Report Number : ICRR0022724

1. Project Data

Project ID	Project Name
P126325	IN: Maha RWSSP
Country	**Practice Area(Lead)**
India	Water

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-53750	31-Mar-2020	80,622,721.34
Bank Approval Date	**Closing Date (Actual)**	
12-Mar-2014	30-Sep-2020	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	165,000,000.00	0.00
Revised Commitment	96,158,977.08	0.00
Actual	80,622,721.34	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

The Program Development Objective (PDO) was "to improve the performance of Maharashtra's sector institutions in planning, implementation and monitoring of the Rural Water Supply and Sanitation Program and to improve access to quality and sustainable services in peri-urban villages, and in water-stressed and water-quality affected areas" (Financing Agreement, Schedule 1 and Project Appraisal Document, para.21). For the ICRR, the PDO is parsed into the following objectives:

Objective 1: To improve the performance of Maharashtra's sector institutions in planning, implementation and monitoring of the Rural Water Supply and Sanitation Program.

Objective 2: To improve access to quality and sustainable water supply and sanitation services in peri-urban villages.
Objective 3: To improve access to quality and sustainable water supply and sanitation services in water-stressed and water-quality affected areas.
The original PDO remained unchanged during project implementation. However, there were significant changes to some PDO indicators, Intermediate Results Indicators (IRIs) and associated outcome targets during restructurings. Consequently, a split evaluation is carried out for the ICRR.

b. Were the project objectives/key associated outcome targets revised during implementation?
Yes

Did the Board approve the revised objectives/key associated outcome targets?
Yes

Date of Board Approval
14-Jan-2019

c. Components
(Reference PAD paras. 15 to 19 and Annex 1).
The program scope, activities, and classification into Results Areas, as defined in the PAD, are given below. Changes in scope, activities, indicators and targets during implementation are discussed later below in the sections on restructurings.
Category 1: Institutional capacity building for planning, implementation and monitoring of the sector across the state: (estimated cost at appraisal US$64.6 million; actual cost at completion - not reported in the ICR),
The indicative list of activities was to include strengthening of: (i) current monitoring and evaluation (M&E) systems; (ii) rural water supply and sanitation (RWSS) planning processes, tools and guidelines; (iii) implementation capacity of sector institutions at state, district and block levels; (iv) program management capacity at all levels; (v) water testing laboratories; (vi) training through restructuring of the Maharashtra Environmental Engineering Training and Research Academy; (vii) capacities in groundwater management; (viii) program implementation capacity for carrying out the Nirmal Bharat Abhiyan (NBA) program in the state; (ix) governance and accountability systems in the sector; and (x) impact assessment of program initiatives.
Category 2: Water supply and sanitation service improvements in selected districts: (estimated cost at appraisal US$170.4 million; actual cost at completion - not reported in the ICR).
Support was to be provided to twelve districts (two from each administrative divisions of the state) in the following areas: (i) construction, rehabilitation, augmentation and extension of existing water supply systems and construction of new sullage management schemed in peri-urban villages; (ii) scaling up of sustainable groundwater management practices in critically exploited aquifiers; and (iii) construction and rehabilitation of water systems in water-stressed and water-quality affected areas. Technical assistance and capacity building support was to be provided for helping deliver NBA across the state including preparation of (I) Village Environmental Sanitation Plans and (ii) demonstration models for managing

sullage in peri-urban villages. The districts chosen for support were to be selected based on transparent, pre-defined and demand-driven criteria.
The planned scope and activities above were classified into four Results Areas along with associated Disbursement Linked Indicators (DLIs)::(The DLIs are discussed later below in Section 3 on Relevance of Objectives).

- Result Area 1: Strengthened planning and monitoring in the RWSS sector (supported by DLI-1: Strengthened M&E systems for the RWSS sector)
- Result Area 2: Improved institutional capacity for RWSS program implementation (supported by DLI-2: Strengthened capacity of sector institutions).
- Result Area 3: Improved access to quality and sustainable WSS services in peri-urban villages (supported by DLI-3: Number of house connections to a Commissioned Water Supply system and DLI-4: Number of house connections to a Sustainable Water Supply System and receiving a Regular Water Service)
- Result Area 4: Improved access to safe drinking water in water-stressed and water-quality affected areas (supported by DLI-5: Number of Community Safe and Secure Water Systems (CSSWS).

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Program cost: The estimated program cost at appraisal was US$235 million. The actual cost at completion was US$104.83 million.
Financing: At appraisal, the program was to be supported by an IDA grant of US$165 million, At completion, the actual disbursement was US$ 80.62 million. In total, an amount of US$84.38 million was cancelled from the IDA grant.
Borrower contribution: At appraisal, the contribution from the Government of Maharashtra (GoM) was planned at US$70 million. At completion, the actual contribution from the GoM was US$24.21 million.
Dates: The project was approved in March 2014, became effective in August 2014, and the planned closing date was March 2020. The actual closing date was September 30, 2020.
Mid-Term Review: A Mid-Term Review (MTR) was carried out in March 2017.
Restructurings: The project underwent five Level 2 restructurings.
First restructuring (January 2019, disbursed amount US$31.32 million, 39% of total disbursement): The original PDO remained unchanged. However, significant changes were made in PDO Indicators (PDOIs), Intermediate Results Indicators (IRIs), and Disbursement Linked Indicators (DLIs), with changes in associated targets and allocations. Some changes were also made in scope, DLI verification protocols, and Program Action Plan. The principal changes are summarized as follows:
PDO Indicators:

- PDOI-1: The original indicator "number of districts using improved planning processes and strengthened M&E systems" was replaced by two new indicators "Number of districts using strengthened M&E systems" and "Number of districts using improved planning processes". The

associated targets were revised as follows; M&E target reduced from 33 to 30 and improved planning target reduced from 33 to 6.

- PDOI-2: The original indicator "percentage of completed rural water supply schemes that followed GoM's demand-responsive approach and exited the implementation process with a schedule performance index (SPI) of between 0.75 and 1.25" was revised to "percentage of sanctioned piped RWS systems that followed GoM's demand-responsive approach". The indicator was narrowed to piped water systems only and the reference to SPI was dropped to remove complexity. The target of the narrow indicator was raised from 30% to 60%.
- PDOI-3 and PDOI-4; The original two indicators were merged into a single World Bank core indicator with a combined target of 385,000 beneficiaries as compared to the earlier separate targets of 340,000 and 471,000 respectively.

Intermediate Results Indicators:

- IRI-2: The original indicator "improved planning process for the sector" was dropped as this was measured by the new PDOI-2.
- IRI-4: The original indicator :systems following demand-responsive approaches" was dropped as it was measured by the new PDOI-3.
- New IRI-6: This was added to measure Gram Panchayats (GPs) meeting service delivery standards.
- For other IRIs, there were some changes in wording and targets.

Disbursement Linked Indicators:
Selected DLIs were amended along with introduction of Disbursement Linked Results (DLRs) as intermediate milestones along with changes in associated funding allocations.

- Results Area 1 (Strengthened sector planning and monitoring): The original DLI-1 was retained with the addition of five new DLRs.
- Results Area 2 (Improved capacity for program management): The original DLI-2 underwent a minor rewording.
- Results Area 3 (Improved access to quality and sustainable WSS in peri-urban villages): The original DLI-3 and DLI-4 were re-labeled along with the addition of four new DLRs for DLI-3 and two new DLRs for DLI-4.
- Results Area 4 (Improved access to safe drinking water in water-stressed and water-quality affected area). The original DLI-5 was retained but the target was reduced from 580 to 214 to reflect actual demand based on the selection criteria.

Other changes:

- The scope was increased to increase support to the Water Testing Laboratories which had been transferred to the authority of the Water Supply Services Department in the GoM ad to the Geological Surveys and Development Agency (GSDA) which was mandated to manage the laboratories.
- The Verification Protocol for DLIs was revised to reflect the changes in definitions and other changes.

- Changes were made in the Program Action Plan (PAP) with the dropping of the original PAP2 and PAP5 (dealing with Capacity Development Plans) as these were covered under the DLIs/IRIs.
- The original PAP4 and PAP7 were merged into one PAP4 since they both covered the same topic.
- PAP10 was dropped as it was not relevant in the post-restructuring circumstances.
- Amendments were made to PAP11 and PAP12 to reflect changes in fiduciary arrangements.

Other Restructurings: Credit cancellations were made as follows: Second Restructuring (March 2020) - US$ 30 million; Third Restructuring (June 2020) - US$22.92 million; and Fifth Restructuring (September 2020) - US$6 million.
Also, under the Third Restructuring, the original loan closing date was extended by six months to September 30,2020.

3. Relevance of Objectives

Rationale

(Reference PAD paras. 1 to 12 and ICR paras. 1 to 9).
Country and Sector Context: After a period of rapid growth, averaging 8.3% a year, between 2004 and 2011, the growth rate in the Indian economy had slowed down to about 5% annually at the time of appraisal (2014). Both domestic and external factors contributed to the slowing of growth - increase in inflation, rising fiscal deficits, and weakness in external demand for exports. The country's 12th Five Year Plan (FYP) for the period 2013 to 2017, called for major investments in infrastructure, including in water supply and sanitation. The lack of adequate water supply and sanitation (WSS) services was particularly felt in the rural areas which accounted for about 70% of India's population of 1.2 billion. At the time of appraisal, the total economic impact of inadequate WSS services was estimated at about INR 2.4 trillion (US$3.8 billion equivalent) per year or an annual loss of about INR 2,180 (US$48) per capita.
While India was estimated to have one of the highest coverage rates for rural water supply, the quality of services was poor with water quality problems, low pressure, and unreliable supply with interruptions. By 2010, about 90% of India's rural population had access to improved water sources but only about 31% had access to piped water. Rural sanitation remained a major challenge. Only about 30% of households had access to sanitation facilities. India had one of the highest rates of open defecation in its rural areas. As of 2010, an estimated 60% of the global population practicing open defecation lived in India.
In India, ensuring provision of rural water supply and sanitation (RWSS) services is primarily a responsibility of the state governments While the Ministry of Drinking Water and Sanitation (MDWS) is the nodal ministry at the national level, it is responsible for design of national programs, securing funding from Government of India (GoI) resources, releasing resources to the states against agreed action plans, monitoring performance of the states, and coordinating with external agencies.
At the state level, institutional management responsibilities for RWSS are decentralized to three-tier Panchayati Raj Institutions (PRIs) at the rural local government level. Maharashtra is the second largest state in India with a population of about 112 million of which an estimated 55% live in rural areas. It is the leading state in India in adopting RWSS reforms, including in promoting decentralization of sector management and demand-responsive approaches. At the state ;level, the Water and Sanitation Services

Department (WSSD) is the overall lead agency and is responsible for policy formulation, providing resources and monitoring sector performance. Implementation of the sector programs is the responsibility of the Zilla Parishads (ZPs) at the district level and Gram Panchayats (GPs) at the village level. Technical support to the sector is provided by various state-level agencies.
Despite significant progress in institutional strengthening, further improvements are required to enable the GoM to meet its targets in regard to the RWSS sector. The current Program for Results (PfR) project aims at supporting the GoM to achieve its goals.
Alignment with national/state-level priorities: (PAD paras. 5 to 8 and ICR paras 1 to 6): The project development objectives (PDOs) were consistent with national priorities at appraisal, including the GoI's 12th Five Year Plan (FYP) for the period 2012-2017 which called for major investments in water supply and sanitation to increase the health and well-being of the population, especially in the rural areas. The PDOs continue to remain consistent with the GoI's currently prevailing priorities being implemented under (i) the National Rural Drinking Water Program (NRDWP) which aims at providing safe and adequate drinking water in rural areas on a safe and sustainable basis; the program places emphasis on improving the levels of service delivery, improved planning, and increased sustainability; it also includes piped water supply with a focus on increasing household connections; and (ii) the national flagship Clean India Mission (Swachh Bharat Mission). which aims to achieve universal sanitation coverage, improve cleanliness, and eliminate open defecation; the program targets both rural and urban areas. The PDO also remain consistent with the state-level priorities of the GoM as expressed in its 10-Year RWSS Program which aims at ensuring that 100% of the population has access to safe water and sanitation, including through increasing the number of household connections and improving service delivery.
Alignment with the Country Partnership Strategy/Framework: (CPF for FY18 to FY22): At appraisal, the PDO were consistent with the priorities under the prevailing Country Partnership Strategy (CPS) for FY13 to FY17 particularly its Outcome 2.3 "improved access to water supply and sanitation services". The PDO remain consistent with the latest Country Partnership Framework (for FY18 to FY22) and two of the three pathways identified under the Systematic Country Diagnostic as necessary for ending poverty and promoting shared prosperity:(i) growth needs to be inclusive and addressing inequality; and (ii) need for strengthening the effectiveness of public institutions in delivering services. The CPF's Focus Area 3 - Investing in Human Capital includes Sub-Objective 3.3 "increase access to improved rural water supply and sanitation". The CPF confirms (para. 34) that the World Bank Group (WBG) will provide support for strengthening the capacity of state and local institutions for efficient and sustainable service delivery, scaling-up performance-based delivery models, increasing customer voice for accountability, and providing quality assurance through robust M&E systems.
Relevance of the PDO: Given the country and sector context, the PDO continue to be relevant in regard to the currently prevailing national/state level and CPF priorities. They were pitched at the right level to address the RWSS-related priorities of the GoM. Maharashtra is one of the leading states in India in implementing WSS sector reforms.
Rationale for PfR Support: The Program was a sub-part of a the GoM's larger 10-Year RWSS Program (2012-2022). The PfR program enabled the Bank to support and incentivize key aspects of the overarching GoM program. The PfR Program boundaries were defined by a six-year (2014-2020) implementation period as well as sectoral and geographical priorities. The PfR Program was designed to support the GoI's and GoM's objectives of strengthening of planning, implementation and monitoring capacities in the RWSS sector with a focus on community-driven and demand-responsive approaches. The Maharashtra RWSS

PfR Program was the first intervention of its type supported by the WBG in India's RWSS and was followed by several other PfR interventions that drew upon the experience under this PfR project.
Prior Bank experience in the sector: The World Bank has long been engaged in India's WSS sector and has financed several projects. Currently, it has a portfolio of WSS and RWSS projects in seven states. The focus in recent projects has included strengthening of planning, implementation and monitoring capacities. Specifically in Maharashtra, the Bank financed the Maharashtra Water Supply and Environmental Protection Project (US$110 million, 1991-98) and the Maharashtra Rural Water Supply and Sanitation Project (US$180 million, 2003-2009). Experience under these earlier projects fed into the preparation and implementation of the Maharashtra RWSS PfR Project.

Rating
High

4. Achievement of Objectives (Efficacy)

Objective 1
Objective
To improve the performance of Maharashtra's sector institutions in planning, implementation, and monitoring of its Rural Water Supply and Sanitation program

Rationale
Maharashtra was among the first states in India to institute sector-wide reforms in regard to its Rural Water Supply and Sanitation (RWSS) sector. It was also the first state in India to adopt a Program for Results (PfR) project with the Bank. Despite some improvements achieved under earlier Bank-financed operations, successful implementation of the RWSS reforms required further strengthening of institutional capacity in regard to sector planning, program implementation, and monitoring. The theory of change (TOC) was that the project inputs would provide technical assistance, including consulting services and equipment, aimed at (i) strengthening sector planning and monitoring and (ii) improving institutional capacity for program implementation. This would yield outputs including (i) a strengthened M&E system for the sector; (ii) preparation of District Annual RWSS Plans for selected districts; (iii) strengthened capacity in key sector institutions; and (iv) improved capacity for water quality testing and training. The intermediate outcomes would include (i) an M&E system established and in use in all districts; (ii) annual RWSS Plans prepared and used in selected districts; and (iii) adequate staffing and training in key sector institutions. The outcome would be improved performance of Maharashtra's RWSS sector institutions.
Key assumptions underlying the TOC were that: (i) a sector-wide M&E system could improve the GoM's ability to monitor progress and performance of the RWSS sector on a dynamic basis; (ii) rural communities would be actively engaged in decision-making and the annual district-level RWSS planning process; (iii) the strengthened capacity of the key sector institutions would translate into improved service delivery and sustainability of the sector investments; (iv) the implementing agencies would have the required capacity to implement the water supply and sanitation construction activities; and (v) the GoM would retain its overall commitment to follow results-based approaches. The assumptions were reasonable in the prevailing context.

As discussed earlier in Section 2, some of the PDO Indicators (PDOIs) and Intermediate Results Indicators (IRIs) had significant shortcomings in regard to clarity and measurability, and were not fully aligned with the World Bank's Core Sector Indicators. These shortcomings were addressed at the first restructuring in 2019.

Outputs and Outcomes: (based on ICR paras. 45 to 55 and Annex 1 - Results Framework)

The outputs and outcomes for this objective are discussed under the following Results Areas (as originally defined prior to restructuring):

Results Area 1: Strengthened sector planning and monitoring: The outcome was to be measured by the following PDO indicators:

- number of districts using improved planning processes and strengthened M&E systems.
- percentage of sanctioned piped rural water supply systems that followed GoM's demand-responsive approaches.

Strengthened M&E system: This was covered under DLI-1 "Strengthened M&E system for the sector". As defined in the PAD, a strengthened M&E system was to be able to capture and analyze a minimum set of indicators including: (i) sector performance, including design and technical considerations for water supply and sanitation services; (ii) fiduciary performance including budgets, funds flow, and procurement aspects; and (iii) project/contract management including schedule and cost performance of RWSS schemes (ICR para.19). The original IRI was that the WSSD carries out a review of the implementation of the strengthened M&E system and identifies required changes and future needs. This IRI was not changed during implementation and was achieved by September 30, 2020. The PDO indicator was "number of districts using strengthened M&E systems", The original target was exceeded (original target 33; revised target 30; actual 34; achievement level against original target 103%).

Improved planning processes: An improved planning process was defined as one that helps assess needs and guide investment and program support decisions using: (i) village level data collection on key water-related indicators approved by WSSD; (ii) information available from sources such as GSDA; and (iii) tools for spatial mapping and analysis. The improved planning process captures village level information and is used to build block and district level action plans for planning and prioritizing activities (ICR Annex 1- Results Framework). The original outcome target was substantially underachieved. (original target 33; revised target 6; actual 4; achievement against original target 12%).

GoM's demand-responsive approach: The ICR reports (para. 46) that the original target in regard to demand-responsive planning of rural water supply systems was barely achieved due to difficulties in tracking the performance indicator (Schedule Performance Index) that was adopted under the original project.

Based on this, the efficacy of Objective 1 is rated Modest.

Rating
Modest

Objective 1 Revision 1
Revised Objective

To improve the performance of Maharashtra's sector institutions in planning, implementation, and monitoring of its Rural Water Supply and Sanitation program

Revised Rationale

The original Objective 1 was not changed during implementation. However, as discussed earlier in Section 2, significant changes were made in regard to some PDO indicators, IRIs and associated targets. The TOC for the Revised Objective 1 is essentially the same as provided above under Objective 1. Key assumptions were essentially the same as for Objective 1. With the changes made in the PDO and IR indicators, the indicators were relevant, measurable and adequate to assess the attribution of outcomes to the project interventions.
Outputs and Outcomes: (based on ICR paras. 45 to 55 and Annex 1 - Results Framework)
Post-restructuring, outcomes under the Revised Objective 1 were to be assessed on the basis of the following PDO indicators:

- number of districts using strengthened M&E systems
- number of districts using improved planning processes
- percentage of sanctioned piped rural water supply systems that followed GoM's demand-responsive approach
- strengthened capacity of GoM's key sector institutions
- percentage of Gram Panchayats (GPs) that maintain Open Defecation Free (ODF) status

The outputs and outcomes are discussed below under the respective Results Areas.
Results Area 1: Strengthened sector planning and monitoring
Strengthened M&E system: This was covered under DLI-1 "Strengthened M&E system for the sector". The definition of a strengthened M&E system was further clarified and elaborated under the project restructuring. The Program supported the conceptualization, development, and implementation of a sector-wide M&E system. The relevant DLI-1 (also the IRI) was "WSSD carries out a review of the implementation of the strengthened M&E system and identifies required changes and future needs". The ICR reports (para. 47) that the system was rolled out in September 2019 and was operational in all 34 districts of the state by project closing. The target was achieved. The ICR confirms (Results Framework) that the districts have been fully equipped to operate the systems and are able to enter the data, generate reports, and capture information on 67 indicators grouped into 11 modules under three thematic areas of sector performance, fiduciary performance, and contract management performance. The ICR reports (Results Framework) that WSSD ensured data validation based on online verification with the districts. The documents and evidence were reviewed and confirmed by the Independent Verification Agent (IVA) appointed under the project. The ICR also reports (para. 48) that some challenges remained at project closing, including quality of data entry and outputs, regular use of the system in decision-making, and integration with the national Management Information System (MIS). It is further reported that WSSD intends to address these issues.
Improved planning processes: The definition of an improved planning process was further clarified and elaborated under the project restructuring. The district planning process was strengthened and Annual District Plans were prepared in 4 districts (67% achievement level against the revised target of 6 districts) (ICR para. 49). Digital tools and a strengthened district annual planning process were developed by WSSD with assistance from specialists from the Massachusetts Institute of Technology (MIT). The planning process included detailed community-wide consultations and interventions were based on the specific needs of the

different villages, including the most needy villages. The ICR reports (para. 49), however, that these plans were not yet being consistently used due to the need to quickly identify water supply investments that could be included under the Government of India's water supply related program.

Results Area 2: Improved capacity for program implementation

Institutional capacity building: This was covered under DLI-2. As reported in the ICR (para. 52) a comprehensive capacity-building needs assessment of the water and sanitation sector in Maharashtra was carried out by a specialized consulting firm. Based on this assessment, 40 standard training modules were developed covering procurement, financial management, communications, M&E, and technical sector skills. Annual capacity-building plans were prepared and implemented by MEETRA (Maharashtra Environmental Engineering and Research Academy). Training was also carried out for officers and staff at the State, Zilla Parishad (ZP), Block and Gram Panchayat (GP) levels. The Program identified and mobilized 2,357 staff for the state's decentralized sector institutions through a mix of WSSD's own staff, staff on deputation from other departments, and staff contracted from the market. (ICR para. 50).The District Water and Sanitation Mission (DWSM) cell was strengthened and the ICR reports that it was instrumental in achieving ODF status in the state, establishing an effective water quality monitoring system, and adopting a sector-wide M&E system. The DLI-2 required that relevant staffing levels be maintained at a level of at least 75% each year during the implementation period. The target was substantially achieved. On average, the actual achievement was 67% (achievement level of 89% against the revised target).

GoM's demand-responsive approach: The revised definition of the GoM's demand-responsive approach was "A rural water supply system is considered to have followed GoM's demand responsive approach if a number of minimum conditions are satisfied including; (i) confirmation of the Gram Panchayat's (GP's) resolution to seek a ne w system; the GP's approval of the new system; the GP's agreement to take over the system through WSSD; and establishment of a Village Water and Sanitation Committee (VWSC) including an adequate representation of women. WSSD carried out sample surveys through the districts/ZPs and confirmed that the processes were followed across the state. The PDO indicator was "percentage of sanctioned piped rural water supply systems that followed GoM's demand-responsive approach". Against the revised target of 60%, the actual achievement was 100%. The target was substantially overachieved.

Revised Rating
Substantial

Objective 2
Objective
To improve access to quality and sustainable water supply and sanitation services in peri-urban villages.

Rationale
With rapid urban growth, the demand for water supply and sanitation services increased as well in the peri-urban areas. Rising incomes among segments of the population led to an increase in demand for better quality services. However, supply of water supply and sanitation services lagged behind demand both in terms of adequate access as well as quality. The theory of change (TOC) was that the project would provide inputs in the form of technical assistance, including consulting services and equipment, to support water supply and sanitation interventions in peri-urban areas. These would yield outputs including (i)

commissioned peri-urban water supply systems and (ii) improved service delivery to peri-urban areas. The outcome would be improved quality and sustainable water supply access in peri-urban areas.
Key assumptions were that: (i) the GPs would continue with their commitment to ensure sustainability of the installed systems and (ii) the GoM would continue to provide the required level of support. As discussed earlier in Section 2, the PDO indicator, some Intermediate Results Indicators (IRIs), and associated targets had significant shortcomings in regard to clarity and measurability, and were not fully aligned with the World Bank's Core Sector Indicators. These shortcomings were addressed at the first restructuring in 2019.
Outputs and Outcomes (based on ICR paras. 56 to 58 and Annex 1 - Results Framework):
Results Area 3: Improved access to quality and sustainable access to water and sanitation services in peri-urban villages
For Objective 2, a single PDO indicator was included under the original project "number of people in peri-urban villages who are connected to a sustainable water supply system".
Achievement of the IRI targets was as follows:

- Percentage of GPs that are using sustainable O&M (Operations & Maintenance) mechanisms: (baseline 10%; original target 40%; actual 56%; achievement level 140%).
- Number of house connections to a commissioned peri-urban water supply system (baseline 0%; original target 68,095; actual 48,058; achievement level 71%).
- Number of house connections to a sustainable water supply system receiving regular water service (targets not specified).
- Number of house connections to sustainable sullage collection and disposal systems (baseline 0; original target 51,071; actual - not reported - the target was dropped at restructuring).

In regard to the PDO, against the targeted number of beneficiaries of 340,000, the actual achieved was 200,399; achievement level 59%). The outcome target was significantly underachieved.
Based on this, the ICRR rates the efficacy of Objective 2 as
Modest.

Rating
Modest

Objective 2 Revision 1
Revised Objective
To improve access to quality and sustainable water supply and sanitation services in peri-urban villages.

Revised Rationale
The original Objective 2 was not changed under the restructurings. However, as discussed earlier in Section 2, significant changes were made in some PDO indicators and IRIs and in the associated targets, The TOC for the Revised Objective 2 remains essentially the same as provided above for Objective 2. Key assumptions were essentially the same as for Objective 2. With the changes made in the PDO and IR

indicators, the indicators were relevant, measurable and adequate to assess the attribution of outcomes to the project interventions.

Outputs and Outcomes (based on ICR paras. 56 to 58 and Annex 1 - Results Framework):

Results Area 3: Improved access to quality and sustainable water and sanitation services in peri-urban villages

Achievements under this objective were assessed under the following key IRIs:

Percentage of piped water systems that are using sustainable O&M models: Under the revised definition, "sustainable model" was re-defined as "suitable model" as follows: A system is considered to have a suitable O&M model if the following minimum conditions are satisfied: (i) an appropriate O&M system has been decided by the GP/system beneficiaries as per the O&M guidelines established by WSSD; (ii) the GP has adopted the system; and (iii)there is an assessment of annual O&M costs and the GP resolves to collect suitable levels of tariffs to meet the O&M costs or to make up any shortfalls through other sources. The target was overachieved (baseline 10%; target 40%; actual 56%; achievement level 140%).

Number of house connections to a commissioned peri-urban water supply system: Under the revised definition, a commissioned peri-urban water supply system means a peri-urban water supply system that is physically completed and commissioned and certified by the responsible WSSD engineering officer. The target was underachieved (baseline 0; target 68,095; actual 48,058; achievement level 71%).

Number of house connections to a peri-urban water supply system receiving service as per service delivery standards: Under the revised definition, at a minimum, service delivery standards required (i) operation under a suitable O&M model; (ii) daily water supply at a minimum of 70 liters per day (lpd); (iii) water quality that meets GoM standards; and (iv) limited disruptions. The target was substantially achieved (baseline 0; revised target 45,000; actual 41,658; achievement level 93%).

Number of households in peri-urban areas connected to sullage collection and safe disposal systems: The definition of peri-urban sullage collection and disposal systems are those that: (i) collect sullage generated from households; (ii) treat and dispose or re-use the treated sullage according to GoM/GoI environmental standards and norms. The target was not achieved (baseline 0; revised target 28,000; actual 0; achievement level 0%).

Outcomes: The revised PDO indicator was 'number of people provide with access to improved water sources in peri-urban schemes". The revised target was overachieved (baseline 0; revised target 185,000; actual 200,399; achievement level 108%). Of the targeted 46 schemes, 45 had been commissioned, with 36 schemes demonstrating initial sustainability based on O&M considerations. Nine schemes had been handed over to the GPs. Surveys conducted and duly certified confirmed that the GPs were regularly collecting tariffs towards meeting the O&M requirements. The requirements under the associated DLI indicators (DLI-3 and DLI-4) were deemed to be fulfilled. The Program helped strengthen sustainability through the adoption of O&M approaches. A domestic metering policy was developed which was a first in India's RWSS sector (ICR para. 57). The policy clarifies the roles and responsibilities of various stakeholders and provides technical, procurement, cost-sharing and management options for metering. O&M guidelines were developed and provide to the GPs. A survey in 2020 confirmed that 56% of the GPs were meeting the O&M criteria and collecting more than 80% of the targeted revenues towards O&M expenses. The ICR reports (para. 58) that DLI-4 on service delivery in peri-urban areas was not eligible for any disbursements according to the conditions set by the Bank during the Program extension in March 2020 due to delays in WSSD adopting the practice of measuring results with respect to specific service delivery parameters.

Revised Rating
Substantial

Objective 3
Objective
To improve access to quality and sustainable water supply and sanitation services in water-stressed and water-quality affected areas,

Rationale
Maharashtra has a number of areas that are prone to be water-stressed and vulnerable to droughts or water-quality affected areas due to inadequate water quality in affected aquifers. The theory of change (TOC) was that the project would provide inputs in the form of technical assistance, including consulting services, facilities, and equipment that would improve access to quality and sustainable services in these areas. The resulting outputs would be (i) improved water systems; and (ii) improved aquifer management.These outputs would contribute to the outcome of increased access to improved water sources in water-stressed and water-affected areas.
Key assumptions were that (i) the GPs benefiting from the project interventions would continue to ensure sustainability of the facilities through adequate O&M coverage and revenue collection policies and (ii) the GoM would continue to provide technical, financial, and advisory support as appropriate. As discussed earlier in Section 2, some of the original PDO indicators and IR indicators lacked clarity or measurability and were modified at the project restructuring in 2019.
Outputs and Outcomes (based on ICR paras. 59 to 64 and Annex 1 - Results Framework):
Results Area 4: Improved access to safe drinking water in water-stressed and water-quality affected areas
For the original Objective 3, pre-restructuring, achievement of the IRI and PDO indicators was as follows:
IRI: Number of community safe and secure water schemes (baseline 0; original target 580; actual 100; achievement level 17%). The target was substantially underachieved.
IRI: Number of aquifer water management initiatives successfully implemented (baseline 0; original target 24; actual 12; achievement level 50%). The target was substantially underachieved
Outcomes: The PDO indicator was "people provided with access to improved water sources in water-stressed/water-quality affected areas (baseline 0; original target 471,000; actual 230,454; achievement level 49%). The target was substantially underachieved. The ICR reports (para. 59) that achievements against the pre-restructuring targets were modest: for access, 49% and for community safe and secure drinking water systems, 17%.
Based on this, the ICRR rates the efficacy of Objective 3 as Modest.

Rating
Modest

Objective 3 Revision 1
Revised Objective

To improve access to quality and sustainable water supply and sanitation services in water-stressed and water-quality affected areas,

Revised Rationale

The original Objective 3 was not revised under the project restructurings. However, substantial changes were made in some PDO indicators and IRIs and in the associated targets with a reduction in the ambition of the project. The theory of change (TOC) for the Revised Objective 3 remains essentially the same as provided above for Objective 3. Key assumptions remain essentially the same as for Objective 3. With the changes in PDO indicators and IRIs, the revised indicators were relevant and measurable, and adequate for assessing attribution of the results to the project interventions.

Outputs and Outcomes (based on ICR paras. 59 ti 64 and Annex 1 - Results Framework)

Results Area 4: Improved access to safe and secure water in water-stressed and water-quality affected areas

Achievements under the IRIs were as follows:

Number of community safe and secure water schemes (CSSWS): Under the revised definition, a CSSWS is a single village water supply system that satisfies the following minimum conditions: (i) located in an area categorized as water-stressed or water-quality affected inn accordance with established criteria; (ii) delivers potable drinking water complying with GoM's standards; (iii) provides at least the minimum quantity of drinking water according to prevailing GoM norms; (iv) implemented in line with GoM's demand-responsive approach; and (v) uses a suitable O&M model. Achievements were as follows: (baseline 0; revised target 214; actual 100; achievement level 47%). The target was substantially underachieved.

Number of aquifer water management initiatives (AWMIs) successfully implemented: Under the revised definition, an AWMI refers to an aquifer area in which relevant structural (physical interventions) and non-structural (demand management/conservation) measure are implemented with the involvement of the community with the objective of improving the sustainability of groundwater management to enhance drinking water security. Achievements were as follows: (baseline 0; revised target 12; actual 12; achievement level 100%). The target was achieved.

Outcomes: Of the 214 CSSWS targeted post-restructuring (102 in water-stressed areas and 112 in water-quality affected areas), 148 systems (80 in water-stressed and 68 in water-quality affected areas) were completed. Requirements in regard to the DLI-5 were certified to be fulfilled and funds disbursed accordingly. For habitations in water-stressed areas, innovative technological designs were successfully implemented. A community O&M model was developed and the communities trained in its application, including collecting maintenance fees from the beneficiary households. For water-quality affected areas, reverse osmosis plants and de-fluoridation plants were developed under build-operate-transfer (BOT) schemes under which the BOT contractor would operate the plants for the first 10 years before handing them over to the GPs. WSSD would provide financial support in the initial years with the GPs progressively becoming responsible for covering O&M requirements, Under the AWMI program, a total of 12 aquifers were treated under the Program in seven districts, targeting 102 villages in 72 GPs. Post-restructuring, the PDO indicator for Objective 3 was "number of people provided with access to improved water sources in water-stressed and water-quality affected areas". Achievements were as follows: (baseline 0; revised target 200,000; actual 230,454; achievement level 115%). The target was overachieved.

Revised Rating
Substantial

Rationale

Overall Efficacy Rating
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5. Efficiency

Efficiency Rating
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a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 ☐Not Applicable
ICR Estimate		0	0 ☐Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Outcome Rating (Split Evaluation)

Item	Before Restructuring	After Restructuring
Relevance of PDO	**Substantial**	**Substantial**
Efficacy of PDO	Modest	**Substantial**
Objective 1	Modest	Not rated
Objective 2	Modest	Not rated
Objective 3	Modest	Not rated
Revised Objective 1	Not rated	Substantial

Revised Objective 2	Not rated	Substantial
Revised Objective 3	Not rated	Substantial
Outcome ratings	**Moderately Unsatisfactory**	**Satisfactory**
Numerical value of outcome ratings	3	5
Disbursements (US$ million)	31.32	49.30
Share of disbursement (%)	39%	61%
Weighted value of outcome rating	1.17	3.05
Final outcome rating	**1.17 + 3.05 = 4.22** **Moderately Satisfactory**	

During implementation, significant changes were made which resulted in a reduction in the overall ambition of the project. The outcome rating above is therefore based on a split evaluation taking into account the pre-restructuring and post-restructuring objectives and results. The original objectives are rated pre-structuring and the revised objectives post-restructuring, and the outcome rating is weighted by the relative share of disbursements. The numerical value of outcome ratings is based on a six-point scale (6=Highly Satisfactory). On this basis, the final outcome is rated Moderately Satisfactory

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

Technical risks: This risk is assessed as Moderate. Beneficiaries under the project are predominantly in rural and peri-urban areas. Under the decentralized structure promoted by the GoM, the local bodies at the district, block and Gram Panchayat (GP) levels would be largely responsible for operating and maintaining the facilities and systems set up under the program. Given the lack of sufficient technical experience at the GP level, the GoM would have to ensure that technical and advisory support is provided in a timely and sufficient manner.
Institutional risks: This risk is assessed as Moderate. Substantial gains have been made under the program in strengthening institutional capacity in key GoM institutions involved in the RWSS sector, including staffing levels, training, facilities, and supporting equipment. However, sustainability of the gains will require commitment from the GoM to maintaining and continuing to apply the planning, implementation and monitoring systems established under the program. The GoM would also have to ensure continuity of relevant staffing at the higher levels as this was one of the factors that significantly affected the pace of project implementation.
Financial risks; This risk is assessed as Moderate. Efficient operation and maintenance of the water supply and sanitation facilities established under the program will require that the necessary revenues are collected. Since most of the established facilities are administered by the relevant GPs, sustainability of the program benefits will require the willingness and ability of the GPs to set appropriate tariffs and collect sufficient revenues.

8. Assessment of Bank Performance

a. Quality-at-Entry

For the World Bank, the program was the first Bank-supported PfR operation in the RWSS sector In India. Nevertheless, the Bank team was able draw on the experience gained under previous and ongoing Bank-financed projects in India's water supply and sanitation sector, including some in the RWSS sector. This included a predecessor project in Maharashtra (Maharashtra Rural Water Supply and Sanitation Project) which was completed in 2009. The strategic relevance and approach were sound and the program was well-aligned with priorities under the GoI, GoM and Bank CPFs (prevailing at appraisal as well as the latest). Technical, financial and economic aspects were well considered. The design took into account poverty, gender and social aspects. Assessments were carried out in regard to environmental and social aspects. Policy and institutional aspects were a special focus under the project since institutional strengthening was a key objective. M&E aspects received special attention since strengthening the M&E system state-wide was a major objective. The risk assessment was adequate and mitigation measures were identified. Despite this, as acknowledged in the ICR (para. 95), the program did exhibit weaknesses at entry, including issues related to readiness for implementation, some over-ambitious targets, lack of clarity and measurability in some key indicators, and unwarranted backloading of infrastructure-related DLI disbursements. This contributed to subsequent delays in project implementation.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The Bank supervision team was proactively involved in the program implementation over the duration of the project. To address the issue of delays in implementation and lagging disbursements in the earlier years of the project, the Bank team identified the need for restructuring as early as 2015. However, due to delays on the part of the concerned GoM agencies to complete their internal processes, including audits and reporting, the MTR mission was delayed until March 2017 and the first restructuring took place only in 2019, over five years into project implementation. For the restructuring, the supervision team was pragmatic in recognizing the need to reduce the ambition of the project and make modifications in some PDO indicators, IR indicators and outcome targets to align them better with the capacity of the counterparts.

The Bank team carried out a total of 11 implementation support missions (ISMs) over the implementation period of nearly seven years. The team was well-staffed with environmental, social and fiduciary specialists. The team benefited in terms of continuity from there being a single Task Team Leader (TTL) over the entire implementation period. The team arranged for provision of 'hands-on' support to WSSD for development of various capacity building modules, carrying out social audits, and supporting contract management. The team's reporting was regular and candid with Implementation Status and Results Reports (ISRs) being filed in a timely manner.

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design
Strengthening of the GoM's M&E system for the RWSS sector was a major objective under the project. The presentation of a detailed theory of change (TOC) was not a requirement at the time of project appraisal. The M&E design was based on utilizing the GoM's existing M&E system for the sector and building on it to add the special requirements in regard to the program. Given the decentralized sector implementation policy being followed by the GoM. the M&E system was designed to obtain the relevant information from the various levels of administration (state. district, block, and GP/village) together with the required certification and verification procedures. Nevertheless, there were some weaknesses in the M&E design including definitions of some PDO and IR indicators, which required modification during project restructuring.

b. M&E Implementation
During implementation, the M&E data were regularly collected for the purpose of tracking implementation progress, including achievement of scheduled activities, including construction and operationalization of facilities; staffing, training and other institutional strengthening activities; and compliance of various GoM administrative bodies with agreed actions.

c. M&E Utilization
The M&E data were regularly reviewed and utilized to assess implementation progress including disbursement linked conditions and procurement-related activities. However, the ICR reports (para 89) that the GoI had not yet given permission for the State M&E system's interface with the national-level M&E system. As a result, the State was running two parallel M&E systems at the closing of the project.
On balance, the ICRR rates the quality of the M&E system as Substantial.

M&E Quality Rating
Substantial

10. Other Issues

a. Safeguards

Environmental and Social Safeguards

At appraisal, the PAD did not specify whether any environmental and social safeguard policies were triggered. The ICR does not provide any information in this regard. An Environmental and Social Systems Assessment (ESSA) was carried out during program preparation (ICR para. 90). The ESSA confirmed that the state had an enabling policy and legal framework and assessed that the overall environmental and social impacts would be positive. The assessment also found that the state's social policies and procedures generally adequate for the program. The state has an enabling policy for legal framework to promote decentralized service delivery, active participation of women, and safeguard interest of vulnerable sections of society. The ICR reports (para. 91) that the Bank monitored compliance with agreed environmental and social action plans, including compliance with the requirements of PAP9 that specified necessary capacity-building measures for implementing strengthened environmental and social management rules. The Bank provided technical support to the WSSD for development pf social audit kits and organizing workshops on social audits in 150 GPs. The ICR confirms (para. 92) that, for the peri-urban schemes across 12 program districts, there was minimum impact on private land since the land was acquired through donations and no acquisition of private land.

b. Fiduciary Compliance

Financial management: The ICR reports)para. 93) that a Fiduciary Systems Assessment (FSA) was carried out during program preparation. The FSA identified areas of weakness and proposed mitigation measures that were incorporated in the Program Action Plan (PAP) and Program Operational Manual. During implementation, delays occurred in reporting on the utilization of allocated funds, and in consolidation and audit of program financial statements. The ICR reports (para. 93) that, although the initial project design included a PAP for strengthening accounting systems at MJP (Maharashtra Jeevan Pradhikaran) this was dropped at the first restructuring in 2019. It also reports that the implementation of the revised PAP to strengthen sector-wide expenditures reporting through the M&E system was significantly delayed.

Procurement: The ICR reports (para. 94) that, as part of PAP compliance, WSSD had to share a Procurement Post Review (PPR) report covering 15% of all contracts carried out under the program before project closing. This was significantly delayed but was finally completed and the report shared with the Bank in March 2021. The ICR reports that the Bank reviewed the report and found it to be generally in order. No complaints were reported through the PPR or brought to the Bank directly.

c. Unintended impacts (Positive or Negative)

The ICR reports (para. 67) an additional outcome (not included in the Results Framework) of the program was the strengthening of the capacity of the state training organization MEETRA (Maharashtra

Environmental and Engineering Research Agency). The program provided support to MEETRA, including, development of a new campus, preparation of a business plan, and supporting linkage with the German Corporation for International Cooperation (GTZ).

d. Other

Gender: The ICR reports (paras. 69 to 71) that by improving access and water quality in rural and peri-urban areas, the program significantly benefited women and girls by reducing the physical burden and time spent in fetching and carrying water for household needs. Women were adequately represented in various committees in the village including the Village Water and Sanitation Committees (VWSC) and the Aquifier Ground Water Management Associations. One-third of the positions were reserved for women. The ICR reports (para. 70) that an estimated 207,730 women benefited from the program. The ICR also reports that social audits were conducted in 35 villages, reaching out to about 2,000 people, during which women beneficiaries confirmed the benefits they received from the program.
Poverty Reduction and Shared Responsibility: As reported in the ICR (para. 72), the program, by design, focused on improving the quality of life and sharing the benefits of improved access and water quality with the more vulnerable parts of the population in peri-urban, water-stressed or water-quality affected areas that were previously lacking adequate service. The ICR reports (para. 72) that an estimated 430,853 people benefited from improved access to water sources of which 91,685 (21%) were from vulnerable groups (scheduled castes and scheduled tribes).

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	---
Bank Performance	Satisfactory	Moderately Satisfactory	The ICRR rates Bank performance regarding Quality at Entry as Moderately Satisfactory due to insufficient readiness for implementation and shortcomings in design of project scope and key indicators. This leads to an overall rating of Moderately Satisfactory for Bank performance.
Quality of M&E	Substantial	Substantial	---
Quality of ICR		Substantial	---

12. Lessons

The ICR (paras. 102 to 104) lists a number of lessons from which IEG derives the following lessons that are relevant for similar projects implemented in comparable environments:
1. Clearly defined program boundaries improve PfR implementation readiness: A lesson from this project was that the defined program boundaries only identified general focus areas (e.g. peri-urban, water-stressed) instead of defining the program in terms of specific geographic areas or investments. This effectively shifted the burden of identifying the specific content of the program into the implementation period. thereby causing disbursement delays and extra costs to the client. Future projects should identify PfR boundaries as specifically as possible or clearly justify when this is not possible.
2. Program DLIs' feasibility and design should align with the client's implementation capacity and should include sub-DLRs for more predictable achievement of DLIs: The initial program results and DLIs were designed from a sectoral perspective without fully considering the state's implementation capacity. Adding simple definitions and specific quantitative targets makes it more feasible for the state to implement the interventions and facilitates the DLI verification process and assessment of achievements. Future PfR operations should include DLIs with associated sub-DLRs to achieve more predictable achievements of DLIs and facilitate the implementation process.
3. Peri-urban areas need focused policies for water supply and sanitation: The experience under the project demonstrated the special nature of peri-urban areas which are rural by classification but increasingly urban in terms of population density, economic structure, and aspirations. Finalization of selection criteria contributed to substantial delays in the implementation of the peri-urban areas.

13. Assessment Recommended?

Yes

Please explain

The project represents the Bank's first PfR operation in the RWSS sector in India. The Bank is currently engaged in other water supply and sanitation PfR operations, including some in the RWSS sector, in some other states in India. The experience under the MRWSSP project could be reviewed along with that under the other operations to derive lessons learned from the collective experience.

14. Comments on Quality of ICR

The ICR is well-written, clear, and candid, and generally complies with the relevant OPCS guidelines (except in regard to length - 30 pages compared to the recommended length of 15 pages or less). The length of the ICR is justified to some extent by the complexity of the project involving state-wide interventions. The ICR presents a clear theory of change with a good diagrammatic representation of the results chain from activities to outcomes. The analysis and conclusions are generally supported by evidence. The ICR has some

shortcomings, The discussion of safeguards and fiduciary compliance is limited without an indication of the ratings over time and at project closing.

a. Quality of ICR Rating
Substantial