



1. Project Data

Project ID P133018	Project Name Zhejiang Rural Water Supply & Sanitation	
Country China	Practice Area(Lead) Water	
L/C/TF Number(s) IBRD-84240	Closing Date (Original) 31-Dec-2020	Total Project Cost (USD) 198,877,827.22
Bank Approval Date 25-Sep-2014	Closing Date (Actual) 30-Jun-2021	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	200,000,000.00	0.00
Revised Commitment	198,877,827.22	0.00
Actual	198,877,827.22	0.00

Prepared by Ebru Karamete	Reviewed by Vibecke Dixon	ICR Review Coordinator Ramachandra Jammi	Group IEGSD (Unit 4)
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2. Project Objectives and Components

a. Objectives

The same Project Development Objective were used in the Loan Agreement (page 5) and Project Appraisal Document (page 4), which were: **“to improve access to sustainable water supply and sanitation services in selected villages and towns in rural areas of Zhejiang Province”**.

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



Yes

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

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had three components:

1. Improving Water Supply and Sanitation (Appraisal amount: US\$355.87 million, of which IBRD loan is US\$193.50 million; Actual amount: US\$316.08 million, of which IBRD loan is US\$195.71 million).

This component supported construction and rehabilitation of water supply and wastewater collection and treatment facilities in the project counties.

2. Training and Capacity Building (Appraisal amount: US\$2.50 million, fully funded by IBRD loan; Actual amount: US\$0.87 million). This component included training for staff of Project Management Offices (PMOs), Project Implementation Unit (PIU), institutions involved in project implementation, and staff and operators of water companies participating in the project to enhance their O&M competency; institutional strengthening and capacity building for water companies participating in the project; and implementation of a program to monitor and evaluate the performance of wastewater treatment stations in the participating villages.

3. Project Management and Supervision (Appraisal amount: US\$3.50 million fully funded by IBRD loan; Actual amount: US\$1.80 million). This component included support for review of technical reports for subprojects eligible for project financing, as well as support for project management and supervision.

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

Cost: Project cost planned at appraisal was US\$400 million, and actual cost at closing was US\$327.5 million (82 percent of the planned amount). The reduction of the total project cost was primarily because of savings from competitive bidding during implementation.

Financing: The project was financed by IBRD that planned to provide US\$200 million at appraisal. At closing, US\$ 198.9 million was spent.

Borrower Contribution: The borrower contribution planned at appraisal was US\$200 million and the actual amount was US\$128.6 million. Borrower contribution was adjusted based on the cost savings to fully utilize the IBRD loan.

Dates: The project was approved by the Board on 25 Sept 2014 and became effective about four months later on 2 February 2015. Original closing date of 31 December 2020 was extended for six months to 30 June 2021, to complete the unfinished works.

Restructuring: During the mid-term review, according to the framework approach, the indicator targets were updated without a formal restructuring since this was already anticipated in the PAD. The project went



through one Level II restructuring that was approved on July 8, 2020. The restructuring further revised the outcome targets upwards as follows: (a) The target for number of people in rural areas provided with access to improved water sources under the project, was revised from 220,000 to 450,000. The target for people provided with access to improved sanitation facilities, was revised from 290,000 to 630,000 by closing. In addition, the loan closing date was extended by six months from December 31, 2020, to June 30, 2021 due to impact of Covid-19 pandemic, to complete construction works.

3. Relevance of Objectives

Rationale

Country and Sector Context: While in the 2000s China had made significant progress in increasing water supply sanitation (WSS) coverage in general, there were significant urban and rural disparities, and some parts of the rural population still lacked access to improved WSS services, for particularly the most vulnerable groups. As of 2012, over 290 million of the rural population were without improved sanitation and about 100 million were without improved water supply (ICR page 1). In addition, China lacked appropriate technical standards for rural wastewater treatment. Only a small portion of rural sewage was collected this led to environment pollution issues. There was poor or inadequate O&M and water companies needed increased revenues, thus adequate O&M budget and improved operational efficiency including reducing non-revenue water. Many water companies were in need of equipment, effective managerial tools, and experienced staff.

Relevance to Government Priorities and Strategies: Improving equitable and sustainable access to safe and improved WSS in the rural areas was a national priority, highlighted in both the 11th and 12th National Five-Year Plans (FYs, 2006–2010, 2011–2015). The New Countryside Development (NCD) program was developed under the 11th FYP and aimed to improve rural WSS service coverage, reduce rural and urban disparities, and enhance the sustainability of WSS services. promoted development of infrastructure to address safety, adequacy, and sustainability aspects of drinking water; waste management services; and environmental pollution reduction in rural areas. Zhejiang Province, which had all the issues described above, was selected as the pilot province of the NCD program. In 2011, Zhejiang Province submitted the proposal to the World Bank, requesting the World Bank's support to overcome the remaining institutional barriers to scaling up rural water services in a financially sustainable way. Four counties/districts (or county-level cities), representative of different rural realities in Zhejiang and eastern China, were selected to participate in the project.

Relevance to World Bank Strategies: The project development objectives were highly relevant to the World Bank's strategies at appraisal and at closing. The project supported key themes under two engagement areas of the Country Partnership Strategy (FY2013–2016): (a) WSS under the engagement area of Supporting Greener Growth and (b) policies and delivery systems to promote rural-urban integration under the engagement area of Promoting More Inclusive Development. The project directly supported the two engagement areas of the Country Partnership Framework for China for FY2020 to 2025: (a) achieving more effective and sustainable infrastructure financing and revenue mobilization under the engagement area of 'Advancing Market and Fiscal Reforms' and (b) reducing water pollution and strengthening sustainable natural resource management under the engagement area of 'Promoting Greener Development'. The



project also supported the CPF's cross-cutting theme of 'Cooperating on Global Knowledge and Development' by promoting South-South cooperation and knowledge exchange.

However, while there is clear alignment between the project's development objectives and the country- and WB strategies, the objective is pitched rather narrowly, i.e. only the access dimension of service delivery outcomes are included. However, other key outcomes such as quality, reliability and /or affordability could also have been articulated as part of the objectives to be able to assess the complete picture for the project.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Improve access to sustainable water supply services in selected villages and towns in rural areas of Zhejiang Province.

Rationale

Theory of Change (TOC):

The ICR prepared a logical TOC that clearly showed how inputs and outputs and outcomes were linked. Water supply infrastructure (construction and rehabilitation of raw water mains, water distribution networks, and water treatment plants) were to contribute to the outcome of improving access to sustainable water supply services in the rural areas of Zhejiang Province. In addition, the rehabilitation of water distribution networks was further expected to reduce the non-revenue water (NRW) and therefore would increase water company revenues and improve operational efficiency.

Sustainability considerations were included as part of the results framework in terms of financial and environmental aspects. Parallel institutional support and capacity building would contribute to the long-term sustainability of the investments. The project would adopt appropriate water and wastewater treatment processes and technology that were low cost, low energy, simple, and affordable to operate and maintain, which would improve operational and financial sustainability. From the managerial perspective, the project would establish O&M management systems for the infrastructure investments and would strengthen the institutional capacity of local water companies. From the environmental perspective, the project would increase rural sewage collection and improve sewage treatment, which would further reduce water pollution and contribute to environmental sustainability.

Outputs:

- At project closing 153,389 households with piped water connections benefited from infrastructural improvements, which exceeded the revised target of 130,000, target exceeded.



- All of the water companies except one (Longquan Rural Water Supply Station) did meet the compliance criterion for financial sustainability by the time the project closed (ICR, Table 4.7, p.68), target met. To assess the financial sustainability of the water companies, an Intermediate Indicator was established to monitor the cost recovery of water supply at the water treatment plants and all water companies except one- Longquan Rural Water Supply Station- achieved the indicator (Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter <1). In addition, an overall cost recovery legal covenant of “total revenues equivalent to and not less than its total operating expenses, excluding depreciation” was included in the Project Agreement to make sure the project would be financially sustainable.
- 2,865 staff were trained as against a revised target of 2,800 staff, target achieved. Tailored trainings were provided to enhance the technical capacity of staff to utilize the smart water systems and model equipment (.). (No indicator measured the outcome of these trainings).
- The project supported preparation and implementation of six O&M plans, achieving the revised target of six plans.

The ICR reported on the following additional output achievements not covered in the Results Framework and therefore lacking target values:

- Regarding tariff rate increases, three counties and one district of the project made a series of adjustments to the water supply and sewage tariff since 2015. The project team informed IEG that the growth rate of total tariff including water tariff and wastewater tariff from appraisal stage to ICR stage is 12% for Anji, 16% for Fuyang, 40% for Longquan, and 63% for Tiantai.
- The ICR reported that (page 16) the non-revenue water (NRW) of project water companies in Anji and Fuyang was reduced by 11.7 percent and 3.5 percent, respectively, from 2018 to 2021. Other company figures and other years on NRW was not reported.
- The local governments decided to transfer the O&M of the small water supply facilities invested by local governments under other projects to these water companies as a result of the improved capabilities of the water companies. The O&M of 933 small water supply stations were thus transferred. A total of 320,575 people indirectly benefit from these O&M services.
- The companies developed smart water systems under this project, which enabled automatic monitoring and regulation of flow and pressure in the water supply networks. The companies were also equipped with modern O&M equipment, such as leakage detection equipment and emergency management vehicles. No data on flow, continuity and leakage levels were provided by the ICR.
- The project constructed and rehabilitated water mains, distribution networks, and pumping stations, and financed the construction of eight wastewater treatment plants (WTPs)
- Spring water sources, which were unsafe raw water sources, were replaced by dam water in the project counties, and regional treatment plants were also built to supply safe drinking water to the nearby villages.

Outcomes:

- A total of 550,408 people directly benefited from the improved water sources (including 273,844 female population), which exceeded the revised target of 450,000 (including 225,000 female population target).

The project achieved its first objective, to improve access to sustainable water supply services in selected villages and towns in rural areas of Zhejiang Province to a high degree. The project exceeded its indicator



targets on piped household connections, number of beneficiaries, O&M plans and financial sustainability. While the project indicators in the Results Framework did not cover all aspects sufficiently, the ICR included additional results on financial sustainability, O&M and NRW. The ICR could also report on reliability, quality and affordability of water supply services to buttress the discussion of the project's achievements. Thus, achievement of this objective is rated **high**.

Rating
High

OBJECTIVE 2

Objective

Improve access to sustainable sanitation services, in selected villages and towns in rural areas of Zhejiang Province.

Rationale

Theory of Change:

Similar to the first objective, the sanitation infrastructure (rehabilitation of septic tanks, construction of sewerage collection networks and end-of-pipe small-scale domestic wastewater treatment facilities in villages, and municipal wastewater treatment plants (WWTPs) in the four project counties) were to contribute to the outcome of improved access to sustainable sanitation services in the rural areas of Zhejiang Province. From a technical perspective, the project would propose new standards for rural sanitation facilities.

Outputs:

The following outputs were completed:

- The project achieved 92,072 household sewer connections. This was 108 percent of the revised target of 85,000 connections. The revised target was 95,000 at MTR, but this was later reduced to 85,000. The ICR noted that (page 17): the reduction in the end target was due to an adjustment of the number of households connected to the sewer systems to fit local geographical conditions at the design stage to ensure more cost-effective investments. In Fuyang City, some villages located alongside Fuchunjiang River, supposed to be connected to the sewer system, were taken out of the project scope as the land use master plan for the areas was revised by the government.
- In terms of environmental sustainability, the project reduced pollution levels on water resources evidenced by the biochemical oxygen demand (BOD) load reduction (BOD load reduction = volume of wastewater treated × (inflow BOD concentration – outflow BOD concentration)). The BOD reduction was 4,299.8 tons/year compared to the revised target of 2,796 tons/year. The target was revised due to a correction in calculation of BOD load reduction.
- Staff from the county water companies and PIUs participated in various national and international trainings and workshops, totaling 2,865 person-days, exceeding the target of 1,200 person-days. The trainings and workshops covered various project management aspects as well as the technical capacity enhancement to strengthen the staff capacity to effectively operate wastewater treatment



stations, utilize the smart water systems, and conduct better O&M. No indicator measured the outcome of these trainings.

The ICR reported on the following additional output achievements not covered in the Results Framework and therefore lacking target values:

- Sustainable O&M processes were established. The water companies and the communities signed O&M agreements that defined the scope and level of services to ensure the sustainability of O&M. The villagers were responsible for simple maintenance of small facilities (septic tanks, kitchen oil separators, and sewers) within the villagers' yards, while the companies would respond to service requests for a fee which was affordable by the villagers. For the other facilities (for example, sewer networks, manholes, pump stations, and sewerage treatment stations in the villages), the companies were fully responsible for day-to-day O&M. Each community dedicated one or two villagers to regularly check these sanitation facilities and report the issues to the water companies.
- In terms of sustainability of sanitation infrastructure, 1,722 small wastewater treatment stations were transferred to the water companies to ensure sustainable O&M in the future. A total of 646,550 people indirectly benefit from these O&M services. The project promoted sustainable wastewater treatment technology with low cost, low energy, and simple and affordable O&M requirements (i.e., bio-trickling filter which is one of the least cost technologies).
- The project supported the preparation of provincial technical rural sewage discharge standards, considering the realities and needs in the rural areas of Zhejiang Province. Zhejiang Provincial Government officially adopted the 'Discharge Standard of Pollutants for Rural Wastewater Treatment Facilities on July 1, 2015, making Zhejiang a leader in the demonstration of good WSS practices.

Outcome:

- At project closing 715,854 people with improved sanitation services, which exceeded the revised target of 700,000. Female population served was 355,272, which was also above the revised target of 350,000.

The project achieved its second objective, to improve access to sanitation services in selected villages and towns in rural areas of Zhejiang Province to a high degree. The project exceeded its revised targets on sewer connections, pollution levels and number of beneficiaries. In addition, the ICR provided information on the sustainable O&M arrangements as well as project's contribution to adopt rural sewage standards. Thus, based on the information provided, achievement of the objective is rated high.

Rating
High

OVERALL EFFICACY



Rationale

The efficacy is rated High, as the project fully achieved its objectives, evidenced by meeting and exceeding targets on access to water supply and sanitation. In addition, the ICR provided relevant information and evidence regarding improvements in the sustainability of the WSS services in the financial, O&M and environmental aspects.

Overall Efficacy Rating

High

5. Efficiency

Economic Analysis: The project conducted cost effectiveness analysis -least cost analysis as the benefits were hard to quantify at appraisal. For each WSS subproject, the cost of various alternatives was assessed over 20 years at a discount rate of 12 percent. Final selection was made on a least-cost basis using Net Present Value (NPV) and Average Incremental Cost (AIC). At the project completion stage, the same method was adopted for WSS subprojects to verify the efficiency and effectiveness of the selected option again. And the NPV and AIC of the selected scenario was recalculated, based on the actual capital and operating cost and water or wastewater treatment capacity of the subproject, to identify if the selected option is still the least-cost scenario. The analysis showed that the selected option was still the least-cost scenario due to competitive bidding, better construction management, and improvement in operation management. However, the project could have calculated the ex-post ERR to better measure economic efficiency of the project, as the actual benefits became observable and quantifiable.

Financial Analysis: The financial covenant in the Project Agreement from 2015 was that all PIUs have to meet the cost recovery requirements (i.e., the project companies generating total revenues equivalent to not less than their total operating expenses, excluding depreciation); this was met during the project period by all companies, except one.

Fiscal Analysis: According to the financial sustainability analysis of the PIUs, the sewage treatment part and the rural drinking water part of other PIUs need government subsidies to balance the operation expenditure, capital cost, and repayment of the principal and interest of the loan. While tariff is being charged for WSS services, it is not sufficient to cover the O&M costs, thus the government provide subsidies to cover the gaps. The results of the fiscal revenue projection and comparison with local governments' required contribution to PIUs show that none of the local governments will need to use 3 percent or more of their fiscal revenues to provide necessary funding requirement. The percent ranges from 0.31 to 1.06 percent. This means that fiscal subsidy funding requirement for financial sustainability of PIUs will not have a significant financial impact on the fiscal revenue of the participating local governments.

Administrative/Operational Efficiency: The project's closing date was extended for six months mainly caused by the COVID-19 outbreak in China at that time. Most of the results were achieved before the original project closing date of December 31, 2020. All the planned activities were fully completed by closing and the loan was disbursed at 99.44 percent. The project management cost (Components 2 and 3) was estimated at US\$6 million



at appraisal; the actual cost at project closure was US\$2.67 million. This efficiency gain was mainly caused by savings from project management consultant costs.

The project could benefit from a cost benefit analysis in addition to the cost effectiveness analysis to capture incremental project benefits compared to costs, However, the ICR provided evidence that the project implemented the least cost option and also there were efficiency gains on project management. Considering all these aspects, the efficiency of the project is rated High.

Efficiency Rating

High

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 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

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

6. Outcome

The project's objective is **substantially** relevant to the strategies of the World Bank and the Government both at appraisal and at closing. The Efficacy in achieving the development objective is rated **high** based on the evidence on improved access to sustainable water supply and sanitation services in selected villages and towns in rural areas of Zhejiang Province. Efficiency is rated **high** based on project's cost effectiveness, financial and operational/administrative efficiency. Based on these three sub-ratings, the project's overall outcome is rated **highly satisfactory**.

a. Outcome Rating

Highly Satisfactory

7. Risk to Development Outcome

The ICR's assessment of the risks to the sustainability of development outcomes was low, which is concurred by IEG and summarized below:



Technical (O&M): The rural WSS schemes invested under the project were properly designed and constructed and are being operated and maintained by professional water companies with the support of communities.

Financial: The Government has provided adequate subsidies to the operators to cover the difference between O&M cost and tariff revenues. The fiscal burden of the counties that provide subsidies is minor.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project design and implementation arrangements were based on good practices and lessons learned from ongoing or completed rural WSS projects in China. Some key lessons used were: (i) the importance of using appropriate water and waste water treatment processes and technology that require low investment, low energy, and are simple and affordable to operate and maintain; (ii) adequate subsidies for O&M of rural sanitary facilities needs to be ensured up front based on known tariffs and projected O&M costs; (iii) Operators should be properly identified and assessed during project preparation stage and their technical, financial, and managerial skills strengthened during project implementation; (iv) availability of adequate counterpart funding by the project counties.

The project's technical design was sound; the proposed technologies were reliable and easy to operate and required low capital investment and operational costs. The project had appropriate implementation, M&E design, safeguards, fiduciary, and risk mitigation arrangements. A framework approach was adopted. This allowed project preparation to be streamlined, and the results of the 1st batch investments would inform the selection and implementation of the 2nd batch investments.

Quality-at-Entry Rating
Satisfactory

b. Quality of supervision

The ICR noted that (page 33), the World Bank provided timely guidance and assistance to the client. The World Bank provided capacity building of the project management entities (local governments, ZPMO and PIUs). The borrower appraised the World Bank performance as Highly Satisfactory in the borrower's ICR.

The supervision missions were conducted twice per year, with candid Implementation Status and Results Reports. Problems arising during project implementation were identified in a timely manner, with helpful recommendations provided. The World Bank team was diligent in ensuring that all fiduciary procedures were followed. There was no turnover of task team leader (TTL) for this project, with the same TTL from identification to completion, which ensured the stability of project management and improved overall management efficiency.



Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The Results Framework was logical with linked outputs, outcomes and impacts. However, it lacked indicators on reliability, NRW, quality and affordability of the service. Also, there were no PDO level indicators to measure the 'sustainability' aspect of the PDO; indicators for environmental and financial sustainability were only included as intermediate outcome indicators. According to the framework approach, the target values were defined and set up to 2017 as the subprojects would be appraised in batches. The target values for 2018 and beyond were determined during the MTR. This framework approach allowed more realistic target setting during the MTR.

b. M&E Implementation

The M&E data were collected and presented in semiannual reports. The progress reports were complemented by adequate and timely monitoring reports from external (third party) agencies on the implementation of the Environmental Management Plan (EMP) and Resettlement Action Plans (RAPs). The local village committees were mobilized to collect and verify the data of beneficiaries and household connections with the support of the PIUs to ensure data reliability. Although not directly stated in the project M&E, the PIUs regularly monitored the water quality of effluent from the rural sewage treatment stations in the villages, to ensure compliance with the rural wastewater discharge standards..

c. M&E Utilization

The M&E data collected were used to inform project implementation and support project management, to monitor progress, set realistic end targets during the MTR, identify bottlenecks, and facilitate decision-making. The engineering design of the recommended technology was reviewed, optimized, and standardized across all project counties.

M&E Quality Rating

Substantial

10. Other Issues



a. Safeguards

Environmental Safeguards. The project was classified as Category B-partial assessment and triggered three environmental safeguards policies: Environmental Assessment (OP/BP 4.01), Physical Cultural Resources (OP/BP 4.11), and Safety of Dams (OP/BP 4.37). During project preparation, the Environmental Impact Assessment (EIA) was conducted and a standalone EMP was developed to manage the project-related environmental risks/impacts following the policy requirements, which also includes an Environmental and Social Management Framework (ESMF) for subprojects that are not known at appraisal. As part of the EIA and EMP, the Dam Safety Plans and Emergency Preparedness Plans were also prepared by a Dam Safety Expert to address dam safety issues associated with the project-financed structures relying on upstream existing dams. The ICR noted that (page 30), the project complied with environmental safeguards and performance during implementation. Throughout implementation, there was no reporting of environmental complaints or occupational, health, and safety accidents. During operation, the environmental performance of project-supported water supply and wastewater facilities was also regularly monitored to support their performance management, which showed full compliance by project closing. No major issue was identified.

Social Safeguards. OP/BP 4.12 - Involuntary Resettlement was triggered due to land acquisition and population relocation entailed by civil works for the construction of water supply plants and extension of WWTPs in three participating counties, as well as temporary land occupation by pipeline network construction for local sanitation establishment in all four project counties. The resettlement was implemented in full consultation with PAP, and it was closely monitored by an external professional agency and consecutively supervised by the World Bank task team. By the project closure, a total of 29.91 ha of rural land was requisitioned, which affected 486 people in 141 households, among whom 8 households were relocated. In addition, three enterprises were partially affected, and 110.64 ha of land was temporarily occupied during project implementation. All of the land was reclaimed and returned in the end. All the PAP were compensated in time and in full as planned in the RAPs which were developed for individual subprojects in participating counties. Over 98 percent of the PAP felt satisfied with the resettlement results. The project's overall social safeguards performance was rated Satisfactory.

Grievance redress mechanism (GRM). Due to the participatory and consultative approach, most of the concerns of the villagers could be resolved before and during the construction. A robust grievance redress mechanism was also in place during the construction stage as per the project design. The GRM was accessible to local communities and beneficiaries. With all these efforts, the World Bank task team did not receive any complaints during project implementation.

b. Fiduciary Compliance

Financial Management (FM). The project FM system provided accurate and timely information that the loan was being used for the intended purposes. The withdrawal procedure and funds flow arrangement were appropriate. The loan proceeds were disbursed for project activities in a timely manner. The ICR reported that (page 31) that there were no significant FM issues throughout the project implementation and the FM-related issues or weaknesses raised during FM implementation could be resolved on a timely basis. The project audit reports were all with unqualified audit opinions.



Procurement. Procurement of works, goods, and consultant services was carried out efficiently and satisfactorily in accordance with the legal covenants and the World Bank’s procurement policy and procedural requirements. The World Bank task team provided assistance and clarified procurement-related issues to the implementing agencies. Post reviews were carried out on a random basis, which indicated that procurement was carried out satisfactorily. All contracts were procured and signed following the World Bank’s Procurement and Consultant Guidelines.

The project also provided training to project management officials for utilization of international funding in project preparation, design, project management, procurement, contract management, construction supervision, FM, and disbursement and project management methodology.

c. Unintended impacts (Positive or Negative)

No unintended impacts were reported.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Highly Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	High	Substantial	The M&E design lacked some relevant indicators.
Quality of ICR	---	Substantial	

12. Lessons

The ICR provided various lessons, some of which are summarized as follows:

In a situation where project implementation covers a large number of scattered village subprojects, the framework approach may help to streamline project preparation and implementation. The project implemented the framework approach, which allowed the counterparts to propose the potential interventions batch by batch and helped prioritize the project intervention according to emerging needs and streamlined the project preparation. This also allowed the adaptive management of ‘learning by doing’. The lessons learned from early implementation particularly on technical matters and O&M were incorporated into the design and selection of the next batch’s intervention. The good technical and O&M experiences were further scaled up in the following implementation.



There is a greater chance of ensuring sustainable O&M, when community participation is employed allowing ownership of communities. Participatory and consultative approach was adopted throughout the project, and the local communities participated in the process of planning-design-construction-O&M. The early involvement of local communities in deciding the locations of sewers, septic tanks, and sewage treatment stations could avoid questions and delays during the project implementation. The governments transferred the ownership of some small facilities to villagers, who are responsible for the day-to-day maintenance. The project showed that with increased ownership, villagers usually take better care of the facilities and make efforts to keep them functional, which further reduces the O&M burden on the water companies.

The capacity strengthening of professional water companies is a key factor in achieving the outcomes. The project included comprehensive interventions to enhance the technical, financial and institutional capacities of the professional water companies at county level. As a result, these companies are able to look after the whole process of master planning, engineering design, construction, and O&M of rural WSS schemes in the villages. This institutional setup has proven successful and served as a pilot for similar rural WSS activities. Since 2020, the Ministry of Water Resources and the Ministry of Housing, Urban and Rural Development (MOHURD) have also encouraged local governments to transfer O&M of schemes from communities/local governments to professional water companies.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The report was concise, provided a detailed overview of the project and followed the guidelines. The theory of change of the project clearly outlined the outputs, outcomes and impacts. The ICR's lessons were clear and based on evidence. However, there were some shortcomings in the completeness of evidence and data in the efficacy section, additional data on service indicators was needed. In addition, the efficiency section could have benefited from a cost benefit analysis to capture and present the project's incremental benefits.

a. Quality of ICR Rating

Substantial

