

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC1006

Project Name	Zhejiang Rural Areas and Small Towns Water and Sanitation Improvement Project (P133018)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Water supply (30%), Wastewater Collection and Transportation (50%), Wastewater Treatment and Disposal (20%)
Theme(s)	City-wide Infrastructure and Service Delivery (65%), Rural services and infrastructure (35%)
Lending Instrument	Investment Project Financing
Project ID	P133018
Borrower(s)	People's Republic of China
Implementing Agency	Zhejiang Provincial Economic Information Center
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	06-Aug-2013
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Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

The economic growth of the past decades allowed the Government of China (GoC) to allocate more resources to support the development of rural areas and small towns throughout the country. At a national level, the 12th Five Year Plan (12th FYP, 2011-2015) promoted the development of infrastructure to address drinking water safety and environmental pollution in rural areas. At the same time, as part of the ongoing urbanization process, migration of rural residents to small towns has also been encouraged by the national government. It is expected that by 2030, 350 million people living in rural areas will move to towns and cities where there are more jobs and where infrastructure services can be provided more efficiently and economically. Strengthening of infrastructure services in small towns and cities, including those provided by water and sanitation

utilities, will be necessary if these towns are to absorb the growing rural migrant population without incurring environmental pollution.

Sectoral and Institutional Context

Rural-Urban and Socio-Economic Development Trends. Zhejiang Province is located in the east coast of China covering an area of 105,391 km² and with a total population of 54.6 million (2012). The Province has experienced rapid economic growth over the past decades as demonstrated by its GDP growth which increased from US\$ 7,347 million in 1978 to US\$ 548,219 million in 2012. The per capita GDP of Zhejiang Province reached US\$ 10,500 in 2012, ranking 6th in China, after Tianjin, Beijing, Shanghai, Jiangsu, and Inner Mongolia.

Zhejiang's urbanization rate has also grown tremendously and it is now one of the most urbanized provinces in China. In 2012, 62.3% of the population lived in urban areas compared to a national average of 52%, up from just 22% in 1978. It is expected that by 2020, the urbanization rate of the province will reach 72% while 5 to 6 million more rural people will move to cities and towns.

In line with this urbanization process, the demographic of the rural population in Zhejiang Province has experienced sharp changes. The population currently living in the villages comprises mostly of elderly, women, and children as most of the working age population, particularly men, have migrated in search of business or job opportunities and return to the village only once or twice a year for family reunions during the holidays. While migration from rural areas to urban areas (including towns) is likely to continue, it is important to continue improving the quality of services in rural areas for reasons of equity.

Water Resource and Water Environment. Water supply in Zhejiang relies heavily on surface water. The Province's annual precipitation is about 1,600mm; however, approximately 50-60% of the annual rainfall occurs during the short rainy season, commonly called the plum rains, and the typhoon season. The water resources available in the Province are adequate; however, water services are not fully satisfactory due to inadequate network coverage and institutional arrangements associated to service delivery.

Water and Sanitation Infrastructure Services in Villages. In recent years, Zhejiang Provincial authorities have regularly invested in water supply infrastructure in rural areas. Consequently, the percentage of villages served by piped water reached 98% in 2012, up from 65% in 2009. However, compliance with the national drinking water quality code has lagged behind and in 2012 only 48.3% of rural water supply was considered safe with regards to quality. This has been mostly the result of (i) poor raw water quality, (ii) absence of adequate treatment facilities, and (iii) poor operation and maintenance (O&M) because water supply facilities in most villages are managed by rural residents with limited technical knowledge and support from the government.

The situation of sanitation services varies from village to village and lags water supply. In the plains and low elevation areas such as Hangzhou, Ningbo and Huzhou, 10% to 35% of rural domestic sewerage is collected and properly treated. In mountain areas, this figure drops to between 1.7% to 5%. While septic tanks have been widely used in villages where sewerage collection and treatment is unavailable, inappropriate construction and maintenance has led many of them to operate without a bottom liner allowing pollutants to leak and subsequently potentially contaminate the soil and groundwater. In addition, several existing village sewerage treatment facilities are functioning with insufficient funding and low operational capacity.

Water and Sanitation Infrastructure Services in Small Towns.

By 2010, 63.3% of residents of Zhejiang's small towns were served by piped water, lower than the national average of 79.6%. Also, there is imbalance in service coverage between the center of municipalities and outlying counties. This imbalance is considered to be caused by the recent rapid development of small towns which has not been accompanied by sufficient investment in the water supply and sanitation sector.

In 2012, the percentage of wastewater treatment in the Zhejiang's municipalities and county capitals amounted to 76%, however in small towns the wastewater treatment ratio is much lower as a result of insufficient investment in sewer networks and wastewater treatment systems in small towns. It is expected that, by 2020, the wastewater collection and treatment rate in small towns of Zhejiang Province will reach 70%.

Institutional Capacity Weakness in the Water and Sanitation Sector. In Zhejiang's rural areas and small towns water and sanitation services are under the responsibility of: (i) state-owned professional water companies, (ii) privately-owned water companies, or (iii) rural residents. In general, there is weak capacity to operate and maintain water and sanitation facilities. At the village level, the O&M of the water supply facilities depends on rural residents' skills and financial contributions. In many villages tariffs, which include operating costs, are as low as US\$ 0.08 (RMB 0.5) per cubic meter. In other instances rural residents are entitled to unlimited use of water in exchange for very low fixed lump sum charges. The lack of cost recovery, policy on targeting of subsidies and satisfactory methods for O&M has made water and sanitation services in small towns and villages unsustainable and thus infrastructure is falling into a cycle of decline; reforms have therefore become necessary.

The prevailing practice is that, the local government normally employs a small team to look after the O&M of water and sanitation facilities. However, funding and technical support provided to these teams are usually insufficient resulting in the unsatisfactory performance of facilities and management of assets. As the water distribution network is not well maintained, leakage in small towns is usually very high, in some areas as high as 20% or more, as for example in some towns in Longquan County where leakage is as high as 35%.

Zhejiang's Response to Improve Water and Sanitation in Rural Areas and Small Towns. The Provincial Government fully recognizes these challenges. In its 12th FYP, a campaign was initiated to improve infrastructure build and management in rural areas, including water and sanitation facilities. A rural drinking improvement program, implemented during 2003 through 2012, has provided rural residents in 20,000 villages with piped water supply.

Rational for Bank Involvement. The World Bank has to date implemented seven projects in Zhejiang Province, three of which, are still under implementation. The focus of the Bank's assistance to the Province has gradually evolved from strengthening urban planning, the delivery of public services, environmental policies and programs, and the protection of the cultural heritage in larger cities, to the expansion of infrastructure and upgrading of basic service provision in rural areas and small towns. Specifically for the sector, the Bank assisted the Province with the successful service upgrading of water supply needs and wastewater management in small and-medium-size cities through the Zhejiang Multi-cities Development Project (P003473) and the Zhejiang Urban Environment Project (P066955). The Province now seeks Bank assistance to develop sustainable

institutional and financing options to extend these services to small towns and rural areas. The experience of the Bank in preparing and implementing projects will be reflected in the project design.

International Experience and Lessons Learned. The Bank has significant experience in assisting rural villages and small towns to develop water and sanitation infrastructure. Many of these are detailed in a recently published policy note which outlines key factors to take into consideration when addressing wastewater management in small towns in China. Some of the lessons learned are:

- (1) the importance of using appropriate technology processes that require low investment, low energy and are simple to operate, in order to succeed in any strategy aimed at increasing the coverage of wastewater treatment in small towns;
- (2) the importance of providing investment subsidies for treatment plants in small towns as poor users will usually be unable to pay the full cost of water treatment; and,
- (3) the usefulness of having government constituted regional units that provide technical assistance to support the operation of water and sanitation facilities in rural areas and small towns.

Furthermore, given that many villages will be involved in the project, Design-Build (DB) contracts will be adopted for the village sanitation component. DB contracts will cover multiple villages, reducing the number contracts and procurement events. The Bank will assist the Province in implementing the DB contracts.

Gender Issues. The project is consistent with the Bank's approach to promote inclusive innovation, or innovation that addresses the needs of the poor, including women, as a tool to help increase productivity and reduce disparities. The population currently living in rural villages is mostly comprised of women who have stayed back to take care of the family due to the migration of the working-age population, particularly men. More detail analysis of the population in this area, its needs and access to water and sanitation services will be conducted during the Social Assessment for this project. In this connection, it is hoped that through the increase of household connections to wastewater services the project will improve sanitation facilities for females and children. In addition, the project will explore ways in which to assist with the organization of women in villages, particularly as they make up most of the population. Finally, women from both rural villages and small towns will be consulted during the social assessment process, in gender disaggregated groups, to ensure their specific needs are taken into account in the design and implementation of the project.

Relationship to CAS

The World Bank Group's Country Partnership Strategy (CPS) for FY13-FY16 focuses on three main areas of engagement to support the GoC's 12th FYP, these include: (i) supporting greener growth, (ii) promoting more inclusive development, and (iii) advancing mutually beneficial relations with the world by supporting China's South-South cooperation and role as a global stakeholder. This project directly supports the second area of engagement by providing support for rural areas and small town development in order to help balance development between urban and rural areas and addressing the needs of vulnerable groups in rural areas. Specifically, under the CPS it is envisioned that the Bank will contribute to boost rural incomes and reduce poverty by increasing access to basic quality services thereby addressing obstacles to rural and economic growth and rural income generation. The provision of water and sanitation services in this project will enhance opportunities to increase incomes and spur overall development in rural areas and small towns.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The Proposed Project Development Objective (PDO) is to improve water and sanitation services in selected counties of Zhejiang Province. This will be achieved through the provision of improved water supply and sanitation systems in the selected counties and county level cities.

Key Results (From PCN)

Progress towards meeting the PDO would be measured through: (i) number of people provided with access to improved water services in rural areas and small towns; (ii) number of people provided with access to improved sanitation services in rural areas and small towns; (iii) a reduction in pollutant load that will be discharged to the water bodies in towns; and, (iv) indicators on institutional sustainability (e.g., operating efficiency rates, and cost recovery rates, etc.). Appropriate gender-disaggregated indicators will also be reviewed during preparation.

III. Preliminary Description

Concept Description

Proposed Project Investment. The total indicative project cost estimate is US\$440 million with an IBRD loan of US\$200 million. The project is comprised of three components, being:

- Component 1: Water and Sanitation Improvement in Rural Villages (US\$ 118 million). The sub-sectors covered under this component are water supply and sanitation facilities in rural villages and it is expected that approximately 300 villages will be covered.
- Component 2: Water and Sanitation Improvement in Small Towns (US\$ 317 million). The sub-sectors covered under this component are also water supply and sanitation; however the focus is expected to be on small towns. Approximately, 30 small towns will be covered under this component.
- Component 3: Implementation Support and Capacity Building (US\$ 5 million). Given the weak capacity in rural and small towns, strong support for implementation will be required. In addition, the project will also aim to improve the performance of targeted water companies through the implementation of management information systems, asset management systems, GIS, etc.

Phased Approach. Subproject proposals will be appraised by the Bank in a phased manner upon fulfillment of the eligibility criteria (mentioned below). The project includes water and sanitation subprojects for approximately 300 villages and 30 small towns. The project will be carried out in two phases.

- Phase 1 activities will comprise investments for which feasibility studies are completed by the preparation stage of the project (expected in July 29, 2013), approximately 89% of the project investment; and
- Phase 2 activities will comprise all other investments for which feasibility studies are completed within 12 months after the effectiveness deadline of the project.

For the identification of projects in Phase II, a Project Operation Manual (POM) will be used. The POM will include:

- Selection Criteria, specifying the eligibility of the villages and small towns to be financed by the Bank loan (more details provided below);
- Institutional Arrangements, required to be in place by appraisal;
- Technical Assessment, including sector theme, location, rational, and other factors which should be included in the proposals;
- Safeguard Assessment, detailing national and Bank safeguard policies to be complied with, including an Environmental and Social Screening and Assessment Framework (ESSAF). The ESSAF will include policies and procedures for the screening of subprojects.
- Cost Effectiveness Analysis, specifying the viability of total and per capita investments;
- Procurement, in compliance with Bank procurement policies and requirements or national policies and procedures acceptable to the Bank. The POM will also contain a streamlined approach for procurement that will be agreed upon with the Provincial Project Management Office (PPMO) and Project Implementation Units (PIUs).
- Financial Management guidelines, in compliance with Bank's fiduciary requirements.
- Disbursement guidelines, stating the eligibility criteria for the disbursement of Bank loan.

The following eligibility criteria for subprojects related to rural sanitation will be used:

- (1) Villagers' approval: the Village Committee and a certain number of villagers (to be determined) approves being part of the project;
- (2) Long-term plan to improve village infrastructure: the selected villages are part of the government plans to improve infrastructure;
- (3) Secured professional O&M entities: a professional entity has to be employed by the local government to look after the operation and maintenance of the proposed sanitary facilities (and the corresponding funding has been secured), including the villages where septic tanks are found to be technical-economic suitable;
- (4) Household wastewater generation, the wastewater in the village is mainly from households and not small private industries;

Procurement. Zhejiang's Provincial Authorities recognize that the implementation of relatively small subprojects in various parts of the Province could prove to be a complex exercise. Hence, DB contracts will be utilized for village sanitation improvement. In addition, activities falling within a particular geographical cluster (both for towns and villages) will be grouped into one procurement contract, thereby limiting the total number of contracts. It is expected that the Bank will finance a total of 24 civil works contracts for this Project.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04			x
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11			x
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		

Safety of Dams OP/BP 4.37			x
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	440.00	Total Bank Financing:	200.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			240.00
International Bank for Reconstruction and Development			200.00
Total			440.00

VI. Contact point

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