



RESTRUCTURING PAPER
ON A
PROPOSED PROJECT RESTRUCTURING
OF
ZHEJIANG RURAL WATER SUPPLY AND SANITATION PROJECT
APPROVED ON SEPTEMBER 25, 2014
TO
PEOPLE'S REPUBLIC OF CHINA

WATER

EAST ASIA AND PACIFIC

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ABBREVIATIONS AND ACRONYMS

E&S	Environmental and Social
FM	Financial Management
IBRD	International Bank for Reconstruction and Development
IO	Intermediate Objective
LRWAC	Longquan Rural Water Affairs Co., Ltd
MIS	Management Information System
MTR	Mid-term Review
O&M	Operation and Maintenance
PDO	Project Development Objective
PIU	Project Implementation Unit
WSS	Water Supply and Sanitation
WTR	Water Treatment Plant
WWTP	Wastewater Treatment Plant
ZPMO	Zhejiang Project Management Office
PMO	Project Management Office



BASIC DATA

Product Information

Project ID P133018	Financing Instrument Investment Project Financing
Original EA Category Partial Assessment (B)	Current EA Category Partial Assessment (B)
Approval Date 25-Sep-2014	Current Closing Date 31-Dec-2020

Organizations

Borrower People's Republic of China	Responsible Agency Zhejiang Provincial Economic Information Center
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Project Development Objective (PDO)

Original PDO

The proposed Project Development Objective (PDO) is to improve access to sustainable water supply and sanitation services in selected villages and towns in rural areas of Zhejiang Province.

Summary Status of Financing

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net Commitment	Disbursed	Undisbursed
IBRD-84240	25-Sep-2014	25-Nov-2014	02-Feb-2015	31-Dec-2020	200.00	164.25	35.75

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No



I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

A. Project Status

- 1. Background.** The IBRD loan of US\$200 million for the Zhejiang Rural Water Supply & Sanitation Project (the Project) was approved by the Board on September 25, 2014 and became effective on February 2, 2015. The original closing date for the loan is December 31, 2020. The Project Development Objective (PDO) is to improve access to sustainable water supply and sanitation services in selected villages and towns in rural areas of Zhejiang Province. The project comprises three components: (i) Improving Water Supply and Sanitation; (ii) Training and Capacity Building; and (iii) Project Management and Supervision.
- 2. Implementation Status and Achievements to Date.** Progress towards achieving the PDO and the Implementation Progress are both rated Satisfactory. As of March 2020, two PDO indicators (the number of people in rural areas provided with access to improved water sources under the project, and the number of people provided with access to improved sanitation facilities under the project) have reached 78 percent and 87 percent of their targets, respectively. As of April 24, 2020, the loan has disbursed US\$164.25 million (or 82.1 percent of the total loan proceeds). The PDO remains relevant to the government priorities and strategies. The PDO also remains relevant to the World Bank Group's China Country Partnership Strategy for 2013-2016 (Report No. 67566-CN, dated October 11, 2012), and especially to the theme of supporting greener growth and promoting more inclusive development.
- 3.** The status of implementation of each component is summarized below.

Component 1: Improving Water Supply and Sanitation. This component includes construction and rehabilitation of water supply and wastewater collection and treatment facilities in the project counties. A framework approach was adopted in the project design to streamline project preparation and implementation, to yield earlier results, and to inform future investments. At the appraisal stage, four Wastewater Treatment Plants (WWTPs), three Water Treatment Plants (WTPs), and 61 village rural sewage treatment stations were identified and appraised. Together, these accounted for 53 percent of the total investment. Later during implementation, an additional four WWTPs, five WTPs, and 96 village rural sewage treatment stations were identified, appraised, and implemented. To date, out of the total eight WWTPs, five have been completed or are in trial operations, while the remaining three are expected to be commissioned in early July 2020. Out of the total eight WTPs, five have been completed, while the remaining three are expected to be commissioned in early July 2020. Out of the 157-village rural sewerage treatment stations, 139 have been built and put into operation, while the remainder have either nearly been completed or are currently being commissioned. In Longquan City, some of the sewer pipelines are still being constructed. In Tiantai County, the procurement for a smart water platform is being processed.

Component 2: Training and Capacity Building. This component includes providing specific training and assistance to local water companies to improve their technical, financial, and overall management performance, including their technical capacity for the operation and maintenance of all water supply and sanitation (WSS) systems. To date, staff from the Zhejiang Project Management Office (ZPMO) and Project Implementation Units (PIUs) have participated in various trainings and workshops, totaling 2,814 person-days, which exceeds the end target value of 1,200 person-days. The training sessions covered a range of topics, including: procurement, financial management, project management, operation and maintenance (O&M), among others.

Component 3: Project Management and Supervision. This component includes providing project management assistance to all relevant agencies at both the provincial and county levels. ZPMO, Fuyang District, Anji County, Tiantai



County, and Longquan City have recruited experienced project management consultants to assist in day-to-day project management.

4. **Environmental and Social (E&S) Safeguards.** The project is in compliance with Bank safeguard policies, and the respective E&S performance is rated Satisfactory.
5. **Procurement.** Project procurement has complied with Bank Procurement Guidelines and Consultant Guidelines. There have been no significant issues relating to either procurement or contract management. Performance is rated Satisfactory.
6. **Financial Management (FM).** The project is in compliance with Bank FM policies. There are neither outstanding audits nor any audit qualifications. Performance is rated Satisfactory.
7. **Compliance with Covenants.** The project is in compliance with legal covenants.

B. Rationale for Restructuring

8. In order for the project to complete all of the planned works and to fully meet the development objectives, and respond to the context of Covid-19 and an institutional reform in Longquan City, it is proposed that the project include the following changes during the restructuring:

(a) Extending the Loan Closing Date from December 31, 2020 to June 30, 2021

9. The outbreak of Covid-19 stopped almost all of the project's construction activities during the period from end of January to March of 2020. In April 2020, site construction gradually resumed, although at a slower pace because the mobilization of construction workers and equipment were not yet fully back to normal. In particular, in Longquan City, there are a number of sewer network construction contracts that are still ongoing. In Tiantai county, the procurement of a smart water platform is being processed, and due to the situation with Covid-19, orderly completion of these contracts by the end of 2020 (as originally planned) will not be possible. Achievement of PDO and intermediate outcome indicators would be also at risk. Completion of these remaining activities will ensure that households will be connected to the WWTPs in Longquan City and water supply and sanitation service being provided to the customers in Tiantai County will be improved. Therefore, PDO will be fully achieved and the Bank loan will be fully disbursed.
10. For these reasons and having re-assessed the overall implementation progress and outstanding works, the proposal is to extend the closing date of the loan by six months so that all project works can be fully and properly completed. This will be the first extension of closing date of this project.

(b) Changing Project Implementation Unit (PIU) in Longquan City

11. In late 2019, Longquan City initiated institutional reforms that established a professional water company, namely Longquan Rural Water Affairs Co. LTD (LRWAC), to be responsible for construction management, operations, and maintenance of water supply and sanitation facilities in the rural areas of the city. Under these reforms, Longquan City will transfer all of the staff, assets, debts, and roles and responsibilities of the original/current project implementation unit (PIU) (i.e. Longquan Rural Water Supply Station), to the newly established LRWAC. The original PIU arrangement was with Longquan Rural Water Supply Station, which is a government organization affiliated with the Longquan Water Resource Bureau. Therefore, changing the identity of the PIU from a semi-governmental institution to a professional water company is more in line with best international and domestic practices, and it is expected that these institutional changes will also help to improve the efficiency of project implementation and WSS service delivery during the remaining period of the project. The Bank team has assessed that LRWAC has the capacity



of construction management, operation and maintenance and therefore is capable of implementing the project. It is also assessed that this overall institutional transfer will not cause any implementation delays in the short term, and that after the reform, the institutional arrangement of Longquan City for rural water supply and sanitation will be the same as those for the other project counties (i.e. under operations by a professional water company).

(c) Revision of the Results Framework

12. According to the framework approach, at the time of project appraisal, project indicators and targets were defined and set up to the year 2017. In November 2017, a project mid-term review was initiated, and the results framework was revised based on the findings and suggestions of the MTR and documented in the subsequent ISR (seq No.8, Archived on 18-June-2018). Since early 2018 and until now, there have been some changes to the scope of the newly added subprojects, and some of the results indicators and targets need to be revised accordingly. The results framework also needs to be adjusted to match the proposed loan extension date and to reflect the updated scope of subprojects.

(d) Changing Cost of Components

13. The Project cost has been revised based on the actual costs to date and projections of the remaining investments until the loan is closed. At appraisal, under the framework approach, the project cost was estimated at CNY2.46 billion (US\$400 million¹ at an exchange rate of US\$1 = CNY6.1581). At present, the revised total project cost is CNY1.97 billion (US\$303.57 million at an exchange rate of US\$1 = CNY6.5).
14. The reduction in the overall project cost is attributed to savings from competitive bidding during implementation and adjustment of the project scope after project MTR. Because of the loan savings and adjustments to component costs, the total amount of counterpart funding has also been adjusted from US\$200 million to US\$103.57 million in order to ensure that the US\$200 million IBRD loan is fully utilized.

(e) Changing of Disbursement Estimates

15. Given the loan closing date will be extended by six months from December 31, 2020 to June 30, 2021, the disbursements estimate needs to be adjusted accordingly to reflect this change.

Risk Assessment

16. The overall risk of the project was rated substantial at appraisal stage. In the ISR of November 26, 2015, it was downgraded to Moderate given that risks associated with project management capacity, large number of scattered sub-projects over a wide geographical area, financial sustainability and local counterpart funding were substantially mitigated and overall implementation progress was good. This moderate risk rating was reviewed at project MTR in November 2017 and maintained through to the last ISR of March 2020, in which the impact of Covid-19 was assessed. Since then, the impact of Covid-19 to the project has not deteriorated further so that a moderate risk rating will be maintained.

II. DESCRIPTION OF PROPOSED CHANGES

¹ In the PAD, the total cost of US\$400 million is presented as sum of: 1) cost of Component 1 (US\$355.88 million), Component 2 (US\$2.5 million) and Component 3 (US\$3.5 million), totaling US\$361.87 million; 2) physical and price contingencies (US\$35.6 million); 3) front end fee (US\$0.5 million), and 4) interest during construction (US\$2.03 million). The revised cost of each component includes all these costs.



17. The proposed restructuring requests: (a) extending the loan closing date for six months; (b) changing the project implementation unit; (b) revision of the results framework, and (d) adjusting the project cost. The first two changes will require an amendment to the loan agreement.

(a) Extending the Loan Closing Date (from December 31, 2020 to June 30, 2021)

18. As elaborated above, the extension of project period for six months from December 31, 2020 to June 30, 2021 is proposed in order to complete the remaining works, and in direct response to the disruptions caused by the unforeseen Covid-19 outbreak and, finally, to achieve the PDO. The Implementation Plan has been updated and is included in Annex 1 and the project contract implementation status with next step planning is included in Annex 2 to this restructuring paper. The Bank received a letter from the Ministry of Finance on April 26, 2020 requesting a six-month loan closing date extension.

(b) Changing Project Implementation Unit in Longquan City

19. Consistent with the institutional reforms mentioned in Section I-B, the PIU in Longquan City is proposed to be changed from Longquan Rural Water Supply Station to a newly established professional water company, called the Longquan Rural Water Affairs Co., LTD. This change will improve the O&M and service delivery of all of the rural water supply schemes in Longquan City.

20. After project restructuring is approved, Longquan City will enter the same subsidiary loan agreement with LRWAC as it did with Longquan Rural Water Supply Station after project effectiveness. Longquan City is also committed to support LRWAC to comply with project’s legal covenants on financial viability and project sustainability. The task team will supervise compliances through regular implementation support missions. Longquan City and LRWAC are committed to comply with legal obligations for the PIUs in the Project Agreement. Accordingly, apart from revising Appendix 2 of the Loan Agreement to include the new PIU, there is no need to amend the Project Agreement.

(c) Revision of the Results Framework

21. As mentioned above, to reflect changes of the subproject scopes after project MTR, a revised result framework is proposed, which includes revisions of the targets as well as to adjust the end date of all results indicators to reflect the proposed new closing date, as detailed in the table below.

Table 1: Revisions of Results Indicators

Indicator Name	Revised Target	Description
PO-1 Number of people in rural areas provided with access to improved water sources under the project	450,000	End target at project MTR is 400,000. The increase in the end target is because water treatment plants in Tiantai County and Longquan City served more population than estimated at project MTR.
PO-2 People provided with access to improved sanitation facilities under the project	630,000	End target at project MTR is 700,000. It is revised to 630,000 through this restructuring. The reduction in the end target is because, at detail design stage, the number of households connected to the sewer systems were adjusted to fit local geographical conditions to make sure the investments are more cost-effective. In Fuyang City, some villages located alongside



		<p>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.</p>
<p>IO-1.1 Piped household water connections that are benefiting from rehabilitation works undertaken by the project</p>	<p>130,000</p>	<p>End targets at project MTR is 45,000. At project appraisal it only includes the piped household water connection newly constructed under the project. Actually, the project also benefits many existing piped water connections whose water source are shifted from unreliable ones to the safe and reliable water sources financed by the Project. Therefore, through this restructuring, this amount of connection is included in this IO indicator, the end target is increased accordingly.</p> <p>In the last ISR of March 2020, the Actual (current) number is 174,444. Zhejiang PMO confirmed that this is a typo in its report to the Bank; it should be 17,444.</p>
<p>IO-1.2 New household sewer connections constructed under the project</p>	<p>85,000</p>	<p>End target at project MTR is 95,000. It is revised to 85,000 through this restructuring. The reduction in the end target is because, at detail design stage, the number of households connected to the sewer systems were adjusted to fit local geographical conditions to make sure the investments are more cost-effective. 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.</p> <p>In the last ISR of March 2020, the Actual (current) number is 87,794. It should be 60,000. Zhejiang PMO advised that some household connections are miscounted in its report to the Bank.</p>
<p>IO-1.3 Volume (mass) of BOD pollution loads removed by the treatment plants under the project</p>	<p>2,796 t/a</p>	<p>The end target at MTR is 4,325. The BOD load reduction is calculated as below</p> $\text{BOD load reduction} = \text{volume of wastewater treated} \times (\text{inflow BOD concentration} - \text{outflow BOD concentration})$ <p>After MTR in November 2017, it was found that, when BOD load reduction was calculated, the volume of wastewater treated was determined as 100% of installed capacity. This is not correct. The scale of the WWTPs under the project are designed that, at early stage of operation (or at project closing), the volume of wastewater treated only reaches its 70% of installed capacity, enabling WWTPs have the capacity to meet growing demands in the future. Therefore, this calculation error should be corrected through this restructuring.</p> <p>Secondly, the inflow BOD concentration in the WWTPs are found lower than what designer estimated in the technical design. This phenomenon is recently found being very common in East Asia,</p>



		<p>mainly attributed to local light diet structure, sewer leakage and storm and ground water infiltration, etc.</p> <p>Thirdly, the large number of household septic tanks installed in Longquan City just a few months before project closing will substantially reduce BOD load in the sewer system as most of the fecal substance will be settled in the newly-installed septic tanks, therefore the inflow BOD concentration of WWTPs at this particular stage will be lower than normal level.</p> <p>Taking all these factors into account, through this restructuring, the end targets of BOD load reductions are reduced to 2,796. In the last ISR of March 2020, the end target is 4,049. This is an added-up error; it should be 4,325.</p>
- Fuyang WWTP (Phase 4)	2,500 t/a	End target at project MTR is 3,984. In the last ISR of March 2020, the Actual (current) number is 2,675. Zhejiang PMO confirmed that this is a calculation error in the report sent to the Bank; the real BOD load reduction for 2019 should be 2,500.
- Anren WWTP	15 t/a	End target at project MTR is 33.
- Badu WWTP	11 t/a	End target at project MTR is 23
- Xiaomei WWTP	4 t/a	End target at project MTR is 9
- Chatian WWTP	4 t/a	End target at project MTR is 9
- Lanju WWTP	4 t/a	End target at project MTR is 9
- Jinxi WWTP	3 t/a	End target at project MTR is 8
- Meixi WWTP	255 t/a	This indicator has no change since MTR (in the ISRs it was rounded up as 250). Apart from receiving domestic wastewater, Meixi WWTP also receives industrial wastewater from nearby industrial parks. Its inflow BOD concentration is higher than the other WWTPs. It is assessed that current end target is reasonable.
IO-1.4 Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter		
- Anji Guoyuan Water Company	Less than 1	No change to the end target.
- Fuyang Water Company	Less than 1	No change to the end target.
- Tiantai Water Company	Less than 1	No change to the end target.
- Longquan Water Company	Less than 1	No change to the end target.
- Longquan Rural Water Supply Station	Less than 1	No change to the end target.
- Longquan Rural Water Affairs Co., Ltd	Less than 1	This is a newly added indicator to measure financial sustainability of water supply of the new PIU, in line with other PIUs.
IO-2.1. Number of staff training days in project	2,800 person-day	End target at project MTR is 1,200 (in the last ISR end target is 570, this is the end target for 2017 in the PAD. It should be



financed training and TA activities		updated to 1,200 along with other indicators after MTR). The increase in the end target is attributed to the additional training activities conducted to enhance the O&M capacity.
IO-2.2. Number of O&M management plans prepared and implemented	6	End target at appraisal is 5 and maintained through to project MTR. Each of five PIUs needs to prepare its own O&M plan. The new PIU also needs to prepare its O&M plan after restructuring is approved. Therefore, end target is revised from 5 to 6.
IO-3.1 Development and implementation of a simplified management information system in the ZPMO for daily project management	Deleted	The original intention of this indicator was to develop a simplified, project-specific MIS. The development of the simplified MIS was achieved by fully utilizing client’s counterpart fund, and the MIS has been used since the time after the project became effective. Subsequently however, Zhejiang Provincial Information Center, to which Zhejiang PMO is affiliated, developed a separate and more comprehensive MIS. Therefore, the simplified project MIS was merged into the Information Center’s comprehensive MIS and is no longer needed as a stand-alone system. The new MIS provides all of the data collection and reporting functionality as the original simplified project MIS and fully satisfies the project indicator tracking and reporting requirements of the Bank. The new MIS is now being effectively used by ZPMO for day-to-day project management.

Note: in the case of no actual data is available, the female beneficiaries are determined as 50% of total at project appraisal based on results of social survey. This percentage will be maintained and applied to the revised results framework.

22. The Results Framework is included in the Operations Manual which has been incorporated by reference in the Loan Agreement and the Project Agreement. Accordingly, an amendment to the Loan Agreement or the Project Agreement is not required, but the Operations Manual will be updated after the project restructuring to reflect the revised results framework.

23. **Components and Cost.** The Project cost has been revised based on the actual costs to date and projections of the remaining investments until the loan is closed. At appraisal, under the framework approach, the project cost was estimated at CNY2.46 billion (US\$400 million at an exchange rate of US\$1 = CNY6.1581). At present, the revised total project cost is CNY1.97 billion (US\$303.57 million) at an exchange rate of US\$1 = CNY6.5.

24. The reduction in the overall project cost is attributed to savings from competitive bidding during implementation as well as adjustment of scope of the subprojects identified during implementation following framework approach. As a result, US\$200 million IBRD loan is being fully utilized while the amount of counterpart fund needed will be reduced from US\$200 million to US\$103.57 million.

25. Annex 2 outlines that there are 6 works contracts under construction in Longquan City and 1 goods contract under procurement in Tiantai County. The project counties confirm that the counterpart funds allocation for these contracts are adequate.

26. **O&M and financial sustainability of the investments.** In the project design, all the project counties need to sign subsidiary loan agreements with PIUs (professional water companies at county level), outlining PIUs’ roles and responsibilities to operate and maintain water supply and sanitation assets invested under the project. The project’s legal covenant also ensures the project counties have the obligation to provide subsidy to fulfill the gap between tariff revenue and O&M cost. The implementation support missions confirmed that the legal covenants are complied with,



the level of O&M are satisfactory, and the project counties have the financial capacity and are committed to continuously provide adequate subsidies to the PIUs beyond the loan is closed.

III. SUMMARY OF CHANGES

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Loan Closing Date(s)	✓	
Disbursement Estimates	✓	
Institutional Arrangements	✓	
Implementation Schedule	✓	
Implementing Agency		✓
DDO Status		✓
Project's Development Objectives		✓
PBCs		✓
Cancellations Proposed		✓
Reallocation between Disbursement Categories		✓
Disbursements Arrangements		✓
Overall Risk Rating		✓
Safeguard Policies Triggered		✓
EA category		✓
Legal Covenants		✓
Financial Management		✓
Procurement		✓
Other Change(s)		✓
Economic and Financial Analysis		✓
Technical Analysis		✓
Social Analysis		✓
Environmental Analysis		✓



IV. DETAILED CHANGE(S)

COMPONENTS

Current Component Name	Current Cost (US\$M)	Action	Proposed Component Name	Proposed Cost (US\$M)
Improving Water Supply and Sanitation	355.88	Revised	Improving Water Supply and Sanitation	301.07
Training and Capacity Building	2.50	Revised	Training and Capacity Building	1.00
Project Management and Supervision	3.50	Revised	Project Management and Supervision	1.50
TOTAL	361.88			303.57

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IBRD-84240	Effective	31-Dec-2020		30-Jun-2021	30-Oct-2021

DISBURSEMENT ESTIMATES

Change in Disbursement Estimates
Yes

Year	Current	Proposed
2015	800,000.00	0.00
2016	11,200,000.00	20,000,000.00
2017	27,000,000.00	21,364,890.19
2018	41,000,000.00	32,941,834.41
2019	40,000,000.00	46,052,492.41
2020	45,000,000.00	43,391,557.92
2021	35,000,000.00	21,249,225.07
2022	0.00	15,000,000.00



The World Bank

Zhejiang Rural Water Supply and Sanitation Project (P133018)



Results framework

COUNTRY: China

Zhejiang Rural Water Supply and Sanitation Project

Project Development Objectives(s)

The proposed Project Development Objective (PDO) is to improve access to sustainable water supply and sanitation services in selected villages and towns in rural areas of Zhejiang Province.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
To improve access to sustainable water supply and sanitation services in selected villages and towns							
Number of people in rural areas provided with access to Improved Water Sources under the project (Number)		0.00	53,375.00	93,304.00	312,078.00	400,000.00	450,000.00
Action: This indicator has been Revised	Rationale: End target at project MTR is 400,000. The increase in the end target is because water treatment plants in Tiantai County and Longquan City served more population than estimated at project MTR.						
Female population (Number)		0.00	27,105.00	47,330.00	156,039.00	200,000.00	225,000.00
Action: This indicator has been Revised							
People provided with access to 'improved sanitation facilities' under the proj. (CRI, Number)		0.00	185,576.00	479,009.00	611,160.00	615,000.00	630,000.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
<p>Rationale: <i>End target at project MTR is 700,000. It is revised to 630,000 through this restructuring. The reduction in the end target is because, at detail design stage, the number of households connected to the sewer systems were adjusted to fit local geographical conditions to make sure the investments are more cost-effective. 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.</i></p>							
People provided with access to "improved sanitation facilities" - rural (Number)		0.00	185,576.00	479,009.00	611,160.00	615,000.00	630,000.00
<p>Rationale: <i>End target at project MTR is 700,000. It is revised to 630,000 through this restructuring. The reduction in the end target is because, at detail design stage, the number of households connected to the sewer systems were adjusted to fit local geographical conditions to make sure the investments are more cost-effective. 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.</i></p>							
Female population (Number)		0.00	93,692.00	236,075.00	305,580.00	307,500.00	315,000.00
<p>Action: This indicator has been Revised</p>							

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improving Water Supply and Sanitation							



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Piped household water connections that are benefiting from rehabilitation works undertaken by the project (Number)		0.00	5,113.00	9,283.00	17,444.00	100,000.00	130,000.00
	<p>Rationale: <i>End targets at project MTR is 45,000. At project appraisal it only includes the piped household water connection newly constructed under the project. Actually, the project also benefits many existing piped water connections whose water source are shifted from unreliable ones to the safe and reliable water sources financed by the Project. Therefore, through this restructuring, this amount of connection is included in this IO indicator, the end target is increased accordingly.</i></p> <p>Action: This indicator has been Revised <i>In the last ISR of March 2020, the Actual (current) number is 174,444. Zhejiang PMO confirmed that this is a typo in its report to the Bank; it should be 17,444.</i></p>						
New household sewer connections constructed under the project (Number)		0.00	13,630.00	47,463.00	60,000.00	75,000.00	85,000.00
	<p>Rationale: <i>End target at project MTR is 95,000. It is revised to 85,000 through this restructuring. The reduction in the end target is because, at detail design stage, the number of households connected to the sewer systems were adjusted to fit local geographical conditions to make sure the investments are more cost-effective. 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.</i></p> <p>Action: This indicator has been Revised <i>In the last ISR of March 2020, the Actual (current) number is 87,794. It should be 60,000. Zhejiang PMO advised that some household connections are miscounted in its report to the Bank.</i></p>						
Volume(mass) of BOD pollution load removed by treatment plant under the project (Tones/year)		0.00	534.00	2,212.00	2,261.90	2,777.00	2,796.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
<p>Action: This indicator has been Revised</p>	<p>Rationale: <i>The end target at MTR is 4,325. The BOD load reduction is calculated as below</i> <i>BOD load reduction = volume of wastewater treated x (inflow BOD concentration – outflow BOD concentration)</i> <i>After MTR in November 2017, it was found that, when BOD load reduction was calculated, the volume of wastewater treated was determined as 100% of installed capacity. This is not correct. The scale of the WWTPs under the project are designed that, at early stage of operation (or at project closing), the volume of wastewater treated only reaches its 70% of installed capacity, enabling WWTPs have the capacity to meet growing demands in the future. Therefore, this calculation error should be corrected through this restructuring.</i> <i>Secondly, the inflow BOD concentration in the WWTPs are found lower than what designer estimated in the technical design. This phenomenon is recently found being very common in East Asia, mainly attributed to local light diet structure, sewer leakage and storm and ground water infiltration, etc.</i> <i>Thirdly, the large number of household septic tanks installed in Longquan City just a few months before project closing will substantially reduce BOD load in the sewer system as most of the fecal substance will be settled in the newly-installed septic tanks, therefore the inflow BOD concentration of WWTPs at this particular stage will be lower than normal level.</i> <i>Taking all these factors into account, through this restructuring, the end targets of BOD load reductions are reduced to 2,796. In the last ISR of March 2020, the end target is 4,049. This is an added-up error; it should be 4,325.</i></p>						
	Fuyang WWTP (Phase 4) (Tones/year)	0.00	534.00	2,000.00	2,000.00	2,500.00	2,500.00
<p>Action: This indicator has been Revised</p>	<p>Rationale: <i>End target at project MTR is 3,984. In the last ISR of March 2020, the Actual (current) number is 2,675. Zhejiang PMO confirmed that this is a calculation error in the report sent to the Bank; the real BOD load reduction for 2019 should be 2,500.</i></p>						
Anren WWTP (Tones/year)	0.00	0.00	0.00	6.90	8.00	15.00	



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Action: This indicator has been Revised							
Badu WWTP (Tones/year)		0.00	0.00	0.00	0.00	5.00	11.00
Action: This indicator has been Revised							
Xiaomei WWTP (Tones/year)		0.00	0.00	0.00	0.00	1.00	4.00
Action: This indicator has been Revised							
Chatian WWTP (Tones/year)		0.00	0.00	0.00	0.00	1.00	4.00
Action: This indicator has been Revised							
Lanju WWTP (Tones/year)		0.00	0.00	0.00	0.00	1.00	4.00
Action: This indicator has been Revised							
Jinxi WWTP (Tones/year)		0.00	0.00	0.00	0.00	1.00	3.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Action: This indicator has been Revised	Rationale: End target at project MTR is 8.						
Meixi WWTP (Tones/year)	0.00	0.00	212.00	255.00	255.00	255.00	
Action: This indicator has been Revised	Rationale: This indicator has no change since MTR (in the ISRs it was rounded up as 250). Apart from receiving domestic wastewater, Meixi WWTP also receives industrial wastewater from nearby industrial parks. Its inflow BOD concentration is higher than the other WWTPs. It is assessed that current end target is reasonable.						
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter (Anji Guoyuan Water Company) (Text)	NA	less than 1	less than 1	less than 1	less than 1	less than 1	
Action: This indicator has been Revised	Rationale: No change to the end target.						
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter (Fuyang Water Company) (Text)	Less than 1	less than 1	less than 1	less than 1	less than 1	Less than 1	
Action: This indicator has been Revised	Rationale: No change to the end target.						



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter (Tiantai Water Company) (Text)		less than 1	less than 1	less than 1	less than 1	less than 1	less than 1
Action: This indicator has been Revised	Rationale: No change to the end target.						
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter (Longquan Water Company) (Text)		less than 1	less than 1	less than 1	less than 1	less than 1	less than 1
Action: This indicator has been Revised	Rationale: No change to the end target.						
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic meter (Longquan Rural Water Supply Station) (Text)		less than 1	less than 1	less than 1	less than 1	less than 1	less than 1
Action: This indicator has been Revised	Rationale: No change to the end target.						
Ratio of production cost of water supply per cubic meter over the tariff charge per cubic		NA	NA	NA	NA	less than 1	less than 1



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
meter (Longquan Rural Water Affairs Co., Ltd) (Text)							
Action: This indicator is New	Rationale: <i>This is a newly added indicator to measure financial sustainability of water supply of the new PIU, in line with other PIUs.</i>						
Training and Capacity Building							
Number of staff training days in project financed training and TA activities (Number)		0.00	1,575.00	2,264.00	2,814.00	2,800.00	2,800.00
Action: This indicator has been Revised	Rationale: <i>End target at project MTR is 1,200 (in the last ISR end target is 570, this is the end target for 2017 in the PAD. It should be updated to 1,200 along with other indicators after MTR). The increase in the end target is attributed to the additional training activities conducted to enhance the O&M capacity.</i>						
Project Management and Supervision							
Number of O&M management plans prepared and implemented (Number)		0.00	5.00	5.00	5.00	6.00	6.00
Action: This indicator has been Revised	Rationale: <i>End target at appraisal is 5 and maintained through to project MTR. Each of five PIUs needs to prepare its own O&M plan. The new PIU also needs to prepare its O&M plan after restructuring is approved. Therefore, end target is revised from 5 to 6.</i>						
Development and implementation of a simplified management information system in the ZPMO for daily project management (Text)		None					Completed



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Action: This indicator has been Marked for Deletion			Rationale: <i>The original intention of this indicator was to develop a simplified, project-specific MIS. The development of the simplified MIS was achieved by fully utilizing client's counterpart fund, and the MIS has been used since the time after the project became effective. Subsequently however, Zhejiang Provincial Information Center, to which Zhejiang PMO is affiliated, developed a separate and more comprehensive MIS. Therefore, the simplified project MIS was merged into the Information Center's comprehensive MIS and is no longer needed as a stand-alone system. The new MIS provides all of the data collection and reporting functionality as the original simplified project MIS and fully satisfies the project indicator tracking and reporting requirements of the Bank. The new MIS is now being effectively used by ZPMO for day-to-day project management.</i>				

**Annex 1: Implementation Plan**

Components	Actions	Responsibility	Timeline
Component 1: Improving water supply and sanitation	Longquan City enter into the same subsidiary loan agreement with LRWAC after this restructuring is approved	Longquan City Government	End June 2020
	Civil work and equipment installation completed for all WTPs and WWTPs.	PIUs	June 2020
	Longquan to complete all on-going sewer network contracts	PIUs	March 2021
	Tiantai to complete smart water platform	PIUs	March 2021
Component 2: Training and capacity building	Technical trainings	ZPMO and PIUs	June 2021
Component 3: Project management and supervision	Project results and impacts monitoring plan implementation	ZPMO and PIUs	June 2021
	Project management consultancy service	ZPMO and PIUs	June 2021
Compliance with the Legal covenant on Financial and Operational Sustainability	Longquan City provides adequate subsidy to cover the different of the O&M cost and tariff revenue of LRWAC for rural water supply and sanitation.	Project Counties	July 2020
Upgrading of the Operations Manual	Zhejiang PMO and PIUs update the operation manual to reflect the revision of the results framework through this restructuring	ZPMO and PIUs	July 2020
ICR Preparation	Data collection and draft client ICR prepared	ZPMO and PIUs	June 2021



Annex 2: Progress of Ongoing Contracts

Contract No.	Contract Title	Contract Description	Contract Value (CNY)	Work started by	Plan for ongoing works	Contracts to be completed by
LQDV9C	Longquan City 9 th batch wastewater treatment	Wastewater household connection in Anren Town	12,930,000	12/18/2018	63% wastewater pipelines completed; 44% septic tanks completed	03/31/2021
LQDV10C	Longquan City 10 th batch wastewater treatment	Wastewater household connection in Badu Town	11,700,000	12/04/2018	87% wastewater pipelines completed; 61% septic tanks completed	03/31/2021
LQXC1C	Longquan City Xiaomei and Chatian County WSS	One WTP and two WWTP civil works; Equipment installation; Wastewater pipelines	47,279,500	11/22/2018	Xiaomei WWTP plan to be commissioned by 07/15/2020; Chatian WWTP plan to be commissioned by 07/15/2020; WTP plan to be commissioned by 06/30/2020	03/31/2021
LQLI1C	Longquan City Lanju Village WSS	Lanju WTP and WWTP civil works; Equipment installation; Wastewater pipelines	34,582,300	03/20/2019	WWTP plan to be commissioned by 06/30/2020; WTP plan to be commissioned by 07/15/2020;	03/31/2021
LQBD2C	Longquan City Badu County WSS	Badu WTP and WWTP civil works; Equipment installation; Wastewater pipelines	20,660,000	10/27/2018	WWTP plan to be commissioned by 07/15/2020; WTP plan to be commissioned by 07/15/2020;	03/31/2021
LQJX1C	Longquan City Jinxi County WSS	Jinxi WWTP; water supply and wastewater pipelines and household connections	21,303,100	03/28/2018	WWTP is in trial operation; 66.5% septic tanks completed	03/31/2021



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TTXJ-6	Smart Water Platform	Equipment supply to establish smart water platform for Tiantai Water Company	14,000,000	03/31/2021	Procurement is being processed.	03/31/2021
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