



National Cyclone Risk Mitigation Project-II (P144726)

SOUTH ASIA | India | Urban, Resilience and Land Global Practice |
IBRD/IDA | Investment Project Financing | FY 2015 | Seq No: 14 | ARCHIVED on 20-Jun-2022 | ISR51139 |

Implementing Agencies: Department of Economic Affairs, Goa: Water Resources Department, Gujarat: Gujarat State Disaster Management Authority, Karnataka: Department of Revenue and Disaster Management, Kerala: Department of Revenue and Disaster Management, Maharashtra: Department of Relief and Rehabilitation, National Disaster Management Agency, West Bengal: Department of Disaster Management

Key Dates

Key Project Dates

Bank Approval Date: 28-May-2015

Effectiveness Date: 09-Nov-2015

Planned Mid Term Review Date: 17-Sep-2018

Actual Mid-Term Review Date: 04-Jun-2018

Original Closing Date: 15-Mar-2021

Revised Closing Date: 15-Sep-2022

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

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

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

No

Components Table

Name

Early Warning Dissemination Systems:(Cost \$17.77 M)
Cyclone Risk Mitigation Infrastructure:(Cost \$181.18 M)
Technical Assistance for Multi-Hazard Risk Management:(Cost \$13.33 M)
Project Management and Implementation Support:(Cost \$16.12 M)

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	☐ Substantial	☐ Substantial

Implementation Status and Key Decisions

- **Component A - Early Warning Dissemination Systems:** In Goa and Kerala installation of towers is underway, while in Karnataka the initiation of EWDS works are delayed.
- **Component B – Cyclone Risk Mitigation Structure: Multi-purpose Cyclone Shelters - MPCSS:** 231 of 262 MPCSSs have been completed. For MPCSSs under construction, a realistic review of completion dates and close monitoring of progress are critical. For completed and nearly completed MPCSSs, formulating Cyclone Shelter Management and Maintenance Committees (CSMMCs), handing over MPCSSs to CSMMCs, preparing standard operating procedures including maintenance plans, and setting up Corpus Fund requires continued attention. Especially the upkeep and maintenance of completed shelters has been identified as an area that needs attention in



many states, Kerala has developed a very well-functioning approach that can serve as example. **Roads and Bridges:** Road works have been carried out in two states: Gujarat and Karnataka. While all planned 43 roads covering a length of 156.66 km have already been reported as completed, pending rectification works in one road package (Gujarat) still need completion. In Karnataka, 15 packages covering a length of 48 km were reported as completed and completion certificates were issued. The two bridge works in Karnataka are ongoing, although delayed and in need of close monitoring. **Saline Embankments:** In Karnataka the 7.8km saline embankment at Manikatta in Kumta Taluk, Uttara Kannada District shows a physical Progress of 60% and completion is expected by May 2022. For the two SEs in Maharashtra physical progress on Kachali Pitkari SE is reported as 79%, and for the Narvel Banavale SE as 75%, which is however delayed.. **Under Ground Cabling:** Works in Goa have been completed and commissioned. In Maharashtra, works are delayed with an average physical progress of 40% across all three ongoing works. The package in West Bengal was completed.

- **Component C - Technical Assistance for Multi-Hazard Risk Management:** The Dynamic Web Based Composite Risk Atlas and Decision Support Tool has been completed, state-level training is ongoing and an official launch is planned for end of May, 2022. Further activities have been advanced including the Vulnerability Assessment of structures, Benefit Monitoring & Evaluation and the Hydro Meteorological Resilience Action Plan. The development of the Comprehensive Multi-hazard Risk Financing Strategy (CMhrFS) is delayed and the consultant contract for the design of the National Seismic Risk Mitigation Program was cancelled.

Risks

Systematic Operations Risk-rating Tool

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

Results

PDO Indicators by Objectives / Outcomes

Reduce vulnerability to cyclone and hydro-meteorological hazards of coastal communities

► Proportion of the targeted coastal population covered by the EWDS (Percentage, Custom)

Baseline

Actual (Previous)

Actual (Current)

End Target



Value	0.00	25.00	25.00	75.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	<p>State-level EWDS works have progressed in Kerala and Goa, but are delayed in Karnataka: In Goa, 14 out of 60 sites are completed, 24 are in progress and 22 sites face challenges, needing alternative solutions. In Kerala EWDS is progressing very well and currently stands at about 70% physical progress. In Karnataka, initiation of EWDS works is severely delayed and implementation during the remaining project time is unlikely. Meanwhile, the deployment of the web dynamic composite risk atlas and decision support system (DCRA-DSS) at IMD developed under Component C of the NCRMP II has been completed and will be officially launched end of May. State-level trainings on utilisation of the tool are underway across different coastal states. The tool has already been in use and has enhanced access to precise and timely early warning and forecasts to the targeted coastal population. 25% of the targeted population has gained coverage under the NCRMP II work on these national EWD systems.</p>			
<p>► Proportion of vulnerable coastal population with access to Project financed emergency shelters (Percentage, Custom)</p>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	15.00	16.50	17.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	<p>With the completion of 231 shelters, 273,500 out of the targeted 295,050 persons have access to shelters.</p>			

<p>Increase State capacity to effectively plan and respond to disaster events</p>				
<p>► Results of the vulnerability assessment presented to officials of NDMA for investment planning (Yes/No, Custom)</p>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	<p>Multi-hazard risk modelling and assessment for all coastal states have been carried out and results presented to NDMA</p>			
<p>► Results of the comprehensive multi-hazard risk financing strategy presented to and used by officials of NDMA for policy making (Yes/No, Custom)</p>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	<p>The development of this strategy is delayed with the inception report currently being in the approval process at NDMA.</p>			

Intermediate Results Indicators by Components



Early Warning Dissemination Systems				
▶ Number of sirens installed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	200.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	State-level EWDS works have progressed in Kerala and Goa where the installation of towers is underway and expected to be finalized by September 2022. Karnataka is facing delays with this work. 200 sirens are expected to be installed across the three States and while 14 towers have been erected in Goa, they are yet to receive speakers.			

Cyclone Risk Mitigation Infrastructure				
▶ Number of multi-purpose cyclone and flood shelters completed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	207.00	231.00	262.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	231 MPCSS have been completed. One MPCSS has been dropped in Karnataka and for one MPCSS in Goa, discussions with the community are underway.			

□ Number of people with access to multi-purpose cyclone and flood shelters built or rehabilitated under the Project (Number, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	258,900.00	273,500.00	295,050.00

▶ Roads rehabilitated, Rural (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	205.00	205.00	205.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	Road works have been carried out in two states: Gujarat and Karnataka. In Gujarat, all planned 43 roads in total 157km are completed, yet it requires close attention for rectification of construction defects. In Karnataka, a total of 48 Km length was reported to be completed.			

▶ Number of bridges completed under the project (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	2.00



Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	Two bridges are under construction in Karnataka and need close monitoring to ensure completion within the project period..			
► Kilometers of embankments rehabilitated under the Project (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	7.80	30.00
Date	18-Mar-2016	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	Works are on ongoing on one embankment in Karnataka (2.5km completed) and two in Maharashtra (5.3km completed). Some spill-over beyond project completion is expected for Karnataka and Narvel SE in Maharashtra.			
□ Square kilometers protected by embankments rehabilitated by the Project (Square kilometer(km2), Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	29.00
► Kilometers of HT and LT lines moved underground (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	448.00	1,143.60	1,286.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	UGC works in Goa (1 package) and Maharashtra (3 packages) are ongoing, while the UGC works in West Bengal have been completed: Goa: 315 km Maharashtra: Satpati 46.8km, Alibag 133.5km, Ratnagiri: 148.3km West Bengal: 500km			

Technical Assistance for Multi-Hazard Risk Management				
► Multi-hazard risk assessment for selected areas completed (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
► Physical structural assessment of lifeline infrastructure completed (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	Yes	Yes



Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
► Probabilistic risk model for selected areas completed (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	Multi-hazard risk modelling and assessment for all coastal states and UT are advanced and presented to relevant government officials, while undergoing improvements through the experience of being tested during cyclone events.			
► Hydro-meteorological Resilience Action Plans completed (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	15-Dec-2014	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	The activity is advancing and expected to be completed by project closing date.			
► Number of training modules on disaster damage assessment implemented (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	14.00	14.00	8.00
Date	15-Jun-2015	08-Sep-2021	15-Apr-2022	15-Sep-2022
Comments:	Additionally, 15,681 participants have been trained on CBT (648 trainings) and 17,590 persons on SLT (1,021 trainings).			

Performance-Based Conditions

Data on Financial Performance

Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P144726	IDA-56930	Effective	USD	308.40	228.40	80.00	168.90	59.50	74%

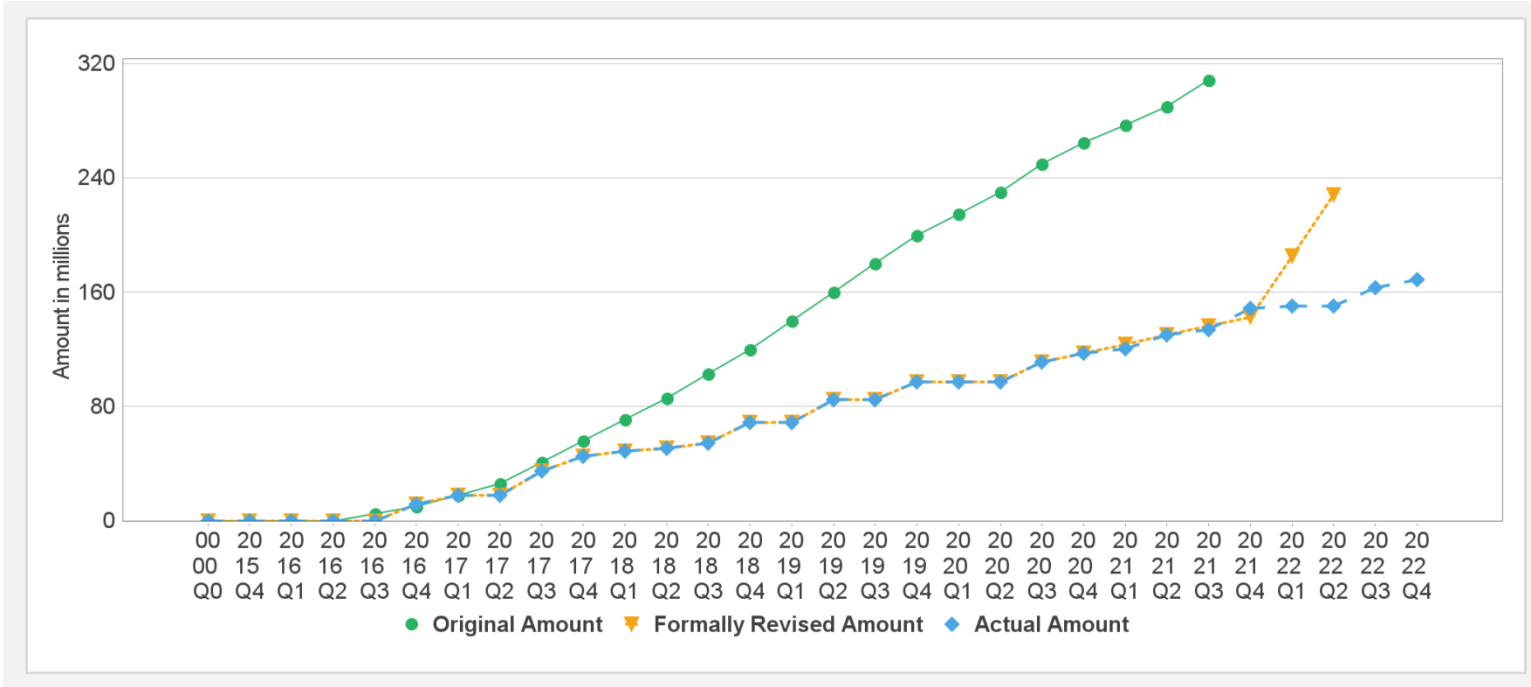
Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
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P144726 IDA-56930 Effective 28-May-2015 11-Aug-2015 09-Nov-2015 15-Mar-2021 15-Sep-2022

Cumulative Disbursements



Restructuring History

Level 2 Approved on 16-Feb-2021 ,Level 2 Approved on 03-Sep-2021

Related Project(s)

There are no related projects.