INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC235

Date ISDS Prepared/Updated: 11-Apr-2012

I. BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Project Name</th>
<th>Task Team Leader</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Managing Unit</th>
<th>Lending Instrument</th>
<th>Financing Source</th>
<th>Amount</th>
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<tbody>
<tr>
<td>China</td>
<td>P128867</td>
<td>Jiangxi Wuxikou Integrated Flood Management Project (P128867)</td>
<td>Liping Jiang</td>
<td>18-Sep-2012</td>
<td>09-Jul-2013</td>
<td>EASCS</td>
<td>Specific Investment Loan</td>
<td>International Bank for Reconstruction and Development</td>
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B. Project Objectives

The Project development objective is to reduce the flood risk in the central urban area of Jingdezhen City through implementation of priority structural and non-structural measures. The project will help increase the flood protection level from twenty-year flood up to fifty-year flood, and contribute to establishment of an integrated flood risk management for the city.

Accompanied benefits of the project will be to maintain environment flow of the river and generate hydropower to meet the peak demand of power. In the long run, the municipal government will explore opportunities to optimize water resources allocation from the reservoir to meet the long-term water demand for social and economic development of the Jingdezhen City.

C. Project Description

Key Development Issues: A major challenge for Jingdezhen City is to reduce the risks of its urban population to frequent floods from the Chang River, a medium-sized river flowing through the downtown of the City. The rainfall in Jingdezhen region is very uneven temporally with almost half concentrated from April to June. The rainfall in the main wet seasons is generally intensive, widespread and of long duration (1-3 days). Jingdezhen City, an industrial and cultural center in Northeastern Jiangxi, is very vulnerable to river flooding with its low ground elevation and very little flood control infrastructure. In addition, storm water within the city would need to be pumped out when the water level is high during flood season.

In the event of a flood, the losses are enormous and increasingly so in recent decades. For instance, in 1996, a river flood inundated 20 km2 of the central urban district with 2-3 m water depth, affecting 353,000 people and 76 industrial enterprises and resulting in direct loss of some US$215 million. Similarly, the 20-year flood event occurred in 1998 put 31km2 of the city under water for 94 hours (with max water depth of 10m in the streets), and affected 354,000 people and over 2,000 production entities with an estimated direct loss of over US$354 million.

Government Strategy: The strategy of Jingdezhen Municipal Government (JMG) is to build a “Combined City Dike-Reservoir System” for protection of the Jingdezhen City from a 50-year flood event of the Changjiang River: (a) the City Dike System – a separate and on-going government program which included construction of dikes along the river sections within the City to upgrade flood protection standard from a 10-year flood event to a 20-year flood event, and rehabilitating the city’s urban drainage system up to a standard of maximum 24 hour storms in 20-year frequency (175mm). The on-going City Dike System will be completed by 2013; and (b) Wuxikou Flood Control Scheme – a government program which was proposed to be financed by the World Bank under this Project and includes construction of a flood control scheme upstream in Fuliang County to upgrade the flood protection standard for the City from a 20-year flood event to a 50-year flood event.

Key Features of Wuxikou Flood Control Scheme (the main dam): According to the current FSR, the preliminary features of the dam are: (a) a dam with max height of 45.6m and crest length of 538m; (b) a reservoir of 487 MCM (of which 294 MCM are flood storage); (c) a hydropower plant with installed capacity of 30 MW and annual average power production of 81 million Kwh; (d) increase the P=95% river flow from 6.56m3/s to 16.4 m3/s through reservoir regulation to meet the demand of both drinking water supply (Q=6.43m3/s by 2020) and minimum environmental flow; (e) resettlement of 10,552 people; and (f) planned construction period is 41 months and total base cost RMBY2.1 billion.

Bank’s Involvement and Value Added: To address the flooding issue in Jingdezhen calls for an integrated flood risk management approach. While
it is essential to build the basic infrastructure such as dikes and storage reservoirs (combined dike - reservoir system) for flood protection, the Bank would fully support improvement of the existing non-structural measures to help communities concerned increase resilience to flooding and adapt to flood risks, in addition to supporting infrastructure construction of the Wuxikou Water Control Scheme. These non-structural measures would include, but not be limited to, flood forecasting and early warning systems, flood risk zoning and management information dissemination, coordinated operations of flood management structures, flood emergency preparedness and action plan, flood disaster assessment, and public awareness and education program as well as capacity building for flood risk management and operations, etc. Furthermore, the integrated flood risk management system would be well coordinated with urban dike and drainage system because they are all part of the urban flood defense system. These form the basis for conception of the proposed project.

The total cost of the project is estimated as RMB Y2, 084.32 million (US$321 million) including US$100 million from the World Bank. Based on the project concept and approach and proposed project development objectives, it’s suggested that the project include the following components:

Component 1: Construction of Wuxikou Water Control Scheme
(1) Construction of Wuxikou Flood Control Scheme - a 45.6m high dam with a crest length of 538m, flood handling structures and appurtenant structures; and
(2) Construction of a power station with three turbines and generating units, with a total installed capacity of 30MW.

Component 2: Establishment of Integrated Flood Risk Management System
(1) Upgrading the flood forecasting, disaster assessment and early warning system to adapt to frequent and extreme weather conditions due to climate change impact, including upgrading of hydrological telemetry network and necessary facilities for integrated flood risk management;
(2) Preparing an operational plan for conjunctive and optimal operations of the Integrated Flood Risk Management System with both structural and non-structural measures; and
(3) Capacity building for integrated flood risk management, including a specialized learning program and knowledge transfer.

Component 3: Implementation of Resettlement Action Plan (to be fully financed by government)
(1) Carrying out a program for the resettlement and rehabilitation of people affected by the implementation of the project

Component 4: Project Management and Implementation Support
(1) Consulting services (including the Expert Group and Dam Safety Panel) to facilitate PMOs for project management and implementation;
(2) Oversea or domestic workshops, training and study tours to ensure that the project management and implementation follows the international practice;
(3) Monitoring and evaluation (M&E) and procurement and financial management information system (MIS); and
(4) Office equipment and working vehicles for project supervision and quality control.

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

The Wuxikou Flood Control Scheme proposed to be financed with the Bank under this project will be constructed in the middle section of the Chang River, which has been already dammed both up and downstream for power generation, water supply or agriculture purposes. Located in hilly area of southeast China, Chang River basin has a subtropical climate with average annual precipitation close to 1,800 mm about half of which falls in April-June.

E. Borrowers Institutional Capacity for Safeguard Policies

A Project Leading Group (PLG) is planned to be established at the level of Jingdezhen Municipal Government to provide coordination for this project. The PLG will be chaired by the responsible Vice Mayor of the municipal government comprising the directly relevant five line departments. The Project Management Office (PMO), chaired by the Deputy Director of the Municipal Water Affairs Bureau and comprising four divisions with 15 staff will be established directly under the PLG.

It is the first time for the borrower to carry out the Bank supported project, and therefore intensive training on the safeguard policies and practice should be provided to them. Their advantageous conditions in this regard are the strong technical support and assistance from the Jiangxi Provincial Hydro-Design Institute which has rich experience on reservoir resettlement guided by the national laws and regulations. In the meantime, social scientists and resettlement experts from Hohai University which has long cooperative relationship with the Bank have been also engaged in this project preparation to ensure the quality of the resettlement work.

The borrower recruited a qualified institute to carry-out full environmental assessment (EA) for domestic approval from 2009 to 2010. The quality of the EA work demonstrates adequate capability of the EA institute. To meet the requirements of the Bank financed project, the borrower is engaging the French Sogreah Consultants to conduct a supplemental EA. Training on WB safeguard policies and guidelines has been provided by the Bank team to the EA institute and project entities, and will continue throughout the preparation process to enhance their capacity for environmental management.

F. Environmental and Social Safeguards Specialists on the Team

Juan D. Quintero (SASDE)
Zong-Cheng Lin (EASCS)
Xiaokai Li (EASIN)
Feng Ji (EASCS)
Peter Leonard (EASSD)
Xin Ren (EASCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
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<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
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### Environmental Assessment OP/BP 4.01

| Yes |

The project involves construction and operation of a dam and reservoir, with flood control structure and hydroelectric generation facilities. The most important impacts of the project include: impacts on riverine aquatic ecosystem of about 22.8 km and associated impacts on aquatic ecosystem; exposure of cut and fill to erosion during construction of the dam, roads and resettlements; short-term impact of the construction work forces in sparsely populated rural area; impacts on terrestrial ecosystem and physical cultural resources including ancient villages in the area.

As per requirements of regulation in China, full environmental assessment (EA) has already been conducted for the project and approved domestically by the Ministry of Environmental Protection in 2010. A Supplemental EIA will be prepared to meet Bank safeguards requirements together with the original EIA. A stand-alone Environmental Management Plan (EMP) will be prepared for the entire project.

A separate Social Impact Assessment (SIA) will cover a wide range of topics that fall beyond safeguards requirements. A comprehensive stand-alone EMP will be prepared to include all mitigation measures developed based on the analysis on such broader social impacts.

Jingdezhenn’s city dikes are being reinforced and almost completed under a city embankment project starting from 2005 as part of flood control system functioning together with the proposed reservoir. Due diligence review of this embankment project is required and the findings will be included in the Supplemental EA report.

Two internationally recognized experts will be invited to provide advice on the EA preparation and resettlement respectively. These two experts will be integrated with the Panel of Experts (PoE) for the Safety of Dams, named Independent Panel of Experts.

### Natural Habitats OP/BP 4.04

| Yes |

The policy is triggered because the project would have impacts on natural habitats (e.g. downstream aquatic habitats) in project influence area. In addition, in the Chang river basin, there are one provincial (cross border from neighboring Jiangxi Province) and six county level nature reserves, all on terrestrial ecosystem. Though far away from the proposed reservoir, some are within 3-5 kilometers from future resettlements and can be affected by human activities. On Chang river and its tributary, there is also a provincial reserve on species protection of aquatic products with its experimental zone overlapping partially with downstream area of the dam. The domestic EA included a thorough analysis of impacts on terrestrial and aquatic ecosystem, based on which measures will be expanded and strengthened to tackle the project’s impacts on these natural habitats and ecosystems.

### Forests OP/BP 4.36

| TBD |

The project would flood some forest areas, and likely have impacts on the health and quality of forests. More information is needed on the use of forest resources and impact on the forest during the preparation of the Supplemental EIA in order to justify whether this policy would be triggered or not.

### Pest Management OP 4.09

| No |

Not applicable. The Task Team will review on an ongoing basis to ensure that no facts/circumstances emerge that would require triggering these policies (e.g. pest management, with respect to use of pesticides).

### Physical Cultural Resources OP/BP 4.11

| Yes |

The policy is triggered because the project site would affect traditional houses, ancient trees, and other old structures that are of cultural value to local villages. The Supplemental EIA will include a detailed survey of the presence of PCRs in the project areaof influence (including household graves) carried out by qualified specialist(s), and include suitable mitigation measures and Chance Find Procedures as part of a PCR Management Plan.

### Indigenous Peoples OP/BP 4.10

| No |

The mission conducted a primary social screening for Indigenous Peoples’ identification through meeting and communication with design institute staff and local township authorities, and visiting the proposed project sites and villages. It found that there were no ethnic minority communities in the project areas of influence. Meanwhile, the Civil Affairs Bureau of Fuliang County, where the Wuxikou reservoir was to be located, also confirmed that the Fuliang county and its up-level Jingdezhenn city was traditionally not the ethnic minority concentrated areas, and there were no ethnic minority groups in these areas. Therefore, the mission concluded that OP4.10 does not apply to this project.

### Involuntary Resettlement OP/BP 4.12

| Yes |

The ID mission found that the proposed Wuxikou reservoir will inundate more than 10902 mu of farmland and relocate about 10628 people from 21 villages in Fuliang County if the water level is designed at El 56m, according to the inundation impact survey based on the project feasibility studies. In addition, in
the dam-site about 658 mu of land will be requisitioned and 299 people in 79 households need to be relocated. Therefore, OP4.12 is triggered under this project. A full RAP is being developed by the project entity with guidance from the Bank team and assistance from the experienced consulting unit.

The RAP will cover resettlement in the reservoir area and the dam-site (including a recent-cleared access path to the dam-site). Implementation of the RAP will be monitored by on-site oversight and an internationally recognized resettlement expert will be included in the PoE (Panel of Experts) for safety of the dams in order to guide the resettlement as needed.

Safety of Dams OP/BP 4.37
Yes
The proposed project directly supports construction of Wuxikou dams, and there are 17 related existing dams in the basin the failure of which could potentially affect the beneficiary areas of the project or safe operation of Wuxikou dam. A dam safety panel (DSP) of qualified experts has been established to review the dam safety plans prepared by the Jingdezhen PMO for Wuxikou dam and review the safety status and management for the other dams which trigger the Bank policy on dam safety. The first DSP meeting took place January 19-29, 2012. DSP review report were reviewed by and discussed with Bank team and its recommendations have been incorporated in the dam safety action plan for Wuxikou dam and the related existing dams. The 2nd meeting of the DSP is scheduled prior to project appraisal to review the status of recommended actions and agree on necessary follow-up actions during project implementation.

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<th>Projects on International Waterways OP/BP 7.50</th>
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<th>Projects in Disputed Areas OP/BP 7.60</th>
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### III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 01-Mar-2012

B. 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:

RAP preparation for the Bank supported project started in November 2011 and would be completed January 2012, based on all the survey studies and consultation in the past two years.

Next preparation mission in February /March 2012 will review the Supplemental EA report prepared by the EA institute based on the recommendations made by the ID mission and the TOR reviewed by the Bank team.

### IV. APPROVALS

| Task Team Leader: | Name: Liping Jiang |
| Approved By:      |
| Regional Safeguards Coordinator: | Name: Panneer Selvam Lakshminarayan (RSA) | Date: 19-Apr-2012 |
| Sector Manager:   | Name: Paul Kriss (SM) | Date: 10-Apr-2012 |

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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.