



Program Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 08-May-2019 | Report No: PIDA26752



BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
India	P169907	Resilient Kerala Program (P169907)	
Region	Estimated Board Date	Practice Area (Lead)	Financing Instrument
SOUTH ASIA	27-Jun-2019	Social, Urban, Rural and Resilience Global Practice	Development Policy Financing
Borrower(s)	Implementing Agency		
Republic of India	State of Kerala		

Proposed Development Objective(s)

The Program Development Objective (PDO) is to enhance the State of Kerala's resilience against the impacts of natural disasters and climate change.

Financing (in US\$, Millions)

SUMMARY

Total Financing	150.00
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DETAILS

Total World Bank Group Financing	150.00
World Bank Lending	150.00

Decision

B. Introduction and Context

Country Context

1. **India continues to be the world's fastest growing major economy.** After growing at 8.2 percent in FY16/17, the economy expanded at a somewhat slower pace of 7.2 percent in the following year. In the current fiscal year, growth is expected to remain at 7.2 percent. Data for the first three quarters suggest that growth has been broad-based, with an acceleration in industrial growth on the production side, and growing contributions from gross fixed capital formation and exports on the demand side. Meanwhile, the external headwinds that characterized the first half of the fiscal year have



subsidized. The decline in oil prices since October 2018 has allowed the current account deficit to return to relatively benign levels. Likewise, the large portfolio capital outflows that materialized from April 2018 onwards have reversed. Foreign reserves stood at US\$411.9 billion, as of end-March 2019 (equivalent to about 9.7 months of imports). Going forward, growth is projected firm-up and to stabilize at around 7.5 percent, thanks primarily to resilient private consumption, but also to a rise in exports of goods and services, and a gradual increase in investments. The current account deficit is projected to reach 2.6 percent in FY18/19 and to decline thereafter.

2. **With a steady decline in poverty since 1994 and the highest level of human development in India, Kerala's challenges are increasingly about the quality of public services and infrastructure.** Poverty levels in the State (8 percent) are among the lowest in the country¹. After 2005, Kerala grew and reduced poverty faster than many other states, with growth being driven mainly by services. Kerala's human development is among the highest in India, with 99 percent literacy, the highest life expectancy, and the lowest rates of infant mortality in the country. Although Kerala is home to a small share of India's poor, pockets within the State record a high incidence of poverty. While the level of economic and human development is high in Kerala, the development of quality and sustainable infrastructure is lagging. The existing infrastructure is highly vulnerable to disasters risks and climate change. Kerala's low levels of infrastructure investment has been partly a consequence of fiscal constraints. The challenges are increasingly about maximizing allocation of scarce resources and enhancing the management quality of public institutions. Addressing these challenges require greater focus on revenue enhancement, more prudent debt management and improved quality of public expenditures, as well as further strengthening of key public sector agencies to establish an ethos of organizational excellence.

3. **Kerala is exposed to hydrometeorological and geophysical hazards and faces challenges in building resilient communities and infrastructure in the context of climate change.** The State is vulnerable to increased intensity and frequency of flooding during the north-east monsoon period, water shortage during peak summer months along with a subsequent increase in urban temperature, and a potential increase in coastal erosion along the highly populated coastline due to rising sea levels. The State is prone to cyclone, monsoon storm surge, coastal erosion, sea-level rise, tsunami, flood, drought, lightning, landslides, land subsidence, and earthquake. Kerala has a high average annual precipitation of approximately 3,000 mm and approximately 90 percent of rainfall occurs during two monsoon periods. Almost 15% of the total area of the State is prone to floods. The high intensity storms during the monsoon months result in heavy discharges in the rivers, while the prolonged dry seasons jeopardize farmers' livelihoods and security of drinking water. Additionally, Kerala has a diverse topography ranging from the high ranges to midland and coastal plains and lowland areas near the coast that fall three meters below sea level. This combination of intense rainfall in the high ranges with a drastic elevation difference over a short distance causing peak runoffs, combined with flat terrain towards the western coast, presents the conditions for rapid flooding. These vulnerabilities came together during the heavy monsoon of 2018, which brought widespread flooding to several districts of Kerala and triggered thousands of small to big landslides, impacting almost 5.4 million people, one-sixth of the State's population.

4. **A Joint Rapid Damage and Needs Assessment (JRDNA) was conducted in September 2018 by GoK, supported by the World Bank and the Asian Development Bank (ADB).** The assessment estimated the recovery needs at US\$3.56 billion for priority sectors alone. The JRDNA formed the basis for the Post Disaster Needs Assessment (PDNA), led by the United Nations (UN) in October 2018, which estimated the total recovery needs at US\$4.4 billion. The sectors that suffered the worst damage were transport, rural infrastructure, livelihoods, housing and urban infrastructure. The losses were amplified owing to several factors, including inadequate water resources management, poor early warning systems and protocols, unplanned development in disaster-prone areas, poor-quality built infrastructure and unsustainable agriculture and irrigation practices.

¹ World Bank. 2017. India State Briefs - Kerala: Poverty, Growth, and Inequality.



5. **The proposed operation supports the policy and institutional reform program of the Government of Kerala (GoK) for enhancing the State’s resilience against disasters and impacts of climate change following the floods of August 2018.** The GoK has recognized that a traditional approach to recovery and reconstruction would not lead to comprehensive preparedness for future disasters, and floods should be taken as “a challenge and an opportunity to rebuild the State to ensure better standards of living to all sections of the society.” The World Bank will partner with the GoK over the medium term to strengthen state capabilities in systemic ways for a Green and Resilient Kerala. The primary focus of the State Partnership, the first of such State Partnerships as envisaged under the India Country Partnership Framework (CPF), would be to institute transformative policies and institutional changes that address the drivers of major natural disaster and climate change risks, as well as to ensure improved preparedness of the State against future disasters. The proposed programmatic operation, the first of a series of two Development Policy Operations (DPOs), will enable the State to mainstream long-term resilience across the State’s key areas of development. The proposed DPO is aligned with the Rebuild Kerala Development Program (RKDP) under the Rebuild Kerala Initiative (RKI) of the Government. The DPO would form the foundation of a State Partnership between the GoK and the World Bank. It would help launch the State engagement, and initiate medium term transformative shifts in policies, institutions, and programs in the State.

Relationship to CPF

6. **The PDO is fully aligned with the Country Partnership Framework (CPF),** which recognizes that improving disaster risk management (DRM) and resilience to climate change (Objective 1.5) and improving living conditions and sustainability of cities (Objective 1.2) are critical for facilitating resource-efficient growth and poverty reduction. For enhancing India’s competitiveness and ability to create more and better jobs, the CPF supports enablers such as increasing resilience of the financial sector and financial inclusion (Objective 2.2) and improving connectivity and logistics by making the transport systems more climate and disaster resilient (Objective 2.3). As a cross-cutting theme, the CPF pursues climate smart engagement to support India’s climate change mitigation and adaptation efforts across the portfolio. The CPF additionally recognizes that addressing complex challenges require reforms and engagement in multiple sectors to achieve success. The proposed operation adopts the CPF’s four catalytic approaches: (i) leveraging private sector; (ii) engaging a Federal India; (iii) strengthening public sector institutions; and (iv) supporting a Lighthouse India by leveraging experience and lessons learned from the other states where the World Bank has supported post-disaster recovery and reconstruction. The proposed operation directly contributes to the World Bank’s twin goals of ending extreme poverty and promoting shared prosperity by supporting Kerala’s recovery from the floods and aiming to protect the existing development gains by enhancing the State’s resilience against future natural disasters and climate change. The proposed operation builds on the World Bank’s existing and pipeline engagement in the state and catalyzes the first of its kind State Partnership Framework given the magnitude of response and support required in the aftermath of the August floods.

C. Proposed Development Objective(s)

7. **The Program Development Objective (PDO) of the proposed operation** is to support enhancing the State of Kerala’s resilience against the impacts of natural disasters and climate change.

Key Results

8. **Key results expected for this operation include:** (i) resilient recovery from 2018 floods is implemented in line with the RKDP priorities and guidelines; (ii) additional public and private financial resources are mobilized for resilient recovery; (iii) improved capacity for emergency, disaster, and climate risk management; (iv) improved river basin planning and water infrastructure operations management for climate resilience at the State level; (v) more resilient and sustainable



agriculture based on agroecological zones and enhanced agriculture risk insurance; (vi) improved physical and institutional resilience of the core road network; (vii) unified and more up-to-date land records in high risk areas; (viii) urban local bodies notify risk-informed master plans and start allocating funds for multi-year infrastructure investments in their annual plans; and (ix) improved water supply and sanitation services.

D. Project Description

9. **The Resilient Kerala Program DPO financed by the World Bank through the programmatic DPO is closely aligned with the vision, priorities and program of the RKDP and the RKI institutional framework.** The World Bank's support to RKDP, using resilience and sustainability as overarching themes, aims at supporting GoK in integrating the most critical crosscutting and sectoral policy and institutional actions that will put the State on a pathway towards a Green and Resilient Kerala. To reflect the multi-sector and integrated nature of recovery and resilience, the State Partnership with Kerala is based on a programmatic approach. While RKDP has a larger mandate, the Bank support will focus on crosscutting and sector areas that suffered the worst damage from the recent disaster and where the impact on enhancing resilience will be most significant and our support would provide the greatest value addition. The Kerala Urban Services Project, which is currently under preparation for Bank funding, has also adopted a resilience approach and would support investments of urban local bodies. The main platform of Bank support would be a programmatic series of two DPOs. Following these, depending on the nature and pace of the reforms, a third DPO or other forms of investment support could be possible. The reform process would be supported by a robust program of Technical Assistance (TA) from the Bank team and through external partners. This holistic and comprehensive approach has already started to build alliances among development partners. Depending on the pace of the reforms, GoK's priorities and the availability of funding the State Partnership may evolve in deepened TA or investment support in critical sectors.

10. The development objective of the proposed operation, as the first in a programmatic series of DPOs, and as the primary platform for building a State Partnership is to support enhancing the State of Kerala's resilience against the impacts of natural disasters and climate change. This objective will be achieved through policy and institutional reforms under two pillars:

- a) Pillar 1: Enhancing Kerala's Institutional and Financial Capacity for Managing Disaster Risks and Climate Change
- b) Pillar 2: Mainstreaming Disaster and Climate Resilience into Critical Infrastructure and Services

11. The PDO will be achieved by supporting policy and institutional reforms in the following key areas:

- a) **Enhancing Kerala's institutional and financial capacity for managing disaster risks and climate change.** The reforms are expected to (i) enhance technical and institutional capacity and (ii) to establish innovative sources of financing for disaster recovery, reduction and climate resilience. The priorities include defining policy framework towards resilient recovery and green development, maximizing finance for resilient and green development, and enhancing the State's capacity to protect the development gains through better preparing for disaster and climate risks. The prior actions under the first pillar are (i) adopting the RKDP for enhancing disaster and climate resilience through an inclusive and participatory approach, (ii) adopting the new flood Cess for financing resilient recovery efforts, and (iii) adopting new protocols for enhancing emergency preparedness and response capacity of various departments.
- b) **Mainstreaming disaster and climate resilience into critical infrastructure and services.** The reforms are expected to mainstream disaster risk reduction and climate resilience into key areas of infrastructure



development and service delivery. The priority areas include agriculture based on agroecology, integrated water resources management on a river basin basis, resilient road transport, secure and resilient land and cadaster records, improved urban planning and budgeting, and resilient and sustainable water supply and sanitation services. The prior actions under the second pillar are (i) establishing a cross-sectoral State level committee to draft a River Basin Management Act and establish the River Basin Management Authority, (ii) notifying the establishment of five agroecological zones and the reorganization of the Agriculture Department along agroecological zones, (iii) notifying the criteria for the determination of the core road network and adopting policies for resilient design, construction and maintenance of core road network, (iv) establishing a committee to revise the Town and Planning Country Act to make master plans risk-informed and to revise the annual expenditure planning and budgeting guidelines for urban local bodies to undertake multi-year municipal infrastructure investments, and (v) establishing a cross-sectoral committee to prepare the policy and institutional program for strengthening water supply and sanitation services and their resilience to disasters and impacts of climate change.

E. Implementation

Institutional and Implementation Arrangements

12. **The RKI will coordinate the monitoring and evaluation of the result indicators of the proposed operation.** The RKI will have an overall coordination role and directly monitor the implementation of the reforms, institutional actions and major recovery activities in line with the RKDP. The RKI will also be responsible for monitoring and evaluating the results of the policy reform program in coordination and collaboration with various state departments. Relevant sector departments such as Department of Finance, PWD, LSGD, SDMA, WRD and KWA, will have the primary responsibility to implement the structural reforms under the coordination of the RKI as described in this program document and monitor their respective sectoral result indicators. The change process will be supported by close monitoring and a strong multi sector technical assistance support from the Bank, which would be part of broader State Partnership with Kerala.

F. Poverty and Social Impacts and Environmental Aspects

Poverty and Social Impacts

13. **A Rapid Poverty and Social Impact Assessment (RPSIA) of the proposed operation concludes that the reforms will generate significant positive social effects especially for the poor and vulnerable groups.** The RPSIA was conducted during February to March 2019 based on a desktop review and interviews with key stakeholders including the State and Panchayat officials, academia and female beneficiaries (e.g., leaders, STs, fishing community) of Kudumbashree, the State's initiative for poverty eradication and women's empowerment. The RPSIA assessed the socioeconomic baseline and vulnerability mechanism of poor and disadvantaged groups in Kerala. The activities to be undertaken under this DPO are expected to benefit and support vulnerable groups including women, elderly, persons with disability (PWDs), SCs and STs, migrant workers from other Indian states, and fishermen living in coastal areas. The RKDP is gender informed to integrate women's needs and their knowledge as resilience champions. Accordingly, all future disaster resilience plans, urban master plans and similar plans and strategies supported under the DPO will be gender informed and will take into account specific needs of women for shelter, safety, and sanitation in times of disaster.



Environmental Aspects

14. **A Rapid Policy Strategic Environmental Assessment (RPSEA) of the proposed operation concludes that the reforms will generate significant positive environmental effects.** The RPSEA was conducted by the Bank team during February to March 2019 based on a desktop review and meetings with line departments, Directorate of Environment & Climate Change (DOECC) and the Forests Department and was informed by the Rebuild Kerala Development Program (RKDP) prepared by the GoK. The GoK has carried out public consultations on the RKDP which includes all reforms supported under this operation and other areas that the GoK plans to take action. The Bank's assessment focused on the environmental and natural resources implications of reforms and the GoK's institutional capacity. The RPSEA concludes that the reforms will not have major negative impacts on the environment and forests as they will integrate principles of environmental sustainability. The RKDP includes a cross-cutting sector note on Environment and Climate Change led by the Departments of Environment and Forests. The reforms will support the preventing the occurrence of similar scale damages and environmental protection from future events. The other sector reforms will also contribute to positive environmental effects. For instance, river basin management will lead to environmentally improved flow of soil and better flow of silt to the sea. This will have a positive impact on conserving the beach sand, an important coastal resource. Also, the agroecological management approach will reduce the pressure on the land resources. The main sector reforms that will have bearing on forests pertain to water resources and roads. Both sectors have reforms that embed sound environmental principles that will support rather than negate. For instance, the introduction of green, climate-resilient road construction practices such as better slope protection and strengthened stormwater management particularly in the hilly ranges will have a positive contribution to reducing landslide risks.

G. Risks and Mitigation

15. **Overall, the operation faces substantial risks to achieving its development outcomes.** Especially, risks associated with Political and Governance, Sector Strategies and Policies, Technical Design of the Program, Institutional Capacity for Implementation and Sustainability and Stakeholders are considered substantial as discussed below. The risks associated with macroeconomic situation, fiduciary, environment and social are rated as moderate.

16. **The RKDP covers multi-sectoral reforms and ensuring sectoral coherence and coordination will be a challenge.** The RKI was set up for this purpose to ensure smooth coordination and implementation of the reforms among multiple departments. Furthermore, each committee that will be established to draft policies and Acts in the water resources management, WSS, urban, and transport sectors will be represented by multiple departments to ensure coherence. The multi sector nature of the reforms introduce additional challenges in terms of messaging and communication from the GoK. High-level monitoring of the RKDP by the Chief Minister's Office and the inclusive and streamlined RKI institutional modality would provide the enabling environment for the proposed reform agenda.

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APPROVAL

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