair assured the participants that the Government would consider their suggestions. He informed that the following specific actions will be considered by Government:

- A process to rationalize the procedures and criteria will be taken up.
- Links to the main roads for evacuation during emergency to be reviewed through a study.
- For vulnerable not covered under VRCC, other government programs be explored for inclusion.
- Government will explore the possibilities of inclusion of remaining vulnerable under similar programs.
- Further initiatives related to sustainable fisheries infrastructure will be studied.
- Government is considering the proposals for taking up additional works as suggested by the participants.
- Government has allotted Rs. 30 Crores for taking up miscellaneous works.
- Strengthening the Grievance Redress Mechanism through MIS under CDRRP.

All the participants appreciated the public consultation. They want more consultations to be conducted more often to consider their feedback.

The workshop was declared as concluded with a vote of thanks.

Cuddalore, March 15th, 2013

There were total of 91 participants in this consultations were held between 10:30 am to 1:30pm. The consultations were conducted in the Grievance Redress Meetings Hall, Collectorate, Cuddalore. The following were the feedback obtained:

Mr. P. Gunasegar, District Revenue Officer, PMU, Chennai presided over the meeting. The Key Speakers were Mr. Syed Humayun District Revenue Officer, TPIU, Fisheries Department, Mr. S. Thanikachalam, Executive Engineer, Fisheries, Dr. S.R. Muthusamy, Consultant, Fisheries Department, Mr. Madanamohan, Chief Engineer, TNEB, Villupuram, Mr. Arul Gandhi, Superintending Engineer, TANGEDCO, Cuddalore and Mr. Narayana Murthy, Executive Engineer, TANGEDCO, Chennai, The speakers gave a brief of the project and its components to the participants. Mr. Balamurugan, Environmental Specialist, PMU, Office of the OSD, Chennai, gave the details of ESMF to the participants. He asked the participants to make suggestions on the environmental and social issues of the project. The following suggestions were given by the participants.

Mr. Thangamani, Sonamkuppam: There is a lot of sea erosion. The houses are abutting the sea line. House completed not completed yet. Existing Cyclone shelters needs repair and the management may be given to fisheries community. Very happy that this public consultation taking place and wants more such consultations and opportunities for interactions with government. Restoration of electric supply after Thane was done well. Fishing community will extend all cooperation to the government for any project. Provision of communication equipment to fishing community is necessary. All cooperation will be rendered to TANGEDCO during laying of underground cables.

While the existing Fish Landing Centers and port areas are not maintained properly, new ones are being proposed.

Every year about 10 persons die at the entrance to the Cuddalore fishing harbour due to silting up of approach and the compensation for the diseased is pending for more than 18months.

GPS to be provided to fishermen at subsidy by government.

Mr. Subramani, Devanampattinam: Communication equipment, such as walkie-talkie to be given to fishermen. Desiltation of approach canal to be taken up. A platform need to be built, on the eastern side of the proposed Cuddalore port, in order to get access to the sea. Evacuation shelters to be constructed at Devanampattinam and Rasapettai. Groyne which is now proposed for 300 m needs to be extended to covering all fishing villages.

Evacuation shelter to be provided in Devanampattinam. Houses to be provided to the remaining vulnerable.

Mr. Kuppusamy, Killai: Under RGRP, the housing construction is to be taken up by TNSCB.

Mr. Balu, Singarathopu: Buoyant lights to be provided for night visibility. Dredging to be taken up at Cuddalore fishing harbour. Dry dock facilities to be provided.

Mr. Ekambaram, Devanampattinam: Access to the sea is limited and is a problem for last 3 years. Under RGRP, though land is available, housing construction is yet to taken up. RMS wall is provided along the coast, steps to be provided at regular intervals. Drainage facilities to be provided for housing colonies.

Mr. Abimanyu, MGR Thittu: Dredging should be done as access to sea is limited due to silting. Connection road from MGR Thittu to adjoining habitation is to be provided for a length of 3 Km. 36 families are still residing in tents. Houses to be completed and handed over to these people. Requests to be made to Town Panchayats for issuing ration cards.

Mr. Annamalai, Sothikuppam: Villagers thank the government for construction of shelters, bridge and restoration of electric power supply after Thane. 450 houses to be constructed for remaining vulnerable people. Drainage facility to be provided to avoid stagnation of water in the habitations.

Mr. Sampath, Akkaraikori: Though land is available houses are not constructed for some people in Akkaraikori. Construction of 574 houses awarded to two contractors are delayed and this need to be accelerated. Electricity service connection is to be given to some of the houses.

Mr. Armugam, Nallavadu: About 170 houses need to be built for vulnerables, as their houses are very near to the sea, say about 20 m.

Mr. Mahalingam, Rasapettai: People thank the Government for providing houses to 150 persons, 150 more houses are required for the remaining vulnerables. A road needs to be built connecting Chittarapettai, Rasapettai and Devanampattinam. Steps need to be provided at Silver beach on the groyne. For protecting the silver beach, a groyne needs to be provided.

Mr. M. Veerappan, Samiyarpettai: The proposed Fish landing Center Samiyarpettai, is yet to be taken up. A fish auction hall needs to be built. A dyeing unit near the village is letting its wastes into the sea and polluting area. This needs to be stopped. Though land is available, construction of 225 houses is yet to be taken up.

Training was provided to fishermen at Fisheries Training Centre and those attended were given licences. This needs to be revived and continued.

Mr. Malarvannan, Samiyarpettai: A disaster preparedness center was provided at Samiyarpettai. After Thane, this is not functioning. This needs to be revived.

Training in disaster preparedness was provided by MS Swaminathan Foundation. Training on these lines to be provided.

Ms. Angel Catherine, Red Cross Society: As part of disaster risk reduction strategy, micro-insurance be introduced. The scheme is being implemented under IFAD.

Grievance Redress Mechanism: Presently the complaints/ Grievances are sent to the District Collector. Sometimes they get a reply. Sometimes they had to send several reminders to get a reply. Systems need to be put in place in such a way that the complaint/ grievances escalate after a particular time period. An exclusive help desk be provided to address grievances efficiently. Most of the participants want a monthly grievance redress meeting exclusively for fishermen to be conducted by Collector as in case of farmers.

The following specific actions will be considered by the Government:

- A process to rationalize the procedures and criteria will be taken up.
- For vulnerable not covered under VRCC, other government programs be explored for inclusion.
- Government will explore the possibilities of inclusion of remaining vulnerable under similar programs.
- Further initiatives related to sustainable fisheries infrastructure will be studied.
- Government is considering the proposals for taking up additional works as suggested by the participants.
- Strengthening the Grievance Redress Mechanism through MIS under CDRRP.

The workshop was declared as concluded with a vote of thanks.