

**COMBINED PROJECT INFORMATION DOCUMENTS / INTEGRATED
SAFEGUARDS DATA SHEET (PID/ISDS)
CONCEPT STAGE**

Report No.: PIDISDSC19906

Date Prepared/Updated: 12-Dec-2016

I. BASIC INFORMATION

A. Basic Project Data

Country:	China	Project ID:	P158760
		Parent Project ID (if any):	
Project Name:	China Jiangxi Integrated Rural and Urban Water Supply and Wastewater Management Project (P158760)		
Region:	EAST ASIA AND PACIFIC		
Estimated Appraisal Date:	24-Jul-2017	Estimated Board Date:	01-Aug-2017
Practice Area (Lead):	Water	Lending Instrument:	Investment Project Financing
Borrower(s):	PEOPLE'S REPUBLIC OF CHINA		
Implementing Agency:	PIU of Jiangxi Provincial Water Investment Group Under PMO of Jiangxi Provincial Water Bureau		
Financing (in USD Million)			
Financing Source			Amount
Borrower			250.00
International Bank for Reconstruction and Development			200.00
Financing Gap			0.00
Total Project Cost			450.00
Environmental Category:	B - Partial Assessment		
Concept Review Decision:	Track I - The review did authorize the preparation to continue		
Is this a Repeater project?	No		
Other Decision (as needed):	The Chair authorized the team to proceed with preparations as Track 1, with recommendation of a quality enhancement review.		

B. Introduction and Context

Country Context

With an estimated population of 1.3 billion, China has experienced decades of rapid GDP growth, recently averaging close to 6.9 percent per annum. Since the early 1980s, China has been shifting towards a market-based economy, resulting in rapid economic and social transformations that have lifted more than 800 million people out of poverty. In 2015, China's GDP was estimated at close to US\$11 trillion, making it the second largest economy in the world. China achieved all the Millennium Development Goals (MDGs) by 2015 and made a major contribution to the achievement of the MDGs globally. Owing to the country's remarkable growth and attainment of the MDGs, China is now categorized as an upper middle-income country.

Despite China's significant accomplishments, there is still a need to improve water supply and wastewater management, particularly in rural areas, where an estimated 44 million people are reportedly without improved access. China's rural population accounts for 50 percent of the total population in China, yet only 73 percent have access to a piped water supply. Basic access to improved water supply and wastewater management services varies widely between urban and rural areas. Jiangxi Province exemplifies this growing discrepancy. In the Province's rural areas, where 76 percent of the population resides, only 47 percent of the population has access to a piped water supply and there is very limited wastewater management. The rural-urban service gap is becoming increasingly noticeable as China prepares to meet its nationwide target to extend access to piped water throughout the country by 2020.

Recognizing this growing challenge, the Central Government placed rural development at the core of its 12th and newly approved 13th Five Year Plan (13th FYP 2016-2020). China's administrative structure consists of the following five levels: central, provincial, city, county, and township. While access to piped water supply and wastewater treatment at the central, provincial, municipal and county levels has seen major improvements in recent years, access has significantly lagged in rural areas at the township level. The newly approved FYP aims to bridge the gap between urban and rural service provisions and bring the same standard of living enjoyed by urban residents to rural residents. Accordingly, the Plan promotes the development of infrastructure to address the lack of access to piped water, the safety of drinking water and water pollution in rural areas. Improving the infrastructure and basic services in rural areas is critical for China to achieve comprehensive equitable growth

Sectoral and Institutional Context

Jiangxi, a province located in Southeast China, covers an area of approximately 166,919 km² and has an estimated population of 45 million. The Province has a dispersed rural population that primarily engages in agriculture. The provincial economy ranks 18th among China's 34 provinces, and its GDP per capita is about USD5,657, below the national average of USD7,924. The Province has a disproportionately high poverty rate, with an estimated 3.46 million (8 percent) of the total provincial population living below the poverty line. Almost half of the Province's counties (25 out of 67), which are mostly located in mountainous areas, have been designated as priority areas for national poverty eradication. Most of the existing infrastructure in the Province's rural areas is depleted and public sector provisions, particularly water supply and wastewater management services, are acutely lagging.

Access to Piped Water Supply. In response to the lack of access and lagging services in rural areas, the Provincial Government has been investing in water supply infrastructure in recent years. Despite this effort, only 47 percent of the rural population currently has access to a piped

water supply and the rest of the rural population for the most part rely on well systems and rivulets for their water supply needs. This issue is further compounded by the poor quality of the water, which does not meet safety standards. The poor water quality is attributed primarily to inadequate water treatment facilities and meager technical and budget support from the Government to local/community operators in rural townships. Access and services related to sanitation provisions, such as expansion of sanitation facilities, public toilets, rural sludge collection and treatment are separately financed by government programs and managed under the health department.

Most of the existing water supply plants and associated pipeline networks in rural townships are poorly designed and maintained, resulting in intermittent and unreliable service. Several townships report service coverage of six to eight hours per day. Limited access to piped water has led the vast majority of rural households to rely on polluted groundwater as their sole source of drinking water. The consumption of untreated groundwater is causing health issues among low-income rural households, who report higher than average levels of kidney stones and other water-borne diseases such as diarrhea. Recurring illness and rising health care costs are the main reasons rural households struggle to escape the poverty cycle. Once sick, low-income rural residents are often unable to afford necessary medical care and incur wage losses due to absenteeism from work.

Wastewater Treatment Facilities. Although there is no disaggregated data available, anecdotal information indicates that service provision for rural wastewater management significantly lags behind water service. The Province recently began piloting a handful of small-scale plants for treating extremely polluted water but the plants were poorly designed and are often unable to collect sufficient wastewater for treatment as the designs did not include household sewer connections. For the most part, untreated wastewater is discharged directly into rivers, contaminating groundwater aquifers. The lack of an integrated wastewater management system is promoting the deterioration of water quality and is generating significant health and economic impacts for the Province's rural population.

Institutional Capacity, Operation and Maintenance. The Province has substantial prior experience managing rural water projects. The Provincial Water Investment Group (PWIG), a state-owned company under the Provincial Water Bureau, is responsible for rural water supply investments and operation and maintenance (O&M) in Jiangxi. The PWIG has implemented water supply projects in approximately 40 counties across the Province. The Province, however, has very limited experience in wastewater management, which is under the responsibility of the Urban Construction Bureau. The Environment Bureau has the overall responsibility for monitoring water quality and the authority to enforce pollution control directives. Most of the rural area operators consist of privately owned water companies and locally trained farmers. Overall, the Province has limited capacity to manage, operate and maintain the existing water supply and wastewater facilities due to the following issues:

- (i) **Poorly designed water distribution networks:** Some of the water supply schemes in rural counties and townships are overdesigned. The designs are often based on design guidebooks and master plans and do not consider actual water consumption patterns and projected demand. This often resulted in unbalanced pressures, which combined with the use of substandard pipes, resulted in high-levels of leakages. Non-Revenue Water (NRW) currently run as high as 40 to 50 percent in some counties, causing service providers to incur huge revenue and efficiency losses.

(ii) **Inadequate capacity for asset management, operation and maintenance:** Most of the rural area operators at the township and village levels are locally trained farmers or private operators, with limited technical know-how and inadequate financial support from the government. As a result, most of the assets are inefficiently managed and poorly maintained.

(iii) **Low tariff collection and cost recovery:** The annual water surcharges include a base charge (collected even if the households do not consume piped water) and a volume charge. Government subsidies are very low and some households have to use polluted groundwater because they are unable to afford service charges. Tariff collection for water service is below 80 percent and barely covers the O&M costs for simple treatment. There is no wastewater service fee. Funding shortages have stalled construction of new water supply and wastewater treatment plants (WWTP) in some townships and counties. Some of the completed water and wastewater treatment plants are no longer operational because operators were unable to cover O&M costs. Government funding at the country and township levels for water quality monitoring is also very limited.

In order to address the aforementioned challenges, the Jiangxi Provincial Government requested the World Bank's support to finance the Jiangxi Rural Water Supply and Wastewater Management Project. In line with the national rural development plan, the Provincial Government has set objectives in its 13th FYP to extend access to piped water to approximately 90 percent of the rural population in the Province and to treat 85 percent of the wastewater generated by counties by 2020. The Province has not set specific wastewater targets for townships and villages, but the provincial plan does call for major improvements in wastewater treatment below the county level. The priority will be on treating extremely polluted black water that is discharged directly into rivers. The Province identified the following eight counties based on their urgent infrastructure development needs: Jinxi County, Lichuan County, Linchuan County, Yongxin County, Xiushui County, Dongxiang County, Leping County and Nanfeng County (Annex 3, Table 1. provides basic population and economic data for the Jiangxi Province and the proposed eight counties for Project intervention).

Relationship to CAS/CPS/CPF

The proposed Project responds to the World Bank's twin goals of ending extreme poverty and ensuring shared prosperity in China by supporting infrastructure improvements in rural areas of Jiangxi, one of the poorest provinces in China. Limited access to piped water supply and reliance on untreated groundwater for consumption is one of the major factors contributing to the high poverty levels among the Province's rural population. Recurring illness from water-borne diseases, high out-of-pocket medical expenses, and loss of/reduced income due to absenteeism from work drive rural households into vicious cycles of poverty. This impact is particularly acute for farmers who depend on farming activities for their daily earnings as well as women who often have to stay home to tend to the sick. The proposed investments to increase access to clean water for the Province's low-income rural population will play a major role in reducing water-borne diseases on their livelihoods and will also have considerable long-term benefits such as improved health, boosted productivity due to reduced absenteeism and other socio-economic benefits.

The proposed Project is fully aligned with the World Bank's 2013 to 2016 Country Partnership Strategy (CPS) for China and directly supports strategic thematic area two: promoting more inclusive development. The CPS's inclusive development pillar (2.3) specifically calls for enhancing opportunities in rural areas and small towns by helping local governments design

integrated rural-urban development plans and financing small town infrastructure. Improving access to clean water, wastewater treatment facilities and other infrastructure will help increase the rural population's income through improving productivity and spurring overall growth and rural development. The CPS supports China in implementing its National 13th FYP, which promotes the development of rural infrastructure and the expansion of access to safe drinking water in rural areas.

C. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The Project Development Objective (PDO) is to improve access to water supply and wastewater services in select rural counties of Jiangxi Province.

Key Results (From PCN)

The key/PDO-level results indicators are:

- a. People provided with access to improved water supply under the Project (Number)
- b. People provided with improved wastewater services (Number)
- c. Drinking water samples tested that meet the national standards (Percentage)
- d. Non-revenue water (Percentage)
- e. Service providers that meet thresholds of cost recovery (Percentage)
- f. Service providers with O&M plans developed and operational (Number)
- g. Direct Project beneficiaries (Number) of which female (Percentage)

D. Concept Description

The estimated total Project cost is USD352 million, with USD200 million in financing from an IBRD loan and USD152 million of counterpart funding. Based on an initial assessment, the Project team proposes the following four investment components:

Component 1: Construction and Rehabilitation of Water Supply Infrastructure

This Component focuses on water supply-related infrastructure and includes investments in water sources, pipelines, water supply treatment plants and distribution lines in the selected counties. The Project will employ a piloting and replication approach; engineering solutions will be piloted in eight counties in the first year of the Project, tested and then scaled-up within the selected project targeted counties. Each pilot will include: (a) a well-prepared Feasibility Study Report (FSR) and preliminary designs; (b) a well-prepared O&M plan; (c) the construction of a water plant and pipelines; (d) the operationalization of the water plant; (e) the establishment of monitoring systems for the quantity and quality of water supply; and (f) the preparation of replication guidelines or a manual based on the results of the pilot as well as general master plan specific to each county detailing the most appropriate model to be used in that county.

Component 2: Construction and Rehabilitation of Wastewater Treatment Infrastructures

This Component focuses on wastewater treatment infrastructure, including small-scale WWTPs and sewerage connections in townships and villages of the eight counties. Simple treatment technologies such as Anaerobic/Oxic (A/O) and biogas digesters at the household level will be employed. As with Component 1, the Project will employ a piloting and replication approach. Each pilot will include: (a) a well-prepared FSR and preliminary designs; (b) a well-prepared

O&M plan; (c) the construction of WWTP and pipelines; (d) the operationalization of the WWTP; (e) a monitoring system for quantity and quality of wastewater inflows and effluents; and (f) the preparation of replication guidelines or a manual based on results of the pilot and county specific master plan for the selected model.

Component 3: Improving the Quality of Services for Rural Water Supply and Wastewater Management

This Component will provide technical assistance (TA) to help service providers incorporate service delivery methods for rural areas that promote high-quality service, operational efficiency, as well as the financial sustainability of the Project's investments. The TA will include conducting applicable technical studies on rural water supply and wastewater management. In addition, the TA will strengthen the service providers' internal management and financial capacity to sustainably manage the Project's investments through facilitating O&M plan development, proper tariff setting, private sector finance mobilization and increased community participation.

Component 4: Project Management and Capacity Building

This Component focuses on capacity building elements for enhanced Project management such as (i) consulting services (expert groups established at both the provincial and county levels) to technically support the Project Management Offices (PMOs) and the Project Implementing Units (PIUs) both at provincial and county levels ; (ii) workshops, training and study tours to ensure that Project management and implementation adhere to international best practices; (iii) the establishment of a Project monitoring and evaluation (M&E) system and a Project management information system (MIS); and (iv) office equipment and vehicles for Project supervision and quality control.

II. SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Jiangxi Province, with a total population of 45.66 million (2015), is located in the southeast of China with an area of 166,900km², of which 70% is mountainous areas. Jiangxi consists of 100 counties (county level cities and districts), and 8 of them (Jinxi, Yongxin, Linchuan, Lichuan, Xiushui, Nanfeng, Leping and Dongxiang) are involved in the project. Located in the subtropical monsoon climate zone, the project area features moderate climate, sufficient sunshine and rainfall, distinctive seasons and a long frost-free period. The average annual rainfall is about 1,700mm, about 60% of the rainfall is in April-June.

B. Borrower's Institutional Capacity for Safeguard Policies

Project preparation and implementation have been delegated to Jiangxi Provincial Water Bureau, and the Project Implementing Unit (PIU) has been housed in the Provincial Water Investment Group to be responsible for daily and routine work for project management and implementation. Jiangxi Provincial PMO has experience from previous work on the Bank supported project in the province. A fully resourced and experienced expert group consisting of technical specialists for finance, procurement, rural water supply and sanitation, and safeguard will be established under the PIU to provide technical support to the project, and experienced safeguard consultants will soon be hired to assist with the preparation and implementation of safeguards instruments.

At county level, all eight project counties will have their own Project Leading Groups (GLPs) (three of them already in place, namely, Yongxin, Jinxi and Linchuan) and PMOs respectively. Since the counties have limited experience of managing World Bank-financed projects, the Bank will provide necessary training on safeguard policies during project preparation and implementation.

C. Environmental and Social Safeguards Specialists on the Team

Songling Yao (GSU02)

Xiaodan Huang (GEN2A)

Yiren Feng (GEN2A)

Zongcheng Lin (GSU02)

D. POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>Based on current project proposal and preliminary project screening, this policy is triggered, in particular, in relation to the activities proposed under Component 1 and 2.</p> <p>Investments under Component 1 and 2 include construction and rehabilitation of small scale water supply infrastructure and wastewater treatment infrastructure in the selected town and village of the participating Counties. The current proposal involves 6 urban Water Treatment Plants (WTPs) of 25,000-60,000m³/d, 14 rural WTPs of 1000-4000m³/d and 43 municipal Wastewater Treatment Plants (WwTPs) of 300-1600m³/d for villages. In addition, there are two WwTPs respectively with the capacity of 5000m³/d and 7500m³/d proposed in Lichuan and Linchuan to serve two industrial parks.</p> <p>According to site visits and discussions conducted during project identification and the nature of the project, the proposed project is expected to have a positive impact on the environment through the improvement and optimization of water supply and wastewater collection and treatment services in selected towns and villages in eight counties/district of Jiangxi Province. The positive environmental impacts and benefits will be analyzed and quantified in the project environmental assessment, e.g., population benefited from improved water supply and pollutants treated and reduced from wastewater components.</p>

		<p>Potential negative environmental impacts would mainly be small size construction activities during construction, including dust, noise, soil erosion, shipping and disposal of construction waste, etc. The social impacts will be assessed by a separate Social Assessment (SA) to help maximize project benefits as well as minimize potential adverse impacts on the local communities, and the main context will be integrated into the EIA.</p> <p>Considering the type, location, sensitivity, and scale of the proposed project activities, and the nature and magnitude of their potential environmental impacts caused by the construction and rehabilitation of small scale water supply and wastewater treatment infrastructure in the selected town and village, the anticipated adverse impacts are limited and site specific, and the mitigation measures can be readily designed during project preparation and applied during implementation. The project is therefore proposed as a Category B project.</p> <p>The following environmental safeguards instruments are proposed: An Environmental Impact Assessment (EIA) and a standalone Environmental Management Plan (EMP) will be prepared to cover the whole project. Furthermore, an Environmental and Social Management Framework (ESMF) will be prepared since some project components may not be identified till a later stage of project preparation, or even during project implementation.</p> <p>During the preparation of the proposed instruments, WBGE's EHS Guideline will be an important reference, and due diligence review will be conducted for existing facilities and projects related to the proposed project. In addition, the ESMF and EIA/EMP will consult with and refer to Industry Sector Guidelines for Water and Sanitation.</p> <p>During EA preparation, timely and meaningful public consultation and information disclosure will be carried out in accordance with national requirements and Bank policies.</p>
Natural Habitats OP/BP 4.04	TBD	Based on the information provided, there are no

		significant natural habitats located in the proposed project areas. However, whether this policy is triggered or not will depend on final determination of project sites and detailed survey to be conducted during project preparation.
Forests OP/BP 4.36	No	Current information shows the proposed project are not located in forest areas. Therefore, this policy is not triggered.
Pest Management OP 4.09	No	The proposed project will neither procure pesticides nor result in the increased use of pesticides. This policy will not be triggered.
Physical Cultural Resources OP/BP 4.11	TBD	During the identification, it is found that some villages in the selected project counties are featured by ancient dwellings of Qing Dynasty and there exist hundred-year-old ancient trees. This policy could be triggered if the proposed water supply/sewage network components in rural areas involve any recognized ancient villages of Jiangxi Province or have adverse impacts on ancient trees in the region. Detailed survey will be conducted during project preparation.
Indigenous Peoples OP/BP 4.10	TBD	<p>The ID mission did an IP screening in the project counties and found that there are some She ethnic minority groups in two of them. Yet the project decided to do merely pilots in each of the counties in the first year of project implementation, and there are no the She communities in the pilot areas.</p> <p>A social assessment (SA) will be conducted during project preparation including help for further investigating any possibilities of presence of ethnic minority communities in the whole project areas when project unfolds in later years, and the SA will guide an IPPF preparation when there is the possibility.</p> <p>(Since the full project areas in each of the counties have not been selected at the PCN stage, the presence of the ethnic minority groups in the project areas and influence has to be determined after completion of the project FSR).</p>
Involuntary Resettlement OP/ BP 4.12	Yes	As a major project component, construction or/and rehabilitation of water supply plants and wastewater treatment facilities under the project will cause land acquisition and resettlement. OP4.12 is hence triggered under the project. A RAP will be prepared for project pilots (implementation in the first year

		in each county, and a RPF will also prepared during project preparation to guide project implementation in later years in all project areas where resettlement would take place.
Safety of Dams OP/BP 4.37	Yes	The field visits show that some of the water supply subprojects proposed under Component 1 will depend on existing reservoirs/the reservoirs under construction, therefore, the policy of Safety of Dams (OP 4.37) will be triggered, which requires the Borrower to arrange for one or more independent dam specialists to conduct dam safety assessment and to evaluate the implementation of necessary dam safety measures and remedial works.
Projects on International Waterways OP/BP 7.50	No	Not applicable
Projects in Disputed Areas OP/BP 7.60	No	Not applicable

E. Safeguard Preparation Plan

1. Tentative target date for preparing the PAD Stage ISDS

30-May-2017

2. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS.

The first draft of required EA documents is expected by the end of 2016.

RAP to be prepared after FSR in each of the project counties, and be completed and consolidated in December 2016 for the Bank preparation mission. IPP/IPPF to be prepared after the FSR in the project counties where ethnic minority communities are (or will be) present in the project areas, and be completed in December 2016 for review of the Bank preparation mission.

III. Contact point

World Bank

Contact: Liping Jiang

Title: Sr Irrigation Engineer

Borrower/Client/Recipient

Name: PEOPLE'S REPUBLIC OF CHINA

Contact: Jiandi Ye

Title: Director, International Department, MOF

Email: yeduanluo@sina.com

Implementing Agencies

Name: PIU of Jiangxi Provincial Water Investment Group Under PMO of Jiangxi Provincial Water Bureau

Contact: Zhicheng Wan

Title: Director of PIU for the Project

Email: wxklaowan@163.com

IV. For more information contact:

The World Bank
 1818 H Street, NW
 Washington, D.C. 20433
 Telephone: (202) 473-1000
 Web: <http://www.worldbank.org/projects>

V. Approval

Task Team Leader(s):	Name: Liping Jiang	
<i>Approved By</i>		
Safeguards Advisor:	Name: Josefo Tuyor (SA)	Date: 13-Dec-2016
Practice Manager/ Manager:	Name: Sudipto Sarkar (PMGR)	Date: 13-Dec-2016
Country Director:	Name: Elena E. Glinskaya (CD)	Date: 26-Dec-2016

1 Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.