Dam Rehabilitation and Improvement Project

Dam Rehabilitation and Improvement Project (DRIP)

After China and the United States of America, India ranks third in the world with 5334 operational dams and 411 under construction. Maharashtra has the most dams, with 2354, making it the state with the most dams in India.

India embarked on ensuring the country's water security, which led to the six-year DRIP project. The Central Water Commission and the Ministry of Water Resources initiated the project proposal to improve selected dams' functionality and working performance.

Dam Rehabilitation and Improvement Project [Phase I – 2012]

State	No. of Dams
Tamil Nadu (WRD & EB)	107
Madhya Pradesh (WRD)	29
Kerala (WRD & EB)	28
Orissa (WRD)	26
Karnataka (WRD)	27
Damodar Valley Corporation in Jharkhand	3
Uttaranchal Jal Vidyut Nigam Limited in Uttarakhand	2

Dam Rehabilitation and Improvement Project Phase 2

Dam Rehabilitation and Improvement Project, Phase II is being co-funded by two multilateral funding Agents - AIIB which stands for World Bank and Asian Infrastructure Investment Bank, with funding of US$ 250 million each.

- The important measures that DRIP-2 will support include: Flood forecasting systems and implementation of Emergency Action Plans.
- It will be enforced in roughly 120 dams across several Indian states through the Central Water Commission (CWC).

The budget pattern of scheme is:

- 50:50 (Central Agencies).
- 70:30 (General Category States).
- 80:20 (Special Category States).

Dam Rehabilitation And Improvement Project - Phase II and III

The Cabinet Committee on Economic Affairs sanctioned the Dam Rehabilitation and Improvement Project on October 28, 2020, under the direction of Prime Minister Narendra Modi.

- This agenda will be executed over 10 years, separated into two phases, i.e., April 2021 to March 2031.
- The project is sponsored by World Bank and Asian Infrastructure Investment Bank (AIIB).
- The Government plans to preserve more and more water resources in the country with the involvement of more states and Agencies.

The project intends to protect 736 dams across India in two phases.

Dam Rehabilitation and Improvement Project [Phase II & III]	
No. Of Dams	State/ Agency
31	Andhra Pradesh
2	Bhakra Beas Management Board (BBMB)
5	Chhattisgarh
5	Damodar Valley Corporation
2	Goa
6	Gujarat
35	Jharkhand
41	Karnataka
28	Kerala
27	Madhya Pradesh
167	Maharashtra
2	Manipur
6	Meghalaya
36	Odisha
12	Punjab
189	Rajasthan
59	Tamilnadu
29	Telangana

39	Uttar Pradesh
6	Uttarakhand
9	West Bengal

Significance of Dam Rehabilitation And Improvement Project PIB

Given below are some of the points explaining the significance of the project. The dam rehabilitation and improvement project have been necessary for generating more jobs, improving dam safety, reducing floods in the county, and even tackling climate change.

Employment Generation:

Dam safety rehabilitation and improvement project were likely to develop employment opportunities equivalent to approximately:

- 2,50,000 person days for working professionals.
- 10,00,000 person days for unskilled workers.

Improving Culture of Dam Safety in the Country:

It will allow the Indian dam proprietors to gear up their human resources to control many essential actions envisaged in the suggested Dam Safety Legislation.

Aging of Dams:

Aging water infrastructure: An emerging global risk, over 1,000 large dams in India will be around 50 years old in 2025, and such aging dams across the world pose a growing hazard according to a United Nations (UN) report.

This scheme concentrates on lowering the threats of dam collapse and assuring the safety of individuals, riverine ecology, and property located downstream of the selected dams.

Flood Mitigation:

Many dams are critical in reducing floods, with the average annual cost of floods in India calculated at US$7.4 billion. Their loss could pose severe hazards to downstream societies.

Will Aid in Tackling Climate Change:

By maintaining the livelihoods and food safety of Indians depending on farming and helping farmers pump groundwater, thereby lowering energy consumption and greenhouse gas emissions.

Number of Dams in the Country:

India ranks third globally after China and the United States of America, containing 5334 large dams. Additionally, nearly 411 dams are under construction at present.

- India even has several thousand smaller dams.
- These dams are essential for securing water security.
- Indian dams and reservoirs play a critical role in the financial and agricultural growth by storing roughly 300 billion cubic meters of water yearly.

Revisions in Dam Rehabilitation and Improvement Project

The first phase of DRIP included 223 dams and improved them in context to safety and performance. The first phase implemented the Dam Health Rehabilitation Monitoring Application

(DHARMA), the first time artificial intelligence software was used to monitor the health of dams. The first phase was a great success and closed in March 2021.

Year	Revisions	Cost in INR
April 2012	Proposal of funding for improving efficiency and safety of dams	2100 crore
June 2018	Approval of revised cost and extension of 2 years for the Dam rehabilitation and improvement project	3466 crores
October 2020	Approval of revised cost for DRIP Phase II and III, which will be implemented over 10 years from April 2021 to March 2031	10,211 crores

The success of early DRIP led to the proposal and approval of phases II and III of DRIP.

- 736 dams will be covered in the project in two phases.
- The World Bank and Asian Infrastructure Investment Bank (AIIB) will fund the DRIP phase II-III.
- The phases will be commenced over 10 years, from April 2021 to March 2031
- The loan agreement starts for 10 states: Gujarat, Meghalaya, Manipur, Madhya Pradesh, Chhattisgarh, Odisha, Rajasthan, Maharashtra, Kerala, and Tamil Nadu.

Objectives of DRIP Phase II and III

Dams in India are essential for sufficing the water needs of the country. The DRIP phase I and II aims to enhance the safety and resilience of the dams with the following detailed objectives.

- Proper and regular maintenance and correction of structural deficiencies of the dams.
- It ensures the strengthening of the dam structures and reduces the chances of collapsing due to the aging of dams.

- Enhancing the technical efficiency of the dams.
- Implement rules and regulations to follow a structured way of operating the dams.
- It would ensure that the dams work smoothly without any glitches.
- Enhance the coping capabilities and resilience against the increased threat of climate change by the implementation of emergency action plans.
- With the Dam Rehabilitation and Improvement Project, India is moving ahead with a vision to improve water security in the country.