



# Project Information Document (PID)

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Concept Stage | Date Prepared/Updated: 15-Nov-2021 | Report No: PIDC32972



**BASIC INFORMATION**

**A. Basic Project Data**

|                                                      |                                          |                                                         |                                                                                                    |
|------------------------------------------------------|------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Country<br>India                                     | Project ID<br>P177876                    | Parent Project ID (if any)                              | Project Name<br>West Bengal Accelerated Development of Minor Irrigation Project Phase II (P177876) |
| Region<br>SOUTH ASIA                                 | Estimated Appraisal Date<br>Apr 04, 2022 | Estimated Board Date<br>Jun 21, 2022                    | Practice Area (Lead)<br>Water                                                                      |
| Financing Instrument<br>Investment Project Financing | Borrower(s)<br>Republic of India         | Implementing Agency<br>DWRID, Government of West Bengal |                                                                                                    |

**Proposed Development Objective(s)**

The Project development objective is to improve access to water resources and to enhance the management of water in order to augment the production of agricultural commodities in the project area in West Bengal.

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

|                           |        |
|---------------------------|--------|
| <b>Total Project Cost</b> | 211.00 |
| <b>Total Financing</b>    | 211.00 |
| <b>of which IBRD/IDA</b>  | 148.00 |
| <b>Financing Gap</b>      | 0.00   |

**DETAILS**

**World Bank Group Financing**

|                                                              |        |
|--------------------------------------------------------------|--------|
| International Bank for Reconstruction and Development (IBRD) | 148.00 |
|--------------------------------------------------------------|--------|

**Non-World Bank Group Financing**

|                     |       |
|---------------------|-------|
| Counterpart Funding | 63.00 |
| Borrower/Recipient  | 63.00 |



Environmental and Social Risk Classification

Moderate

Concept Review Decision

Track I-The review did authorize the preparation to continue

## B. Introduction and Context

### Country Context

- India's Gross Domestic Product (GDP) growth was already slowing when the COVID-19 outbreak unfolded.** Real GDP growth had moderated from an average of 7.4 percent during FY15/16-FY18/19 to an estimated 4.0 percent in FY19/20 due to shocks to the financial sector and a decline in private consumption growth. Against this backdrop of pre-existing weaknesses, the outbreak of COVID-19 had a significant impact, with real GDP contracting by 7.3 percent in FY20/21.<sup>1</sup> On the fiscal side, the general government deficit widened significantly in FY20/21, owing to higher spending and low revenues<sup>2</sup>. Given the significant uncertainty pertaining to epidemiological developments, real GDP growth for FY21/22 is likely to be in the range of 7.5 to 12.5 percent.<sup>3</sup>
- Although India has made remarkable progress in reducing absolute poverty in recent years, the COVID-19 outbreak has delayed the course of poverty reduction.**<sup>4</sup> Between 2011-12 and 2017, India's poverty rate is estimated to have declined from 22.5 percent<sup>5</sup> to values ranging from 8.1 to 11.3 percent<sup>6</sup>. However, recent projections of GDP per capita growth, taking into account the impact of the pandemic, suggest that poverty rates in 2020 have likely reverted to estimated levels in 2016.<sup>7</sup> Labor market indicators from high frequency surveys - including from the Centre for Monitoring Indian Economy (CMIE) - suggest that vulnerability has increased, particularly for urban households. The pandemic and its economic impacts are estimated to have raised urban poverty overall, creating a set of "new poor" that are relatively more likely to be engaged in the non-farm sector and to have received at least secondary education.
- West Bengal is India's second most densely populated State, and its fourth most populous with 96 million people.** The State is the sixth largest contributor to India's net domestic product and agriculture contributes an estimated 20 percent to the GSDP and employs over 40 percent of the workforce. The vast majority of the agricultural workforce consists of small and marginal farmers. West Bengal is one of the most important food-producing States in India, producing nearly 15 percent of the rice and 23 percent of the potato production. Economic growth, poverty reduction and employment creation thus depend to a large extent on the agricultural sector. Due to the COVID-19 outbreak and the impact of Cyclone Amphan in May 2020, the State's economy is expected to contract in FY20/21 and recover only gradually thereafter. According to the State's own revised estimates for FY21/22, the fiscal deficit is expected to increase sharply owing to faster growth in spending than receipts. The percentage of the population below the poverty line is 20 percent – close to the national average of 22 percent. However, there is significant variation within the State, with some districts showing much higher poverty rates, especially in rural areas which remain much poorer than the cities. Due to the large size of the State's population, West Bengal also harbors the fourth largest absolute number of poor among India's States.<sup>8</sup>

<sup>1</sup> All GDP growth data and estimates from: National Accounts Data, National Statistical Office, Ministry of Statistics and Program Implementation (MOSPI).

<sup>2</sup> Union budget 2021, 2022, Ministry of Finance.

<sup>3</sup> World Bank Global Economic Prospects, July 2021.

<sup>4</sup> World Bank projections. The Government of India has deployed significant resources for social assistance, including towards urban poor households and migrants.

<sup>5</sup> Consumption Expenditure Survey 2011-12, National Sample Survey Office (NSSO), Government of India.

<sup>6</sup> World Bank estimates. Source: Poverty and Shared Prosperity Report, 2020.

<sup>7</sup> World Bank estimates. Source: Macro Poverty Outlook, 2020.

<sup>8</sup> World Bank, West Bengal Poverty, Growth & Inequality; June 20, 2017.



## Sectoral and Institutional Context

4. **Although West Bengal is a major producer of agricultural commodities, the average income of agriculture-dependent households is one of the lowest in India.** At US\$ 54 (INR 3980) per household per month, it is significantly below the national average US\$ 86 (INR 6426) per household per month.<sup>9</sup> The potential for promoting high-value crops and commercial farming and increasing cropping intensities is constrained by poor surface water availability and inefficient irrigation. Groundwater abstraction increases the cost of cultivation and undermines sustainability of the underlying water resources.<sup>10</sup> Climate change is expected to amplify these challenges as rising temperatures and increasing climate variability will raise crop water requirements, particularly demand for groundwater, further endangering the resource sustainability.

5. **West Bengal is facing significant vulnerabilities to current and future climate change, posing threats to its natural resources and communities.** By 2030, the State is likely to experience more erratic temperatures, more heavy precipitation events, and an increasing frequency of floods, cyclones, and droughts.<sup>11</sup> The overall amount of water available from precipitation is expected to decline, while the rate of evapotranspiration will increase, placing strain on water resources, crop patterns and irrigation services. This is predicted to exacerbate the State's current issues, since rising temperatures and growing climatic unpredictability would increase crop water requirements, particularly demand for groundwater, further compromising resource sustainability. The agriculture sector also has a major potential for reducing GHG emissions and improving environmental management through enhanced soil and water conservation and climate-resilient farm management practices.

6. **West Bengal is richly endowed with water resources but has struggled to harness these effectively in agriculture.** The State's water resources account for 7.5 percent of India's total, however, as much as 76 percent of the annual rainfall (1,740 mm) falls in the three to four monsoon months. Nevertheless, 15 million hectares (as much as 26 percent of the cultivable area) remain rainfed due to a lack of irrigation systems, especially in the dry western regions where groundwater potential is low.

7. **The West Bengal Accelerated Development of Minor Irrigation project (2011-19), provides a successful model for developing minor irrigation schemes to enhance agricultural production.** In addition to supporting the construction of small water storage structures in western districts, it strengthened community-based irrigation management, supported agricultural development and services, encouraged crop diversification and use of new technologies, and created new income-generating opportunities. Overall, the project reached 124,700 beneficiaries of which 111,203 were small and marginal farmers – approximately two percent of West Bengal's over six million small and marginal farmers. An analysis after project completion showed that farmers covered by the interventions saw an incremental median income increase of \$319 per hectare relative to those who did not benefit from project interventions. Implementation tools, technologies and principles designed under the WBADMI project also informed the State flagship program "Jaltirtha" on minor irrigation schemes in the Western Districts and the "Matir-Sristi" mixed-fruit plantation on wastelands. The Government of West Bengal is now keen to scale-up and institutionalize the approach and achievements of the first project.

## Relationship to CPF

8. **The proposed operation is aligned with the Country Partnership Framework for India<sup>12</sup> and directly contributes to the World Bank Group's twin goals of ending extreme poverty and promoting shared prosperity.** By promoting more resource-efficient, inclusive, and diversified growth in the rural sector, the project directly supports two key areas of the CPF, that is, 'Resource Efficient Growth' and 'Enhancing Competitiveness and Enabling Job Creation'. The proposed Project

<sup>9</sup> Mandala et al., Challenges, Options and Strategies for Doubling Farmers' Income in West Bengal – Reflections from Coastal Region Agricultural Economics Research Review Vol. 30 (Conference Number) 2017 pp 89-100

<sup>10</sup> The State currently uses about 42 percent of the total annual net replenishment of groundwater. Between 2005 and 2017, the number of semi-critical blocks increased from five to 19 (out of a total of 41 blocks). A semi-critical block is a block where the groundwater table has on average been declining by over 0.20m per year over a five-year period.

<sup>11</sup> [http://www.environmentwb.gov.in/pdf/WBSAPCC\\_2017\\_20.pdf](http://www.environmentwb.gov.in/pdf/WBSAPCC_2017_20.pdf)

<sup>12</sup> World Bank, India CPF: FY18-22; Report No. 126667-IN, July 25, 2018, discussed at the Board on September 20, 2018



is also aligned with the engagement area of the CPF results framework on “Transformation by increasing agricultural productivity in targeted areas”. The project will improve incomes of small and marginal farmers and contribute directly to ending extreme poverty and promoting shared prosperity. Moreover, activities will be designed to bolster “climate resilience, water efficiency, sustainable productivity increases, and greater value capture and income for the rural population from agriculture” as targeted in the CPF. The Project will also aim to leverage private sector investments by enabling access to finance and building market access. The activities will support gender equality and empowerment through targeted trainings of women in modern agricultural, horticultural and fishery methods, as well as by encouraging female plot holders to take up an active role in Water User Associations (WUAs), and thus the planning, implementation and management of minor irrigation schemes supported by the project

### C. Proposed Development Objective(s)

9. The Project development objective is to improve access to water resources and to enhance the management of water in order to augment the production of agricultural commodities in the project area in West Bengal.

#### Key Results (From PCN)

#### 10. Key PDO-level indicators to measure progress towards achievement of the PDO include:

- (a) Operational water user associations created and/or strengthened (number)
- (b) Increase in amount of water harnessed (MCM)
- (c) Increase in production of major outputs – Rice, Oilseed and Pulses (metric tons/year)
- (d) Beneficiaries provided with new/improved irrigation and drainage services (number)
  - of whom small and marginal farmers
  - of whom farmers belonging to tribal communities
  - of whom female farmers

### D. Concept Description

11. **The proposed project will extend the achievements of the WBADMI Project by expanding minor irrigation services to more small and marginal farmers, mainstreaming modern agricultural techniques and institutionalizing the participatory WUA approach to irrigation and water management.** The project will also provide financing for existing minor irrigation schemes to support value additions and more efficient water management. These activities are expected to improve irrigation for up to 60,000 hectares (ha) of farmland, thus benefitting up to 150,000 farmers. **The project is expected to consist of four components.**

12. **Component 1 – Strengthening Community-Based Institutions (USD 14 m IBRD):** This component will support the engagement of farmers’ organizations in the sustainable design, planning and management of minor irrigation services and improved irrigated agricultural practices. The key activities will be aimed at institutionalizing the farmer participation model through WUAs, and possible federated arrangements to Farmer Producer Organizations. The component will also target the institutional transformation of the Department of Water Resources Investigations and Development (DWRID), the institution of the Government of West Bengal mandated to manage minor irrigation services, to improve its capacity and enable effective collaboration with farming communities in the long-term.

13. **Component 2 – Minor Irrigation Services (USD 141 m, of which USD 78 m IBRD and USD 63m from Borrower):** Investments under this component will improve access to water for agricultural irrigation and related activities to enhance livelihoods of farmers. The focus will be on developing rainwater harvesting (storage) structures in watersheds that are



water-resource-constrained and currently cultivated under rainfed conditions. Investments will be tailored to the geo-climatological and agro-ecological zones of West Bengal to maximize returns for the farmers.

14. **Component 3 - Agricultural Support Services (USD 35 m IBRD):** This component will make investments in raising water productivity, promoting climate smart agriculture, improving nutrition and promoting Farmer Producer Organizations. These activities will be carried out in the three key sub-sectors – Agriculture, Horticulture and Fisheries. Activities under this component will build on existing initiatives of the Government of West Bengal (GoWB), which will be scaled up to ensure that the improved availability of water due to investments under Component 2 will translate into enhanced and diversified agricultural production, climate smart practices and thus improved rural livelihoods.

15. **Component 4 – Project Management (USD 21 million IBRD):** This component will finance project management at State and district levels, as well as capacity building within the DWRID. The project will benefit from existing implementation arrangements. A State Project Management Unit and District Project Management Units will be supported to manage the implementation of all project activities. The existing robust M&E tools, including a web-based Management Information System, remote sensing based performance monitoring of schemes, a ranking system of WUAs and real-time updates using mobile-based applications and geotagged photographs, which the proposed project will continue to support and enhance.

16. **Climate Co-Benefits:** The project will promote climate informed solutions for minor irrigation and farming systems that reduce the negative effects of climate disturbances on various stakeholders and strengthen their capacity to recover from future climatic variabilities. The climate-resilient technologies promoted by the project will directly contribute to a more efficient use of water resources. Through the dissemination of agronomic practices, the project will help achieve higher and more stable yields, improved soil quality and higher farmland productivity.

| Legal Operational Policies                  | Triggered? |
|---------------------------------------------|------------|
| Projects on International Waterways OP 7.50 | Yes        |
| Projects in Disputed Areas OP 7.60          | No         |

Summary of Screening of Environmental and Social Risks and Impacts

17. The overall Environmental and Social Risk Classification (ESRC) is Moderate. The Environmental Risk Rating is Moderate. DWRID have experience of implementing World Bank projects including managing the environmental safeguards. The E&S screening will help in early identification of risks and selection of sub-projects and activities.

18. The social risk rating is also Moderate. The social risk is rated moderate as project (i) does not envisage any private land acquisition, major civil works, significant labor/labor influx or SEA/SH risks; (ii) IA already has experience in implementing World bank project and managing social issues; (iii) the institutional arrangement for social management measures are already in place; and (iv) the E&S screening is part of the technical screening, hence E&S risks are identified early in the project and helps in finalization of the sub project.

19. **Gender:** The project will address persistent gender gaps pertaining to: *first*, women’s leadership/presence in decision-making roles in water user associations; *second*, women’s structured participation in infrastructure planning, prioritization, implementation and operation and maintenance of irrigation/drainage related investments<sup>[1]</sup>;

<sup>[1]</sup> Impact Study of Karnataka Watershed Development Project II (Sujala III), TERI; 2019.



*third*, absence of gender-disaggregated data in baseline surveys, detailed project reports (DPRs) and monitoring and reporting systems; and *fourth*, targeting of women farmers, women agriculture workers and women-headed households as direct beneficiaries of investments in irrigation/drainage systems.

20. An Environmental and Social Management Framework, including a Tribal Development Framework, will be prepared with guidance for instruments commensurate with the issues identified. Further, the project preparation will include a Labor Management Plan, Stakeholder Engagement Plan, and Environment and Social Commitment Plan.

## CONTACT POINT

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## APPROVAL

Task Team Leader(s):

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**Approved By**

|                           |             |             |
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