INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE

Report No.: ISDSA18622

Date ISDS Prepared/Updated: 11-Nov-2016

Date ISDS Approved/Disclosed: 13-Nov-2016

I. BASIC INFORMATION

1. Basic Project Data

Country:	China	**Project ID:**	P153604
Project Name:	Poyang Lake Basin Town Water Environment Management Project (P153604)		
Task Team Leader(s):	Ximing Zhang,Solvita Klapare		
Estimated Appraisal Date:	21-Nov-2016	**Estimated Board Date:**	17-Mar-2017
Managing Unit:	GWA02	**Lending Instrument:**	Investment Project Financing
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?	No		

Financing (In USD Million)			
Total Project Cost:	219.93	Total Bank Financing:	150.00
Financing Gap:	0.00		

Financing Source	**Amount**
Borrower	69.93
International Bank for Reconstruction and Development	150.00
Total	219.93

Environmental Category:	A - Full Assessment
Is this a Repeater project?	No

2. Project Development Objective(s)

The Project development objectives are to reduce the pollutant discharge into selected waterways, and improve management of water quality in selected counties in the Poyang Lake basin within Jiangxi Province.

3. Project Description

a. Overview.

The Jiangxi Provincial Government proposes to utilize the World Bank loan in managing the water

environment in the key towns of Poyang Lake basin. Seven counties - Duchang, Poyang, Yugan, Jishui, Fengxin, Jingan and Shangli, have been selected for project implementation. These seven counties represent a mixed pattern of geographic distribution across the basin: three sites are in close proximity to the main lake, one site along the mid-stream of a main river draining into the lake, two sites adjacent to the tributary streams of a main river, and one site at the remotest distance from the lake. The water quality of Poyang Lake is closely associated with the quality and environment of the water and land bodies in these contributing catchments, and vice versa.

The project is designed to integrate different ways of environmental protection to improve the water quality of Poyang Lake basin, including by means of wastewater treatment and solid waste management, as well non-structural measures. As such, the project will focus not only on engineering aspects but also on enhancing institutional mechanisms, improving operation and maintenance (O&M) and monitoring systems to help the selected counties in Jiangxi Province to enhance water environmental services, including wastewater collection and treatment systems, urban storm water management, river and lake environment restoration, solid waste collection and transportation system, and participatory integrated environment management system.

b. Proposed Project components.

The proposed project activities consist of four main components, including:

Component 1:Institutional Strengthening for Water Management (US$23.33 million): The key activities include:
(a) establishment of the Lake Management Platform (LMP) designed to strengthen the Poyang Lake basin►(s management, institutional and knowledge sharing architecture. The LMP is intended to provide an efficient institutional framework that ensures sound coordination with affiliated agencies involved in managing the Lake►(s water environment ;
(b) establishment of water environment monitoring systems, through installation of monitoring stations, provision of monitoring equipment and facilities as well as establishment of integrated information monitoring system and early warning system; the water environment monitoring systems will provide information for government decision making for integrated water environment management and public awareness on environmental protection;
(c) preparation of studies related to ecological protection of the Poyang Lake. This will include financing mechanisms to improve water management. Incentive mechanisms designed to reduce non-point source pollution from agricultural and aquacultural practices will also be considered;
(d) provision of training to personnel of organizations responsible for water quality monitoring and environmental enforcement;
(e) preparation of sensitivity assessment of Poyang Lake. This would strengthen basin-wide water environment management planning through evaluation of water quality improvement and protection, water quantity management, land uses changes, biodiversity conservation, urbanization and demographic changes, tourism impact and industrialization, basin pollution, with climate resilience and adaptation measures; and
(f) enhancement of participatory sustainable lake basin management. This would include: disclosing information about Poyang Lake protection to the public and grassroots level organizations; and ensuring soundness of infrastructure design and operational sustainability through environmental awareness and social activities at the county and village levels.
Component 2: Lake and River Restoration and Improvement of Wastewater Management (US $140.67million): This component would restore river and lake environment for Yugan, Poyang and

Duchang Counties, and improve domestic wastewater system in Duchang, Jing►(an, Fengxin and Jishui Counties. The main activities include:

(a) restoration of lake and river environment in Zhuhu Lake, Pipa Lake, and Zoujiazui lakes & stream ►(located respectively ►(in Poyang, Yugan, and Duchang Counties. The restoration measures include:: (i) construction of bio-retention swales to intercept runoff pollutants from being discharged directly into the lakes; (ii) removal of a small amount of lake sediment to reduce the inner lake pollution source; (iii) development of constructed wetlands designed to remove pollutants from storm water to be discharged into the lakes; (iv) rehabilitation of water diversion structures including four sluice gates and one pump station; and (v) ►(non-structural►(measures, including introduction and coordination of best farmland practice/regulations, and sound aqua-cultured practices; and

(b) enhancement of wastewater management through: (i) construction of wastewater interceptors/ collections and storm water pipelines, as well as associated roads rehabilitation in order to improve the wastewater collection systems in towns of Fengxin, Duchang, Jing►(an, and Jishui Counties; The Project will not set up new wastewater/solid waste treatment plants; (ii) construction of rural wastewater collection systems and small wastewater treatment facilities such as wetlands and wastewater treatment tanks in villages around lakes; (iii) establishment of household connections in Poyang county.

The wastewater collection system will connect to county wastewater treatment plants (WWTP), which have sufficient treatment capacity and satisfactory operations. One of the purposes of this component is to demonstrate an integrated watershed management approach by focusing on key areas for protection, improving water quality and environmental protection, and establishing ecological pollution-control zones.

Component 3: Component 3: Improvements in Solid Waste Management (US$27.70 million): This component would improve solid waste collection and transportation systems in rural and urban areas of Duchang, Yugan, Jing►(an and Shangli Counties, to reduce solid waste disposal to lake/river systems of Poyang Lake basin. The collected solid waste will be treated and disposed to local landfills ►(in Yugan and Jing►(an Counties. The main activities include:

(a) provision of solid waste bins and construction of solid waste collection stations (a total number of about 24,000);

(b) provision of solid waste collection vehicles (a total number of about 220);

(c) construction of nine solid waste transfer stations; and

(d) installation of local solid waste management information systems in Shangli, Duchang, and Jing►(an Counties to ensure a proper management of solid waste collection and transfer systems created under the project, and to integrate the existing urban solid waste management system with the newly established. The solid waste collection and transportation system will connect to existing solid waste treatment plants in the three counties. The management information system will also be linked to the local county urban management information systems, which are currently being set up;

(e) investments at the village level for the improvement of solid waste collection would be implemented through public participatory method, using participatory manual.

Component 4: Project implementation support (US$5.56 million): Supporting the overall capacity of the Project Implementing Entity to coordinate, manage and supervise the implementation of the Project, including: (a) provision of consulting services to enhance engineering design, construction supervision, and environmental and social management; (b) carrying out of capacity building activities through workshops, training and study tours; (c) carrying out offinancial management, procurement, contract supervision and monitoring and evaluation including procurement of external social, resettlement and environmental monitoring services; and (d) the operation of Project management offices (including the purchase of office equipment).

c. Gender.

There is strong evidence that gender inequalities contribute to poverty and reduce human well-being, and that gender issues are an important dimension of the fight against poverty
Worldwide good performance on gender mainstreaming in projects requires: (a) carrying out a gender analysis as part of the project's social assessment; (b) introducing relevant design elements; and (c) tracking project performance through the inclusion of gender disaggregated indicators. The project has conducted a standalone social assessment, in which a close attention to gender aspects has been paid. This included investigating on and consulting with female beneficiaries in the project areas in order to clearly identify their needs and concerns, as well as possible project impacts, and explore both mitigation measures of such impacts and opportunities for women targeted activities to achieve project objectives. The project design foresees female participation in project activities, capacity building and M&E activities. Specific indicator(s) related to women's participation is included in the Results Framework and will be closely monitored during project implementation.

The Social Assessment carried out during project preparation revealed that higher share of women compared to men are involved in farming, forestry, stockbreeding or fishery activities. Hence, the incentive mechanisms established for enhancing environmentally-friendly farming and fishing practices will directly benefit women. The survey carried out as part of the SA indicates that a lesser share of female respondents in the project area carry out responsibility for wastewater disposal, compared to men. However, this amounts to over a third of women being directly exposed to the health risks related to wastewater. Improving wastewater collection and disposal practices thus will benefit health of the women, children and elderly that women are typically taking care of. The survey also revealed that women are predominantly more in charge of solid waste disposal, hence the municipal solid waste collection improvements will directly benefit women population. Also, activities that will introduce new mechanisms in solid waste collection propose to specifically target women. The social gender action plan has been developed as part of the SA, through extensive process of consultation, also proposes a list of activities that are expected to increase environmental and health impact awareness and offer additional income earning opportunities.

d. Lessons learned from Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Project

The project faces risks in terms of institutional capacity and inter-agency coordination, issue that is also observed in other provinces in China. Collaboration in controlling and reducing pollution at their source is the most effective way of environmental management. This requires clarity of responsibilities of each authority, as well as full collaboration to meet the joint objective of having a cleaner environment. Equally important is to considerably strengthen institutional coordination mechanisms, not just for project purposes, but also for the sustainability of project results.
Similarly, frequent changes in investment decisions slows down project implementation. It is critical that county governments maintain ownership of the proposed sub-projects, even with the change of the county leadership to ensure continued focus on agreed project activities and development objectives. To address these institutional risks, a participatory approach is being taken for environmental management under the Project. In addition, county governments have provided official commitment letters to the provincial government upon the request of PDOF and PDRC, stating that the county governments will implement project activities in accordance with the project activity plan designed and agreed during project preparation.

e. Global Lessons Learned and World Bank's Value Added

Lessons learned from World Bank-financed pollution control and ecological restoration projects as well as lessons from other countries➢(experience s have been used to inform the preparation and key concept of the project, particularly in relation to:

- Establishment of the Lake Management Platform as a basis for institutional cooperation and information sharing ➢(the World Bank financed Iran Northern Cities Water Supply and Sanitation Project (INCWSSP) that aimed to reduce pollutant loads to the Caspian Sea highlights the importance of closely coordinating activit ies among various sectoral stakeholders so that the benefits are realized in a timely manner. The forms, functions and responsibilities of the LMPs in various regions/countries differ. For example, the Chesapeake Bay Restoration Program in the USA is a regional partnership that brings together all levels of stakeholders, including leaders and experts from a vast range of agencies and organizations, including federal and state agencies, local governments, non-profit organizations and academic institutions. Partners work together through the Bay Program➢(s goal teams, workgroups and committees that ensure effective collaboration and information sharing.
- Comprehensive lake-wide vulnerability assessment ➢(need for a lake-wide perspective in tackling environmental degradation has proven to be a vital element for the success of the Lake Victoria Environmental Management Program. Such comprehensive lake management plans have also been prepared as part of other established lake basin restoration programs (e.g., Opportunities for Action: An Evolving Plan for the Lake Champlain Basin (USA/Canada), Comprehensive Management Plan for the Pontchartrain Basin (USA)).
- Participatory approach as an essential element has been proven (a) in nearly all water quality improvement programs. For example, the Lake Victoria Environmental Protection Project proved that involvement of communities in watershed management is a prerequisite to successful control of non-point sources of pollution. The Lake Champlain Basin Program works in close partnership between government agencies from New York, Vermont, and QuÃ©bec, private organizations, local communities and individuals to coordinate and fund lake restoration efforts. The Lake Action Plan is available as an online management plan. This allows the agencies and the public to learn about the plans and activities intended to clean the lake.
- Financial incentives for lake water protection ➢(the recently piloted 'River Head' scheme in the Poyang Lake basin serves as an important incentive (for details see Annex 3) in taking individual responsibility for the water environment. The Project proposes to carry out additional detailed research on other forms of incentives. International experience will be taken into account, for example: (i) compensation schemes for fishery management in Biwa Lake (Japan), which allows fishermen to acquire specialized fishing boats and gear reducing over-fishing; (ii) imposition of annual fee to be paid by aluminum smelter and hydropower producer of Lake Toba (Indonesia); (iii) polluter-pays principle for pollution control in Seine Normandy River Basin (France).

The project is expected to contribute to both China➢(s national strategy on water security and ecological civilization agenda. Water security has become a high priority for Chinese decision makers at all levels. The strategy focuses on applying systematic treatment and combination of structural and non-structural measures in water sector to promote ecological safety, economic security and the safety of human health and lives. The project would contribute to, through integrated and participatory approaches, sustainable water and environment management, improvement of ecological conditions, promotion of social and economic environment of Poyang Lake basin, as one of the key areas of Chinese water system.

Apart from the critical investment activities to address lake water quality, the value added of the Bank for this project lies primarily on the institutional capacity building component. This includes an institutional framework that ensures sound coordination with all affiliated agencies that help manage the lake➢(s water environment through the proposed lake management platform (LMP).

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

The project includes seven counties with total population of about 4.2 million - Duchang, Poyang, Yugan, Jishui, Fengxin, Jingan, and Shangli. These seven counties represent a mixed pattern of geographic distribution across the Poyang Lake basin: three counties (i.e., Duchang, Poyang, Yugan) are in close proximity to the main Lake, one (i.e., Jishui) along the mid-stream of a main river draining into the Lake, two (i.e., Fengxin, Jingan) adjacent to the tributary streams of a main river, one (i.e.,Shangli) at the remotest distance from the Lake. The water quality of Poyang Lake is closely associated with the quality and environment of the water and land bodies in these contributing catchments, and vice versa. Poyang Lake is in the north of Jiangxi Province, covering an area of catchment of 162,000 km2. The Lake is renowned as the largest fresh water lake in China and the wetland of national and international significance. 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 1,700 mm, about 60% of the rainfall is in April-June.

5. Environmental and Social Safeguards Specialists

Feng Ji (GEN2A)

Songling Yao (GSU02)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project is proposed as a Category A project mainly because some project activities are in the vicinity of Poyang National Wetland Park and the project will support the clean-up of two polluted lakes. It triggers OP4.01Environmental Assessment. The project is expected to bring overall environmental benefits, leading to the reduction of pollution loads discharged into Poyang Lake and contributing to the improvement of public health and living environment in the selected seven counties. The project itself is a set of mitigation measures to address the existing environmental problems in Poyang Lake Basin area. But the project would also bring some adverse impacts: (a) general construction impacts, (b) dredging in lake/pond (i.e., Pipa in Yugan County, and Zhoujiazui in Duchang County), and the disposal of dredged sediments; and (c) adverse impacts (e.g., odor, waste, increased traffic volume) associated with the operation of solid waste collection and transfer facilities and sewage treatment facilities (see Section II.A (1) for details). As such, OP4.01 is triggered.
Natural Habitats OP/BP	Yes	Poyang Lake is an important natural habitat for migratory

4.04		birds. It is not expected that the project would have the potential to cause significant conversion or degradation of natural habitats. Given that the project would reduce pollution loads discharged into Poyang Lake, the largest freshwater lake in China and benefit this natural habitat, Natural Habitats OP4.04 is triggered (see Section II.A (1) for details).
Forests OP/BP 4.36	No	The project will not have impacts on the health and quality of forests, nor affect the rights and welfare of people and their level of dependence upon or interaction with forests, nor aim to bring about changes in the management, protection, or utilization of natural forest or plantations.
Pest Management OP 4.09	Yes	The project will not include any procurement of pesticides or pesticide application equipment,; nor lead to substantially increased pesticide use and subsequent environmental and health risks. But the project will support training and studies for non-point sources pollution management for agriculture activities, which may lead to the reduction of pesticides discharged into Poyang Lake. As such, this policy is triggered.
Physical Cultural Resources OP/BP 4.11	No	The field survey and the EA confirm that the project will not affect any PCRs. This policy is not triggered.
Indigenous Peoples OP/ BP 4.10	No	Screening on ethnic minority was conducted by the TT in the pre-identification mission and identification mission. The screening, including consultation with the seven project counties and the Provincial Minority Department, concluded that there is no minority village/community in or collectively attached to project areas. Other ongoing World Bank financed projects in the same area in the province verified that no minority is found around the Poyang Lake. The conducted social assessment also verified the above findings. As such, the project will not trigger the OP 4.10, Indigenous People.
Involuntary Resettlement OP/BP 4.12	Yes	The project will permanently and temporarily acquire some land for construction of infrastructure and facilities related to storm water disposal, wastewater collection and treatment, and solid waste collection and treatment, ecological restoration of some small lakes and river sections, etc. OP 4.12, therefore, is triggered. A Resettlement Plan (RP) has been prepared for all the activities, including ancillary facilities to be identified in each county, which have been integrated into a comprehensive RP. A full social assessment, especially on social waste and wastewater collection, has been conducted around the

		project areas to: (a) investigate social economic baselines of the project areas; (b) understand participation willingness of targeted beneficiaries; (c) investigate gender issues and identify appropriate actions to address such issues; and (d) identify most appropriate implementation arrangements and specific mechanism where needed for proposed project activities. Results of the SA have been fully incorporated into project design, as well as EMPs, ESMF and RPs.
Safety of Dams OP/BP 4.37	No	The project will not finance construction or rehabilitation of any dams as defined under this policy, and there are no dams➢(impact on the safety and operation of the project financed facilities.
Projects on International Waterways OP/BP 7.50	No	There are no international waterways in the project area.
Projects in Disputed Areas OP/BP 7.60	No	The project area is not in disputed area.

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Environmental Assessment:
Environmental Assessment (EA) was conducted for the project in accordance with applicable Chinese EA regulations and the World Bank Safeguards Policies. The project itself is a set of mitigation measures to address the existing environmental problems in Poyang Lake basin area, and will bring about overall environmental and social benefits, such as: (a) reducing pollution loads discharging into Poyang Lake, e.g., annual reduction of 2,709 tons of COD, 561 tons of Total Nitrogen and 44 tons of Total Phosphorus; and (b) contributing to the improvement of living environmental in the selected counties with a population of 1.28 million people. The project would also bring some adverse impacts, including: (a) general construction nuisance (e.g. dust, noise, wastewater); (b) impacts on the Poyang National Wetland Park due to activities in Poyang County, i.e., construction of bio-retention swales and constructed wetlands to treat non-point source (NPS) pollution, and the installation of small scale wastewater treatment facilities at rural villages; (c) sediments dredging impacts (e.g., short disturbance to water quality) at Zoujiazui Lake in Duchang County, and the outlet channel of Pipa Lake in Yugan County, and the disposal of sediment (approximately total 13,000m3); and (d) adverse impacts (e.g., odor, dust, waste, noise) associated with domestic solid waste collection and transfer stations, sewage pipelines and small scale sewage treatment facilities during operation. With respect to the cumulative impacts, the EA indicates that the project contributes to the alleviation of the pollutants discharged into Poyang Lake and the improvement of water quality in the selected area. At PCN stage, given details of some project activities were not known, this project was proposed as Category A project by taking a precautionary approach. At PAD stage, the physical investment of the project are well defined which mainly includes construction of sewage/storm water collection system in the urban area of the selected counties; small scale sewage collection and treatment facilities at villages; nonpoint source pollution management; and solid waste collection and transfer facilities etc.. Adverse

impacts of these investments are well known which are mainly associated with construction. These adverse impacts are site-specific; short, and limited, few if any of them are irreversible, and can be readily mitigated with the measures proposed in the ESMP. The EA shows that the project is not likely to have significant adverse environmental impacts, nor contribute negatively to cumulative impacts on VECs.

Natural Habitats:
The project will finance small-scale wastewater treatment facilities (with total treatment capacity of 2,600m3/day) at the existing 35 villages located in the vicinity of Poyang National Wetland Park. To reduce the NPS pollution, the project will build approximately 90 km bio-retention swales and constructed wetland around Zhuhu Lake, which is part of Poyang National Wetland Park and serves as the drinking water source for local population. In addition, the project will support the rehabilitation of Zoujiazui Lake and Pipa Lake, which have been heavily affected by human activities. It is not expected that these activities would have the potential to cause significant conversion or degradation of natural habitats. Instead, these activities would reduce pollution loads discharged into Poyang Lake, the largest freshwater lake in China and benefit this important natural habitat. As such, Natural Habitats OP4.04 is triggered.

Pest Management (OP4.09):
The project will not include any procurement of pesticides or pesticide application equipment; nor lead to increased pesticide use. The project will support training and studies for non-point sources pollution management for agriculture activities, which may lead to the reduction of pesticides discharged into Poyang Lake. As such, this policy is triggered.

Social aspects:
The project will permanently and temporarily acquire some land for construction of infrastructure and facilities, the OP 4.12, therefore, is triggered. Based on resettlement planning in each county, a comprehensive resettlement plan (RP) was prepared.
Consultations with the seven project counties and the Provincial Minority Department concluded that there are no minority villages/communities in or collectively attached to project areas. Other World Bank financed projects in Jiangxi Province verified that there is no minority found around the Poyang Lake. Therefore the project will not trigger the OP 4.10, Indigenous People.
The project will result in land acquisition, other than resettlement, at 140 villages in 19 townships, with 194 mu permanent collective land acquisition and 428 mu state-owned land acquisition, as well as 1,121 mu land leasing for project construction. About 117 households with 443 persons will be affected by land acquisition, and 7,852 persons will be temporarily disturbed in construction period. Because most of land to be acquired is unused land and the project activities are in small scale and could be flexibly located, the impact of land acquisition is minor, with a ratio of land acquisition of less than five percent in each affected village.. Further, eight activities are found related to the project to extent, of which two ones were defined as linked projects and the other six ones were conducted due diligence review on social side. The two linked activities were identified, of which resettlement impacts were fully investigated, evaluated, provided with measures, and integrated in the RP. The impacts are to acquire 20 mu collectively owned land, and to closure 338 mu fishpond, with livelihood influence on 24 households with 90 persons.

338 mu fishpond will be closed in the project implementation stage, about in 2018 according to the current plan. The closure is after end of a commercial contact on the fishpond utilization. Therefore there is no livelihood impact related to the closure.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The Project will bring about overall environmental and social benefits, and contribute to the improvement of living environmental in the selected counties and benefit local people. It is likely that future projects would replicate the project activities, which would lead to continuous reduction of pollutant discharge into the Poyang Lake, and improve the livelihood of around 40 million people linked to Poyang Lake.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Alternative Analysis was carried out for the investment components during the feasibility study and the EA to minimize environmental impacts. The EA and the feasibility study analyzed alternatives for wastewater collection and treatment options, solid waste collection and transfer options, sediment dredging options, and ►(without project►(situation, etc.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

Based on the EA, a stand-alone ESMP has been developed for each of the seven project counties to avoid, minimize, and mitigate the potential adverse impacts. The ESMPs specify mitigation and enhance measures for the project activities, including:

(a) Environmental Code of Practices (ECOPs) for civil work contactors to be included into the bidding documents and civil work contracts;

(b) Specific mitigation measures to protect the Poyang National Wetland Park, such as good management of construction activities (e.g., noise reduction, proper light ensuring health and safety of workers) to minimize potential impacts on birds and the Park; and only indigenous plants allowed to be used for the lakeshore restoration to prevent spread of invasive species;

(c) Sediment dredging and disposal of dredged sediments in an environmentally sound manner, such as the selection of dredging methods and dredging timing, and the good management of sediments stockpile sites and dewatering effluent etc. Laboratory analysis of sediment samples have been taken confirming that dredged sediments are not toxic and can be applied as greening soil in wasteland or woodland. As such, sediments will be removed from the lakes, and, after dewatering, sent to the designated sites (wasteland or woodland) for disposal;

(d) Measures to mitigate impacts associated with domestic solid waste collection and transfer stations and sewage pipelines, for example: (i) minimum buffer distance will be used between waste transfer stations and the nearby villages; (ii) minimum buffer distance will be used between villages►(effluent outlets and the drinking water sources in Poyang County; (iii) waste transfer station will be equipped with deodorization equipment etc.; (iv) mitigation measures for abnormal scenarios are proposed, such as leakage of sewers; and (v) measures for worker health and safety are included in the ESMP. Wastewater and domestic solid waste to be collected at the counties would be safely disposed in WWTPs or SWTPs. Due diligence (as part of the EA) was conducted confirming that these facilities are in compliance with relevant Chinese regulations; and

(e) Mitigation measures for social impacts identified in the social assessment.

Social Aspects

The Resettlement Plan (RP) was prepared based on information disclosure policy, participation of the affected villagers, in line with the World Bank OP 4.12, Involuntary Resettlement, and domestic laws and regulations. It provides details on resettlement implementation procedures and requirements to be followed during project implementation, including compensation rates, mitigation measures to restore livelihoods, institutional and monitoring arrangements, grievance

redress mechanism, etc. Internal and external resettlement monitoring arrangements were developed and included in the RP. These cover the monitoring indicators, frequency, agency qualification and their roles. The tabulated resettlement budget was determined in the document and was committed to be fully financed by the PMO.

Only minor land acquisition is to happen with limited livelihood impacts, therefore the restoration measures will rely on cash compensation plus social security program and training, which was in detail designed in the RP. The land compensation rates are based on the latest standards of provincial governments; and a training plan was prepared with budget. For those who do not lose land but will be affected in the construction period, the project will take measures to better organize construction scheme or to use better construction technic skill to avoid or minimize disturbance.

A full social assessment, especially on social waste and wastewater collection, has been conducted around the project areas to: (a) investigate social economic baselines of the project areas; (b) understand participation willingness of targeted beneficiaries; (c) investigate gender issues and identify appropriate actions to address such issues; and (d) identify most appropriate implementation arrangements and specific mechanism where needed for proposed project activities. The results of the SA have been and will further be incorporated into project design, such as: i) the SA recommended that the project should reduce fee related to wastewater, solid waste for poverty households, provide more training opportunities; ii) the SA assisted determination on site section of solid waste in Shangli County, and increased sewer connection in communities in Yugan County, and changed location of wastewater discharge in Poyang County, and reduced land acquisition in Duchang County

The SA and RP were prepared by the Jiangxi PMO, reviewed by the Bank, and were found compliant with the Bank requirements. The documents were locally disclosed and will be disclosed by the WB. The PMO will commit to further incorporate the SA findings in the project detailed design and monitor the social impacts.

The SA and the RP were developed through extensive consultations and participation process. The stakeholders➢(concerns and needs were discussed with the Bank task team, the PMO and the design institutes, and were incorporated in the project FS and will be integrated in the project design. The recommendations from the consultations were or will be reflected in the project design; the detailed participation information was described in the SA.

A grievance redress mechanism was designed as part of the RP, including a process and a grievance record table, in which grievances can be filed both orally and in writing. The process starts from village and neighborhood committee level, and can be elevated to county/district, city level if complainants are not satisfied with the resolution at the lower level. Complainants also can file their cases in court if not satisfied with the resolution by the project authority. All grievances and their resolution will be recorded. This mechanism has been disclosed to the local population.

Project preparation and implementation have been delegated to the Project Management Office, which is housed in the Foreign Investment Management Office of Jiangxi Provincial Development and Reform Commission. This Office has been managing several World Bank- and ADB-financed projects in the past 20 years, and accumulated rich experiences in project management. This Office is also the provincial PMO of ongoing Bank financed Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Project. It is fully resourced and staffed (project

coordinator, full-time translator and technical specialists for finance, procurement and water resources and safeguards). At the county level, all seven project counties have established the Project Leading Groups (PLGs) and PMOs. The PLGs are headed by county Mayor or standing vice Mayor, and formed by various government line agencies. PMOs are established in county Development and Reform Commission, Foreign Investment Management Office, or Poyang Lake Basin Management Office. The Bank provided training to county PMOs on safeguards policies. Experienced safeguards consultants have been hired to assist with the preparation of safeguards instruments, and more consultants will be hired during implementation.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key beneficiaries of the project include about 1,285,000 residents, of whom around 646,000 are female, in the seven selected counties/cities in Jiangxi Province. The project beneficiaries include rural and urban residents and participating farmers.

During the EA preparation, two rounds of public consultation were undertaken: the first round at the beginning of EA preparation (EIA TOR) starting in November 2015 and the second round in 2016 after the first draft EA safeguards documents were prepared. Consultations were carried out through questionnaires, interviews and meetings with project affected people, experts, and government agencies. In general, local people support this project. Main feedback from the public has been addressed in the project design and the ESMP►(s mitigation measures. In accordance with the Bank►(s information disclosure policy, prior to project appraisal, the environmental safeguards documents were locally disclosed at the local government websites and library on July 25, 2016 with an announcement published at local newspaper on July 30, 2016; the social safeguards documents were disclosed at local government websites on August 31, 2016, with an announcement published at local newspaper on September 5, 2016. The safeguards documents were disclosed at the Bank►(s external website on September 9, 2016.

A resettlement management system with proper staff and resources in the PMO and in project counties will be established prior to resettlement commencement according to the RP, to internally monitor the resettlement progress and report semiannually to the Bank. A dedicated staff was appointed in the PMO and each county PMO to be responsible for the resettlement related assignment. In addition, an experienced external resettlement monitor will be contractually engaged according to the RP to ensure regularly monitoring and reporting. Further, the training program in the RP will be conducted as early as possible to ensure capacity building.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	24-Aug-2016
Date of submission to InfoShop	09-Sep-2016
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
"In country" Disclosure	
China	25-Jul-2016
Comments: na	
Resettlement Action Plan/Framework/Policy Process	
Date of receipt by the Bank	24-Aug-2016

Date of submission to InfoShop	09-Sep-2016
"In country" Disclosure	
China	31-Aug-2016
Comments: na	
Pest Management Plan	
Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	24-Aug-2016
Date of submission to InfoShop	09-Sep-2016
"In country" Disclosure	
Comments:	
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/ Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	
na	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report?	Yes [×] No [ ] NA [ ]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [×] No [ ] NA [ ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [×] No [ ] NA [ ]
OP/BP 4.04 - Natural Habitats	
Would the project result in any significant conversion or degradation of critical natural habitats?	Yes [ ] No [×] NA [ ]
If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?	Yes [ ] No [ ] NA [×]
OP 4.09 - Pest Management	
Does the EA adequately address the pest management issues?	Yes [ ] No [ ] NA [ ]
Is a separate PMP required?	Yes [ ] No [ ] NA [ ]
If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design?If yes, does the project team include a Pest Management Specialist?	Yes [ ] No [ ] NA [ ]
OP/BP 4.12 - Involuntary Resettlement	
Has a resettlement plan/abbreviated plan/policy framework/ process framework (as appropriate) been prepared?	Yes [×] No [ ] NA [ ]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [×] No [ ] NA [ ]

Is physical displacement/relocation expected? Provided estimated number of people to be affected	Yes [ ] No [×] TBD [ ]
Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means of livelihoods) 8800 Provided estimated number of people to be affected	Yes [×] No [ ] TBD [ ]
The World Bank Policy on Disclosure of Information	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [×] No [ ] NA [ ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [×] No [ ] NA [ ]
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [×] No [ ] NA [ ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [×] No [ ] NA [ ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [×] No [ ] NA [ ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [×] No [ ] NA [ ]

III. APPROVALS

Task Team Leader(s):	Name: Ximing Zhang,Solvita Klapare	
Approved By		
Safeguards Advisor:	Name: Peter Leonard (SA)	Date: 13-Nov-2016
Practice Manager/ Manager:	Name: Sudipto Sarkar (PMGR)	Date: 13-Nov-2016