



Program Information Document (PID)

Concept Stage | Date Prepared/Updated: 05-Nov-2019 | Report No: PIDC28102



BASIC INFORMATION

A. Basic Project Data

Country India	Project ID P172481	Project Name India Dam Safety Program (P172481)	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Board Date Sep 01, 2020	Practice Area (Lead) Water	Financing Instrument Development Policy Financing
Borrower(s) Department of Economic Affairs	Implementing Agency Ministry of Jal Shakti		

Proposed Development Objective(s)

The development objective is to enhance dam safety in India by supporting the establishment of a robust institutional structure for dam safety at the Central and State levels.

Financing (in US\$, Millions)

SUMMARY

Total Financing	200.00
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DETAILS

Total World Bank Group Financing	200.00
World Bank Lending	200.00

Decision

The review did authorize the preparation to continue

B. Introduction and Context

Country Context

- The proposed operation supports the Government of India’s (GoI) ambitious program for ensuring the safety of the country’s over 5200 large dams.** Dams are a vital part of the country’s core economic infrastructure, serving to capture and store surface runoff for productive purposes, including drinking and industrial water supply, irrigation and electricity, as well as improving flood management and moderating the impacts of droughts. However, the ability of existing dams to provide critical functions while safeguarding public safety has been increasingly impaired due to the aging of infrastructure, backlog in maintenance, damaged structures, inadequate instrumentation and monitoring,



deficient reservoir operation practices, and inadequate regulatory and operational safety measures. Greater unpredictability of extreme weather events associated with climate change is further exacerbating these dam safety issues. Over the past few decades, GoI has invested increasingly significant effort and resources in ensuring the safety of India's dams under what is gradually evolving into a national program for dam safety. The proposed programmatic operation of US\$ 200 million, the first in a series of two Development Policy Operations (DPOs), will support dam safety policy reform at the Central and State levels to improve the safety of India's dams.

2. **The proposed operation would bolster the ambitious reforms envisioned in the Dam Safety Bill, 2019 and build on the dam safety improvements achieved over the past decades.** The enabling framework for India's national program for dam safety is the National Dam Safety Bill, 2019, which sets forth stronger requirements for dam safety than ever before and. It provides for the constitution of various agencies at the Central and State levels and specifies their duties and functions, including conducting inspections and collecting data, implementing emergency action plans and managing disasters, undertaking dam safety evaluations, and implementing other dam safety measures. Under the provisions of the Bill, dam owners would have significant responsibilities for dam safety and, for the first time, could be penalized for failing to comply with directives of the agencies established under the Bill.
3. **The proposed series of DPOs would support actions that can be accomplished in the short term to set the stage for the envisioned institutional arrangements under the Bill.** The Bill provides for the time-bound establishment of various institutions at the Central and State levels that would be responsible for dam safety. Some of these already exist but do not currently carry out all the functions stipulated in the Bill, nor do they have the same powers. The proposed operation is designed to support the transition from the current institutional set-up to that envisioned under the Bill. In the medium term, the DPO would support additional mechanisms to promote sustainable financing of dam safety. The proposed programmatic DPO would complement the World Bank's current investment lending in the sector.
4. **India's macroeconomic policy framework is considered adequate for the proposed DPO.** Monetary and fiscal policy management have remained prudent even in the face of short-term pressures. Structural reforms, including efforts to address financial sector weaknesses are expected to pay off over time. In recent years, the monetary policy framework has been strengthened. While fiscal consolidation is proving to be slower than anticipated, especially at the Central level, it is noteworthy that India's States have been increasingly prudent fiscally in recent years. Moreover, the 15th Finance Commission is expected to mandate a fiscal consolidation glide path for both the Center and each State that will provide an anchor for fiscal policy in the coming years. Debt and deficit levels are relatively high, but ample domestic funding is available and refinancing risks are moderate. India's exposure to external volatility has increased in recent years, but so have buffers given high reserve levels and limited external financing needs.

Relationship to CPF

5. **The proposed operation fully supports the focus areas and objectives of the India Country Partnership Framework (CPF) FY18-22.** The proposed DPO directly contributes to the first CPF focus area of resource efficient growth and to objective 1.5 to improve disaster risk management. The proposed operation also aligns with the CPF's approaches for 'smarter engagement,' specifically by: (i) engaging a 'federal India' by working with State governments; (ii) focusing on strengthening public sector institutions to improve effectiveness and for sustained performance of dam operations and management; and (iii) promoting innovation and learning for the benefit of all States by, for example, establishing twinning arrangements between States to share experience in implementing the reforms. The proposed operation also supports the CPF's cross-cutting theme of pursuing climate-smart engagement by helping India ensure that dams safely provide buffering against floods and droughts. The proposed operation builds on the World Bank's current ongoing



support to India's national dam safety program, which began in 2010 through the Dam Rehabilitation and Improvement Project – 1 (DRIP-1), originally totaling US\$ 279 million and recently supplemented with Additional Financing of US\$ 137 million. A subsequent second phase of DRIP is also under preparation.

C. Proposed Development Objective(s)

6. **The development objective of the proposed operation**, as the first in a programmatic series of two DPOs, is to enhance dam safety in India by supporting the establishment of a robust institutional structure for dam safety at the Central and State levels. To achieve the PDO, the proposed operation would support two key pillars of the government's reform program: (i) enhancing Central government institutional capacity for dam safety; and (ii) enhancing State government institutional capacity for dam safety.

Key Results

7. **The expected results are a sound institutional framework at the Central level for dam safety in the country, a substantial strengthening of the institutional arrangements for dam safety at the State level, and more transparent and sustainable financing of dam assets.** The State-level Prior Actions are critical to paving the way for securing dam safety because: (i) water resources management is a 'State subject' and so under the jurisdiction of the States; and (ii) the vast majority of large dams in India are owned and managed by the States. State-level Prior Actions and Triggers work in tandem with those at the Central level, so that the two-tiered institutional structure for dam safety will be fully in place once all are met.

D. Concept Description

8. The objective of Pillar 1 is to establish a robust institutional structure for dam safety at the Central level. The Prior Actions for the proposed operation are as follows:
 - *Dam Safety Bill submitted to Rajya Sabha (Upper House of Parliament) for consideration.* The Bill was passed by India's Lok Sabha (Lower House of Parliament) in August 2019. The aim is the passing of the Bill by the full Parliament, but as a matter of national sovereignty, this formulation is not appropriate as a Prior Action.
 - *Committee established to draft the Rules and Guidelines for the (approved) Dam Safety Bill.* The committee will be formed under the Ministry of Jal Shakti.
 - *Notification of Reconstituted National Committee on Dam Safety (NCDS).* The Dam Safety Bill specifies that the existing NCDS must be reconstituted anew with an expanded mandate to include: developing dam safety policies and recommending necessary regulations, analyzing the causes of dam incidents and failures and suggesting remedial measures, evolving approaches for risk assessment and risk management, coordinated reservoir operations of cascading dams, and strategic supervision of dam rehabilitation programs that are executed in the States through Central or externally aided funding.
 - *Conversion of Central Dam Safety Organization (CDSO) to National Dam Safety Agency (NDSA) notified.* The Dam Safety Bill specifies that the existing CDSO must be converted to an NDSA which will be empowered to implement the policy, guidelines and standards developed by the NCDS for proper surveillance, inspection and maintenance of dams.
9. The objective of Pillar 2 is to establish a robust institutional structure for dam safety at the State level. The Prior Actions for the proposed operation are as follows:
 - *Notification of State Dam Safety Organizations (SDSOs) in four States.* SDSOs will act as independent agencies that supervise dam owners as mandated under the Dam Safety Bill.



E. Poverty and Social Impacts, and Environmental, Forests, and Other Natural Resource Aspects

Poverty and Social Impacts

- 10. The impacts of the proposed operation on poverty and society are expected to be overwhelmingly positive** in terms of building the institutional framework and capacities to manage dam assets such that they provide the intended services. Women will be actively encouraged to take leadership roles in dam safety institutions, as is already happening in Kerala and Uttarakhand where women engineers occupy decision-making positions. Institutional reforms may cause public concern, particularly amongst communities vulnerable to the consequences of potential dam failure, including the poor and vulnerable. Outreach efforts by dam owners to all such stakeholders will communicate the benefits of institutional reforms for strengthening dam safety, as will the preparation of Emergency Action Plans that are required under the Bill. The government of India has adequate policies, programs, and capacities to address the needs of vulnerable groups, manage risks and enhance the positive impacts of the proposed operation. As part of preparation, a PSIA will be conducted to review current hiring policies; ascertain perceived risks and impacts amongst communities including women and other vulnerable groups; and identify other gaps in policies, programs, and capacity that require enhancement, if any. The findings will inform the design and roll-out of the institutional framework.

Environmental, Forests, and Other Natural Resource Aspects

- 11. The reforms supported by the proposed operation are expected to have positive impacts on environment, forests and natural resources.** The prior action on transitioning the Central Dam Safety Organization to a National Dam Safety Authority would include introduction of new multidisciplinary units, including environmental specialists, to ensure that environmental aspects are mainstreamed in dam management. Additionally, State Dam Safety Organizations would be staffed by trained environmental specialists. The World Bank has assessed the Government of India's regulatory systems – including environmental impact assessment of dams, forests and bio-diversity, air, water and noise control acts and regulations – and found them to be adequate to manage any negative environmental effects of the reforms that could arise. The role of environmental specialists will be adequately addressed in the new Central and State institutions, and environmental and safety assessments of all dams will be conducted by Dam Safety Review Panels in line with World Bank requirements. In addition, the proposed operation will help to address vulnerabilities related to climate change and to build the country's climate resilience. With projections of increasing unpredictability, intensity, frequency, and magnitude of extreme events (droughts and floods) due to climate change, the need for ensuring safe and secure storage takes on a greater urgency. Enhancing institutions for dam safety is thus central to the climate resilience agenda.

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APPROVAL

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