



Tamil Nadu and Puducherry Coastal Disaster Risk Reduction Project (P143382)

SOUTH ASIA | India | Social, Urban, Rural and Resilience Global Practice Global Practice |
IBRD/IDA | Investment Project Financing | FY 2013 | Seq No: 11 | ARCHIVED on 02-Jan-2019 | ISR34901 |

Implementing Agencies: Department of Economic Affairs, Government of India, Tamil Nadu State Disaster Management Agency, Government of Tamil Nadu, Project Implementation Agency, Department of Revenue and DM, Government of Puducherry

Key Dates

Key Project Dates

Bank Approval Date: 20-Jun-2013

Effectiveness Date: 29-Jan-2014

Planned Mid Term Review Date: 18-Mar-2016

Actual Mid-Term Review Date: 25-Jul-2016

Original Closing Date: 31-Jul-2018

Revised Closing Date: 31-Mar-2020

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

Increasing the resilience of coastal communities in Tamil Nadu and Puducherry, to a range of hydro-meteorological and geophysical hazards along with improving project implementing entities' capacity to respond promptly and effectively to an eligible crisis or emergency.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components

Name

Vulnerability Reduction:(Cost \$224.60 M)

Sustainable Fisheries:(Cost \$82.00 M)

Capacity Building in Disaster Risk Management:(Cost \$12.40 M)

Implementation Support:(Cost \$18.20 M)

Contingent Emergency Response (Both from Tamil Nadu and Puducherry)

Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	● Moderately Satisfactory	● Moderately Satisfactory
Overall Implementation Progress (IP)	● Moderately Satisfactory	● Moderately Satisfactory
Overall Risk Rating	● Moderate	● Moderate

Implementation Status and Key Decisions

Tamil Nadu

The subcomponent on *resilient housing* is complete. Construction of 121 *Multi-Purpose Evacuation Shelters* has been completed. *Disaster Warning Announcement Systems (DWAS)* Units are installed in 421 sites, work in remaining sites to be expedited and the system is expected to be in operational phase at the earliest. Out of 4 priority packages for *Cyclone Resilient Electrical Network*, work is commenced in two packages. Package 2 will be awarded on obtaining of land clearance for switching stations and tendering for Package 5 has not been successful.



Under the subcomponent of *Fisheries Infrastructure*, substantial works has been completed except for the Mallipattinam Fishing Harbour (target date of completion is Dec 2018). Works in Punnakayal Harbour need to be assessed for stability and repair measures have been suggested based on technical studies. TNDof to finalize and activate the co-management plans and issue Government Order for Fisheries co-management framework. *Fisheries livelihood support* activities has tremendous potential for scaling-up. TNoDF to fast track the action plan and implement the activities as soon as possible. Under the *Seamless Wireless Communication facilities to TN Marine Fisheries* activity, construction of towers is under progress and obtaining of WPC license in progress. All activities are expected to complete by end of Dec 2018.

Under the Component Capacity Building in DRM, *Community Based Disaster Risk Management* activity is under implementation by SIRD. Training has been provided to approx. 300,000 people across 500+ coastal habitations. *Curriculum development for Disaster Risk Reduction in Schools* has been incorporated upto Grade XI. For Grade XII Disaster management subject will be in incorporated in Tamil, English and Geography subject and introduced in the next academic session. *Decision Support System* called as Tamil Nadu - System for Multi-hazard potential impact Assessment and Emergency Response Tracking (TN-SMART, Phase I) is commissioned. The tool is deployed in SEOC and was utilized in the recent cyclone and weather disturbance events. Proposal for *establishment of State level Disaster Management Institute* and *GIS Cell* for TNSDMA is still under consideration.

Puducherry

Work on heritage buildings, work shelters, culverts, improvement works in existing fish markets is in progress. Progress of work in *Cyclone Resilient Electrical Network* is close to completion. In was agreed in the last mission to construct a Electrical Emergency Control Room for which the bid documents are under preparation. Strengthening of Puducherry Fire & Emergency Services, State Level Emergency Operations Center (EOC) and Early Warning System for Revenue Department at Puducherry need to be expedited.

The progress in *Fishing Infrastructure* is satisfactory. The Modern Hygienic Fisk Market is operational. Outstanding issues including minor modification in the market (setting up of auction hall) is being taken up. Maintenance and upkeep of Work Shelters and other assets at Fish Landing Centre/Fishing Harbor in being addressed. DoF to review and device an action plan for maintenance and management of all assets financed under the CDRRP. Draft Guidelines for setting up of 3-tier co-management committee (village, district and state) prepared and submitted by DoF is under process for approval by the Government. Implementation of Livelihood Program and Establishment of Information Centres for fisher community is in progress.

Risks

Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	--	● High	● High
Macroeconomic	--	● Substantial	● Substantial
Sector Strategies and Policies	--	● Substantial	● Substantial
Technical Design of Project or Program	--	● Moderate	● Moderate
Institutional Capacity for Implementation and Sustainability	--	● Substantial	● Substantial
Fiduciary	--	● Substantial	● Substantial
Environment and Social	--	● Moderate	● Moderate
Stakeholders	--	● Moderate	● Moderate
Other	--	--	--
Overall	--	● Moderate	● Moderate

Results

PDO Indicators by Objectives / Outcomes



Increased resilience of coastal communities				
▶Increased community resilience and preparedness in coastal areas (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	8.00	8.00	100.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	Community Based DRM Programme is under implementation in 560+ coastal habitations. The programme includes conducting risk and vulnerability assessment and plan preparation at the hamlet level, formation of disaster management teams, training of the disaster management teams in specific operations (first-aid, shelter management, WASH, Search and Rescue etc), linking the communities with disaster warning alert systems/wireless communications & Multi-Purpose Evacuation Shelters. Close to 300,000 people have been trained on various aspects of CBDRM. The activity is underway and it is expected to complete the first stage implementation of CBDRM programme under CDRRP in TN by Dec 2018.			
▲Percentage of habitations with access to community managed emergency shelter (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	80.00	80.00	100.00
▲Percentage of households with Quality certified multi-hazard resilient houses (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	100.00	100.00	100.00
▲Percentage of coastal population covered by the early warning systems (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	65.00	65.00	100.00
▶Enhanced performance of livelihood opportunities from fisheries with increased safety at sea (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	90.00	90.00	100.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	<p>The project is undertaking fisheries livelihood support activities to build economic resilience in the vulnerable communities. Activities under the project also aims to broaden livelihood base to non-fisheries activities. Key project activities include establishment of fish kiosks, seaweed culture, cage farming and coconut shell craft production. the project is also encouraging the department to look for alternate livelihood proposals including: Eco-park, Aqua eco-tourism, lifeguard training program, skill up gradation of fisher youth in tourism and hospitality sector.</p> <p>The project aims to develop early warning network across the coastline of TN state through establishment of Disaster Warning Alert System across 450 locations and also provide wireless communication facilities to ensure safety of marine fisheries. In addition the project is also working towards establishment of a Potential Impact Assessment System and Emergency Response Tracking Tool which is a vital part of the end-to-end Early Warning System.</p> <p>Though the project has initiated a wide range of livelihood support activities, DoF has prioritized additional research studies to broader the scope of livelihood opportunities as well as expand the scope of the existing activities. The action plan prepared by DoF will take approx. 15-18months for implementation. In addition full scale commissioning of DWAS is due for the upcoming Northeast Monsoon. It is proposed to first operate in an experimental phase, incorporate the learnings and commission for full scale operation in the 2019 Monsoon Season. The project will meet the end target in a time frame of 18months.</p>			

▲Percentage of fishers with wireless communication facilities (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	100.00
▲Percentage of local fisheries co-management platforms formed and involved in FMPs (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	70.00	70.00	100.00
▲Percentage of villages having access to fishing related restored linkages/ infrastructure (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	90.00	90.00	100.00

Increased institutional capacity of project implementation entities to respond to crisis/emergency				
▶Improved multi-hazard resilient coastal infrastructure (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	95.00	95.00	100.00
Date	02-Jul-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	In addition to Fishing Infrastructure, the project aims to provide multi-hazard resilient permanent houses, evacuation and early warning infrastructure, construction of Multipurpose Evacuation Shelters, Resilient Electrical Network. While the multi-hazard resilient permanent houses and MPES are complete and being handed to beneficiary/put to use, early warning infrastructure will need close to six months for implementation and cyclone resilient electrical network (TN state) will need close to 18-20months for implementation.			
▲Percentage of coastal area with electrical cabling transferred underground (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	10.00	10.00	100.00
▶Increased institutional capacity for risk mitigation and response at State level (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	60.00	60.00	100.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	The project aims to build the capacity of TNSDMA, Revenue & Disaster Management Department, Dept of Fisheries, Electrical Utility Company, Department of Education, Fire & Emergency Services etc towards addressing disaster risk mitigation within their departments and also respond effectively in emergency situations. This is being achieved through implementation of specific activities and linking the deliverables (risk mitigation infrastructure, warning communication infrastructure, livelihood support activities etc) with the end users. Several of the activities are underway by the respective departments in terms of infrastructure creation and on the job training/orientation. TNSDMA is also planning to establish a state institute to further			

the capacity building works and training plan for all the key line agencies in the State. Based on the current progress, the project can achieve the end target in a span of 18-20 months.

Intermediate Results Indicators by Components

Vulnerability Reduction				
►Number of resilient houses reconstructed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	14,649.00	14,649.00	14,649.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
►Multi-hazard resistant electrical network created (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	900.00	900.00	1,850.00
Date	20-Jun-2012	11-Aug-2017	11-Aug-2017	31-Jul-2018
Comments:	The Resilient Electrical Network sub-component in Puducherry is nearing completion. In Tamil Nadu four packages has been tendered and out of the four, one has been awarded. The award of remaining three packages by TANGEDCO is due for Aug/Sept and it is likely to complete the works in a time frame of 18-20months.			
►Number of evacuation shelters created (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	121.00	121.00	121.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	The project has completed the civil works of 121 MPES. TNSDMA is formulating the guidelines for Shelter Management Committee and Guidelines for Operations and Maintenance of MPES.			
►Evacuation Routes laid (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	41.00	41.00	41.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
►No. of early warning systems installed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	403.00	403.00	450.00



Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	Disaster Warning Announcement System Central Unit (DWAS-C) at Chennai is complete and put under service. DWAS-DRC Unit at Tirunelveli is complete and put in use. DWAS-D District Unit equipment are installed in 12 districts and are to be tested after installation of DWAS-R Remote Units. Installation of civil and Electrical works is completed in 390 sites of 450 sites. Issues in pending sites: 6 new sites have to be identified, work to be taken up in 12 sites, 34 sites to be identified and handed over for undertaking civil and electrical works. Obtaining of WPC License action was initiated in 2014 and is being followed. all works are expected to complete by Sep 2018.			
►Number of Public buildings restored (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	3.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	Construction work in underway and work (Nehru Market at Karaikal and Mairie Building at Puducherry) is expected to complete by Mar/April 2019.			
►Roads rehabilitated, Rural (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	41.00	41.00	41.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
►Number of old bridges rehabilitated and reconstructed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	3.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	The restoration of the bridge work has not been initiated due to lack of fund allocation to the PIA Puducherry. PIA is discussing with Ministry of Home Affairs for allocation of funds to PIA Puducherry to undertake 11 priority projects (including restoration of two bridges).			
►Number of culverts reconstructed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	2.00	2.00	2.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
►Sub-projects with post-project community engagement or O&M arrangements (%) (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	80.00	80.00	100.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018



Comments:	Govt of TN and Govt of Puducherry is developing Guidelines for O&M of key infrastructure built under CDRRP (MPES, Early warning infrastructure etc). The target is to have the Guidelines in place by end of Dec 2018. Department of Fisheries is developing O&M Guidelines for Works Shelters, FLC, Fishing Harbor and allied infrastructure and also roping the Co-management mechanism to safeguard/maintenance of the assets. Guidelines will be in place by Dec 2018.			
▲Sub-projects that are expected to have a mechanism for post-completion operation (Number, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	70.00	70.00	100.00

Sustainable Fisheries				
▶Number of fishing related infrastructure works completed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	18.00	18.00	19.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	This sub component consists of seven works in TN: construction of fish landing centres at Nagore in Nagapattinam district and Portonovo-Annankoil in Cuddalore district; reconstruction and modernization of fishing harbor at Nagapattinam and Pazhayar in Nagapattinam district; providing permanent opening of Vellar river barmouth in Cuddalore district and Uppanar river bar mouth in Nagapattinam district and establishment of a tube ice plant cum chilling room facilities at Chinnamuttom, fishing harbor in Kanyakumari district, reconstruction and modernization of fishing harbor at Mallipattinam and permanent stability of coastal inlet at Punnakayal village. Work in Mallipattinam FH is expected to complete by Oct 2018. Punnakayal bar mouth requires stability analysis and based on the revised design considerations repair work shall be taken up by DoF. In Puducherry works include: Construction of Effluent treatment plant for Puducherry Fishing Harbor and Karaikal Fishing Harbor, Construction of Works Shelters etc. Construction of Work Shelters is under progress. All works are scheduled to complete by end of Dec 2018.			
▶Number of local fisheries co-management platforms formed and involved in FMPs (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	2.00	2.00	4.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018
Comments:	Co-management platforms are under formation in TN and Puducherry. A 3 tier mechanism in underway in both TN and Puducherry (Constitution of Village Level co-management Committees, District-Level Co-Management Council and State/Union-territory-level Co-Management Forum for setting up Co-Management Regime). Government Order elaborating the Terms of Reference and the constitution of the Committees at the three tiers in under discussion. The issue of the G.O is expected in the next quarter.			
▶Number of fishermen provided with communication network/equipment (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5,000.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018



Comments:

Civil infrastructure works in underway. Licensing arrangement for operations is under discussion and it is expected to commission the system within a time frame of 6months (latest by Dec 2018).

Capacity Building in Disaster Risk Management

►Number of habitations covered in CBDRM program (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	500.00	500.00	560.00
Date	20-Jun-2012	11-Aug-2017	11-Aug-2017	31-Jul-2018

Comments:

Work is under progress and on approval of the proposal by TNSDMA, State Institute of Rural Development (SIRD) will undertake the activities in remaining coastal habitations. It is expected to complete the CBDRM activities in remaining coastal habitations by Dec 2018.

►Number of districts where HTL pillars are installed (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	11.00	11.00	11.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018

►Establishment of a Centre for Disaster Management (TAMIL NADU) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018

Comments:

The proposal for establishing the state level institution for disaster management is under review by the Department. On approval the PMU will initiate the tendering process.

►Integration of multiple Emergency Operation Centre (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1.00
Date	20-Jun-2012	15-Jun-2018	15-Jun-2018	31-Jul-2018

Comments:

Efforts are underway in TN and Puducherry to establish Decision Support Systems in the State Emergency Operations Centre. TamilNadu has taken up implementation of Tamil Nadu - System for Multi-hazard potential impact assessment and Emergency Response tracking (TN-SMART). TN-SMART is due for experiment operations by Set2018 and full scale operations in the next monsoon season. Puducherry has prepared the project proposal for Strengthening of State EOC and Early Warning Systems. The proposal is under review and it is expected to complete the system development and integration within the extended phase of the project timeline.

Data on Financial Performance

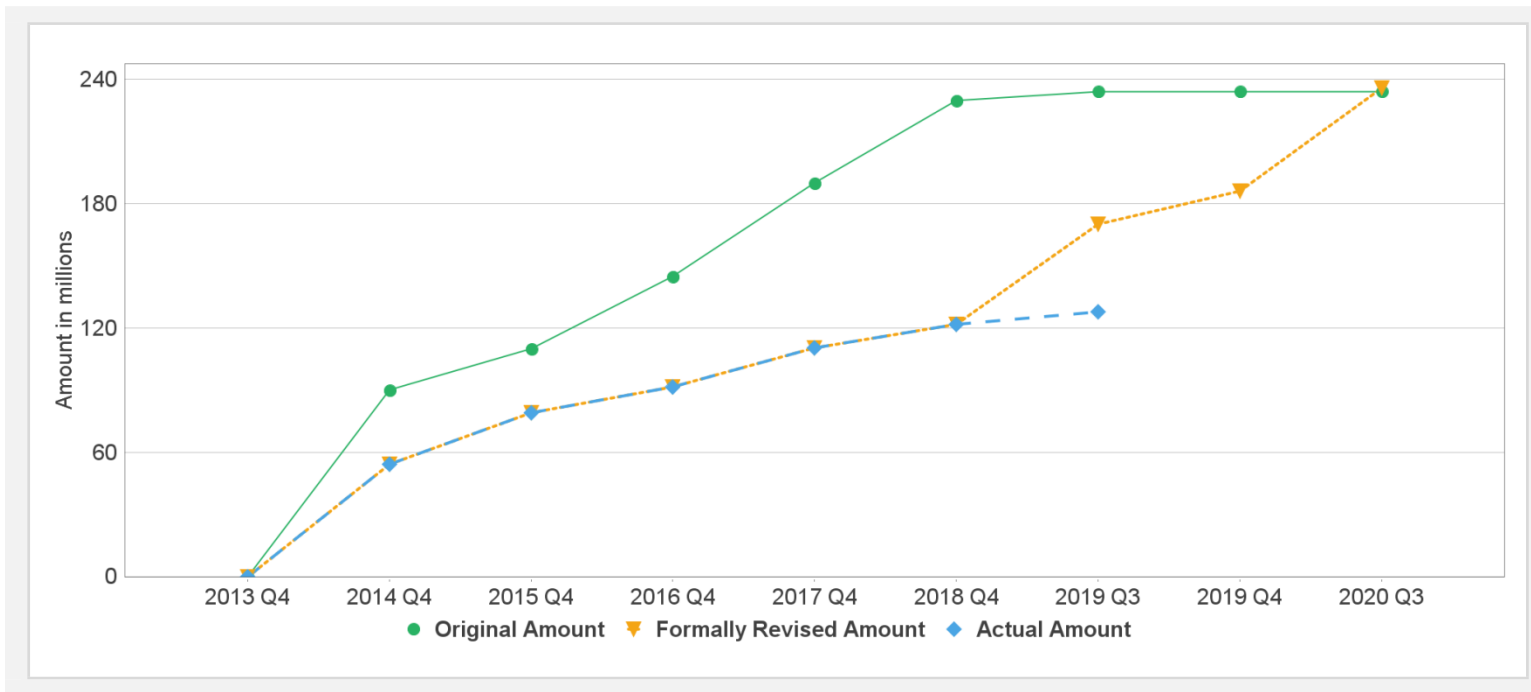
Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P143382	IDA-52790	Effective	USD	236.00	236.00	0.00	127.92	96.53	57%

Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P143382	IDA-52790	Effective	20-Jun-2013	11-Nov-2013	29-Jan-2014	31-Jul-2018	31-Mar-2020

Cumulative Disbursements



Restructuring History

Level 2 Approved on 06-Jul-2018

Related Project(s)

There are no related projects.