

India : The Resilient Kerala Program

1. Project Information

Project ID:	P000463	Instrument ID:	L0463A
Member:	India	Region:	Southern Asia
Sector:	Water	Sub-sector:	Water disaster resilience
Instrument type:	<input checked="" type="checkbox"/> Loan:125.00 US Dollar million <input type="checkbox"/> Guarantee	Co-financier(s):	World Bank
ES category:	B	Borrowing Entity:	Ministry of Finance, India
Implementing Entity:	Not Applicable		
Project Team Leader:	Yuka Terada (Responsible DG: Rajat Misra; Responsible Department: INF1)		
Project Team Members:	Jyosyula Siva Rama Krishna Sastry, OSD - Environment & Social Development Specialist; Bernardita Saez, Project Counsel; Aditi Khosla, Alternate Counsel; Yogesh Malla, OSD - Financial Management Specialist; Yangzom Yangzom, OSD - Procurement Specialist; Yuka Terada, Back-up PTL; Jinghui Li, Project admin		
Completed Site Visits by AIIB:	Sep, 2021 Virtual Kick off mission Dec, 2022 Joint mission with AFD, KWF, WB Participated virtually Feb, 2022 Implementation support mission,		
Planned Site Visits by AIIB:	Apr, 2023 Joint mission with AFD, KFW and WB		
Current Red Flags Assigned:	0		
Current Monitoring Regime:	Regular Monitoring		
Previous Red Flags Assigned:	0		
Previous Red Flags Assigned Date:	2022/06		

2. Project Summary and Objectives

The Program objective is to enhance the State of Kerala's resilience against the impacts of climate change and natural disasters, including disease outbreaks and pandemics.

The Program for Results (PforR) supports the implementation of the two key government programs – the Rebuild Kerala Development Program (RKDP) and the State Health Mission (SHM) – by adopting an integrated framework to enhance Government of Kerala (GoK)'s fiscal and institutional resilience against the impacts of climate change and natural disasters including disease outbreaks. The Program operates at two levels: across the State and in the districts adjoining the Pamba River. While system improvements, establishment of rules and norms and institutional building activities will apply to the entire State, activities that aim to demonstrate an integrated multi-dimensional resilience approach will focus on the Pamba River Basin and the districts along the river. The Program also supports the SHM, which aims to improve availability of and access to quality health care by people, especially for those residing in rural areas, the poor, women and children.

As a subset of the government programs covering the broad resilience agenda, the boundaries of the PforR have been defined to include the following high priority sectors under AIIB financing - Health, Road, Urban, Water, Resources Management (WRM), Agriculture, Disaster Risk Management (DRM) and Fiscal & Governance. The PforR is supporting two Results Areas (RAs) that contribute to the overall outcomes of the government programs - RA1: Strengthening transversal systems for resilience; and RA2: embedding resilience in key economic sectors.

3. Key Dates

Approval:	Jul. 15, 2021	Signing:	Aug. 10, 2021
Effective:	Dec. 17, 2021	Restructured (if any):	
Orig. Closing:	Dec. 31, 2026	Rev. Closing (if any):	

4. Disbursement Summary (USD million)

Contract Awarded:		Cancellation (if any):	0.00
Disbursed:	14.26	Most recent disbursement (amount/date):	2.60/Oct. 30, 2022
Undisbursed:	110.74	Disbursement Ratio (%) ¹ :	11.41

5. Project Implementation Update

As the Program is based on the PforR instrument, the Program funds will be disbursed by the WB/AIIB and AFD to Government of India (GoI) on the satisfactory achievement of the Disbursement-Linked Results (DLRs), which are the yearly targets of Disbursement-linked Indicators (DLIs), as verified by an Independent Verification Agent (IVA), following the agreed verification protocols. The Program includes following DLIs: DLI 1: Fiscal sustainability of GoK to cope with disease outbreaks and natural disasters is strengthened; DLI 2: Disaster-related adaptive safety net system of GoK is strengthened; DLI 3: Disaster risk financing and insurance capacity of GoK and vulnerable households in Kerala are improved; DLI 4: Urban local bodies developed and sanctioned risk-informed urban master plans and priority action plans; DLI 5: Climate risk information integrated into local body Disaster Risk Management (DRM) plans; DLI 6: Capacity to track and respond to zoonotic disease outbreaks of human importance in a timely manner; DLI 7: Integrated river basin management plan is developed for Pamba Basin, and implementation commenced; DLI 8: Farmer producer organizations have increased access to new and organized markets; and DLI 9: Core Road Network (CRN) is rehabilitated and/or maintained to meet resilient service standards in the Pamba Basin. AIIB finances DLI 1, 4, 5, 6, 7, 8, 9, and except for Disbursement Linked Indicator (DLI) 1 and 7, all the year-one targets have been achieved. DLI 1 year one target is expected to be achieved by March 2023. Achievement of DLI 7 may further be delayed depending on the passing of the legislation: River Basin Conservation and Management Authority (RBCMA) act.

¹ Disbursement Ratio is defined as the volume (e.g. the dollar amount) of total disbursed amount as a percentage of the net committed volume.

Components	Physical Progress	Environmental & Social Compliance	Procurement
DLI1: Sustainable Fiscal and Debt Management	A Debt Management Plan (DMP) has been revised and about to be finalized.	N/A	As agreed in the Program Action Plan, to address issues of transparency and accountability in procurement, a Notification on actions to be implemented by the Departments have been issued. Further, the mandatory use of e-procurement portal ensures transparency.
DLI4: Urban Local Bodies (ULBs) with sanctioned risk-informed Master Plans and Priority Action Plans	<p>The year-one target has been achieved, and the IVA verification has been completed. The allocated fund has been disbursed.</p> <ul style="list-style-type: none"> The Local Self Government Department (LSGD) has constituted a Steering Committee to work on the preliminary tasks for DLIs 4 & 5. A Project Implementing Unit (PIU) is established in Local Self Government Department (LSGD) to develop the guidelines for risk-informed Master Plans, formulation of State Urban Policy, operationalization of a State Urban Observatory and other related tasks. 	<p>Consultations have been organized on the draft Guidelines with select stakeholders during March, April and May 2022. Risk informed master plan preparation initiated in all ULBs' Department to share information on how trainings and planning processes are ensuring engagement of women and vulnerable groups.</p>	<p>Under DLIs4 and 5, another development partner has procured an expert to support these DLIs. To comply with the Program Action Plan to address issues of transparency and accountability in procurement, a Program Operation Manual was prepared and issued. A Pre-Qualification (PQ) for Consultancy Services for Capacity Development for Risk-informed and Effective Urban Planning and Policy Formulation was issued by the Rebuild Kerala Initiative (RKI) in June 2022, and the PQ evaluation has been completed.</p>
DLI5: Climate risk Information integrated into local Disaster Risk Management (DRM) plans	<p>The year 1 target has been achieved, and the IVA verification has been completed. In addition, allocated funds have been disbursed.</p> <p>LSGD has constituted a Steering Committee to work on the preliminary tasks for DLIs 4&5. A Project Implementing Unit (PIU) is established to develop the</p>	<p>Downscaled climate models provided to local governments. Trainings and planning processes to ensure engagement of women and vulnerable groups.</p>	<p>Under DLI5, ToR for development of a Disaster and Climate Action Tracking (DCAT) tool is being finalized. A Pre-Qualification (PQ) for Consultancy Services for Capacity Development for Risk-informed and Effective Urban Planning and Policy Formulation was issued by RKI in June 2022, and the PQ evaluation has been completed.</p>

	guidelines for Risk-informed Master Plans, formulation of State Urban Policy, operationalization of a State Urban Observatory and other related tasks		
DLI6: Capacity development of GoK to track and respond to zoonotic disease outbreaks of human importance in a timely manner through the One Health platform enhanced at the local level.	<p>The year one target has been achieved. The 1st State-level meeting on the One Health Program was conducted on December 10, 2021 under the chairmanship of the Minister of Health.</p> <p>Detailed guidelines for the One Health Program were issued on February 19, 2022. The government has planned to implement the One Health Program in all the districts of the State.</p> <p>Kerala Institute of Local Administration (KILA) has been identified as the nodal agency for capacity-building support. Preparatory tasks for the delivery of the training programs and preparation of the training modules are in progress.</p> <p>One Health Program was launched at the State-level and in all 4 Pamba Basin districts in May 2022.</p>	Consultations held in December 2021 by engaging key stakeholders to facilitate program ownership.	N/A
DLI7: Integrated River Basin Management Plan for Pamba Basin developed, and implementation commenced	A lumped mass model (a basic rainfall-runoff model) was developed to forecast the stream flow. The further development of the model for its institutionalization is in progress. The further development of the model includes: <ul style="list-style-type: none"> 1. The development of Python codes for the 	Stakeholder consultations for the development of flood data sharing protocol are in progress.	N/A

	<p>integration of data from various agencies into the system.</p> <p>2. Scrapping of data from the sources (APIs/FTPs) for each data set.</p> <p>3. Calibration and simulation of weather data and reservoir data. The validation of the flood forecast data in the model developed for the Periyar basin, which is the second-largest river basin of Kerala, is in progress. The validation findings will be used to develop the Flood Forecasting and Integrated Reservoir Operation System of the Pamba basin.</p>		
DLI8: Farmer Producer Organization (FPOs) have increased access to new and organized markets	<p>The Small Farmers Agribusiness Consortium has entered into agreements with the following Agribusiness Promoting Agencies: (i) AFC India Ltd for Pathanamthitta district; (ii) International Competence Center for Organic Agriculture (ICCOA) for Kottayam, Idukki and Alappuzha districts</p>	<p>Department of Agriculture (DoA) ensured representation of women farmers in Farmer Producer Organisations. DoA collected and shared gender disaggregated data on mobilized farmers</p>	N/A
DLI9: Number of KMs of Core Road Network (CRN) rehabilitated and/or maintained to resilient standards in Pamba Basin	<p>The year one target is achieved.</p> <p>Public Works Department (PWD) has launched the climate compatible Road Maintenance Management System (RMMS).</p>	<p>Climate enhancement study has been conducted with KFW funding. Climate module will be developed. Through surveys/ assessments presence of squatters, encroachers, non-titleholders will be identified prior to commencement of works for 7,000 kms of corridor. Orientation was provided in May 2022 by WB team on E&S measures in bidding documents, contracts as well as labour management procedures.</p>	<p>TOR for the procurement for upgrading of CRN (contract size not exceeding US\$40 million) will be reviewed by WB</p>

Financial Management:

On Fiduciary PAP, PMU has finalized TOR for engaging an audit firm to conduct the Program internal audit covering all Program participating departments in consultation with the World Bank. Local Self Government

Department issued the updated evaluation guidelines for incremental performance incentive grants. Under the Program, tenders must be facilitated through the e- procurement portal.

6. Status of the Grievance Redress Mechanism (GRM)

Kerala has an existing well-functioning central Grievance Redressal Mechanism.

The Program activities being multi-sectoral in nature, the time bound processes for bolstering the capabilities of key institutions for ensuring the inclusiveness in the sector/resource planning and implementation. On that note, consultations were held with the relevant departments to review and ascertain the existing grievance redressal mechanisms.

A working Standard Operating Procedures (SOP) for grievance redressal mechanism has been prepared.

7. Results Monitoring

The main body to coordinate the implementation is the Rebuild Kerala Initiative (RKI), established following the 2018 floods, to better prepare the State against future disasters and act as a vehicle to operationalize the RKDP. The RKI has been collaborating with and coordinating across state departments and technical agencies to implement the Program. Each DLI has a responsible department and technical agencies by whom local-level implementation has been closely followed up. The Program funds will be disbursed by the WB/AIIB as well as AFD to GoI on the satisfactory achievement of the DLRs, as verified by an IVA.

Project Objective Indicators #1

People are benefiting from local DRM plans and One Health Community Surveillance systems in Pamba Basin districts

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	State level DRM plans and emergency response protocols are in place, but local level preparedness to disasters and disease outbreaks is low.	N/A
Jun. 30, 2026	3.9 million people are benefiting from local DRM plans and One Health Community Surveillance systems in Pamba Basin districts.	N/A	N/A

Project Objective Indicators #2

People are benefiting from flood early warning services and flood protection measures in Pamba Basin

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	0.0	N/A
Jun. 30, 2026	4.8 million people are benefiting from flood	N/A	N/A

	early warning services and flood protection interventions in Pamba Basin districts.		
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Intermediate Result Indicators #1

ULBs developed and sanctioned risk-informed Urban Master Plans and Priority Action Plans

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	Urban Master Plans are not risk-informed; many are not sanctioned; and few are implemented	N/A
Jun. 30, 2023	Department of Town and Country Planning (DTCP) and KILA have developed and notified guidelines and training program for risk-informed master planning for ULBs.	N/A	N/A
Jun. 30, 2025	DTCP and KILA have provided training to at least 9 ULBs in Pamba Basin districts on risk-informed urban master planning.	N/A	N/A

Intermediate Result Indicators #2

Climate risk Information is integrated into local DRM plans

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	There is a lack of integration and use of local level climate risks to strengthen local level preparedness.	N/A
Jun. 30, 2023	KSDMA has downscaled climate models and provided this information to all LSGs in the State.	N/A	N/A
Jun. 30, 2024	200 LSGs in Pamba Basin districts have integrated climate information into the local body disaster risk management	N/A	N/A

	plans.		
Jun. 30, 2025	100 LSGs in Pamba Basin districts have been assessed through DCAT and achieved the target of 30% co-benefits.	N/A	N/A
Jun. 30, 2026	150 LSGs in Pamba Basin districts have satisfactorily completed local level emergency management exercises coordinated by KSDMA as per the updated local body disaster risk management plans	N/A	N/A

Intermediate Result Indicators #3

DCAT tool is developed and adopted for assessing climate adaptation and mitigation investments

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	No DCAT tool	N/A
Jun. 30, 2026	DCAT tool developed	N/A	N/A

Intermediate Result Indicators #4

Capacity of GoK is enhanced in disaster and climate risk-informed urban and DRM planning

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	GoK lacks capacity to integrate DRM and climate risk into planning and tools to enforce Urban and DRM plans as well as to monitor climate change co-benefits.	N/A
Jun. 30, 2023	200 LSG resource persons and functionaries are trained in climate-informed DRM investment planning, DCAT, and risk-informed urban master planning.	N/A	N/A
Jun. 30, 2024	700 LSG resource persons and functionaries are trained in climate-informed DRM	N/A	N/A

	investment planning, DCAT, and risk-informed urban master planning.		
Jun. 30, 2025	1200 LSG resource persons and functionaries are trained in climate-informed DRM investment planning, DCAT, and risk-informed urban master planning	N/A	N/A
Jun. 30, 2026	1700 trained LSG resource persons and functionaries are mobilized for climate-informed DRM investment planning, DCAT, and risk-informed urban master planning.	N/A	N/A

Intermediate Result Indicators #5

Capacity to track and respond to zoonotic disease outbreaks of human importance in a timely manner is strengthened through the enhanced One Health platform at the local level

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	No formal district level One Health coordination platform. No community based One Health surveillance protocols and systems.	N/A
Jun. 30, 2023	DoHFW has operationalized district level One Health coordination platform with trained and certified staff in Pamba Basin districts	N/A	N/A
Jun. 30, 2024	DoHFW has provided training to 250,000 LSG and Kudumbashree members on protocols for community based One Health surveillance in Pamba Basin districts.	N/A	N/A
Jun. 30, 2025	DoHFW undertakes routine joint disease outbreak	N/A	N/A

	investigations and inspections in 4 Pamba Basin districts.		
Jun. 30, 2026	At least 150 LSGs are implementing community based One Health surveillance in Pamba Basin districts.	N/A	N/A

Intermediate Result Indicators #6

Integrated River Basin Management Plan is developed and implemented for Pamba Basin

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	No Integrated River Basin Management Plan has been developed for Pamba Basin.	N/A
Jun. 30, 2023	WRD has developed flood forecasting and integrated reservoir operation systems for Pamba Basin.	N/A	N/A
Jun. 30, 2024	RBCMA is fully operational with technical and operational staff.	N/A	N/A
Jun. 30, 2025	WRD has adopted and operationalized integrated River Basin plan for Pamba Basin	N/A	N/A
Jun. 30, 2026	WRD has interfaced the WRM systems with KSDMA, DoA, PWD and LSGD.	N/A	N/A

Intermediate Result Indicators #7

CRN is rehabilitated and/or maintained to meet resilient service standards in the Pamba Basin

Year	Target	Actual	Comments, if any
Jan. 17, 2022	N/A	Zero km of CRN is meeting resilient service standards in the Pamba Basin	N/A
Jun. 30, 2023	CRN is rehabilitated and/or maintained to meet resilient service standards in the Pamba Basin	N/A	N/A
Jun. 30, 2025	Forward Works Program is generated	N/A	N/A

	for at least 6000 km of CRN with budgetary allocation.		
Jun. 30, 2026	At least 400 km of CRN is meeting resilient standards in Pamba Basin with sustainable asset management practices established.	N/A	N/A

Remarks:
