Social Assessment Report for the World Bank-financed Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project

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July 2012
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Abbreviations

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<th>Description</th>
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<tbody>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>HD</td>
<td>House Demolition</td>
</tr>
<tr>
<td>LA</td>
<td>Land Acquisition</td>
</tr>
<tr>
<td>PMO</td>
<td>Project Management Office</td>
</tr>
<tr>
<td>PRC</td>
<td>People’s Republic of China</td>
</tr>
<tr>
<td>SA</td>
<td>Social Assessment</td>
</tr>
</tbody>
</table>

Units

Currency unit = Yuan (RMB)
1.00 yuan = $0.15
1 hectare = 15 mu
Abstract

The Poyang Lake Ecological Economic Zone is the direct hinterland for the Yangtze River Delta, Pearl River Delta and West Coast Economic Zone, and one of the growth poles being formed in central China, and has favorable conditions for developing the ecological economy, and promoting balanced ecological and economic development.

The goal of the World Bank-financed Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project (hereinafter, the “Project”) is to facilitate the development of the Poyang Lake Ecological Economic Zone, provide better public services to local residents, improve the quality of life of beneficiaries, and drive sustainable social and environmental development by improving the urban road systems in the project counties and townships in Jiangxi Province, and improving urban water utilization, supply and drainage systems, and other infrastructure.

The Social Assessment (SA) Team from the Dept. of Sociology of Hohai University was appointed by the World Bank to conduct an SA on the Project in March 2012. The Project includes 22 subprojects falling into 3 categories in 11 project counties. 10 subprojects in 5 counties were covered by this SA.

The literature review, focus group discussion (FGD), typical household survey, questionnaire survey and field visit methods were used to collect information in this SA, and the combined qualitative and quantitative analysis method, comparative analysis method, logical framework analysis method, stakeholder analysis method, participatory assessment and other SA methods were used to assess the collected information scientifically. A detailed analysis of the project background, stakeholders, and social impacts and risks has been made. Acknowledgement goes to residents and officials in the project counties, who provided great support to the SA task force in information collection during the survey, so that this report was completed quickly.

The framework of this report is as follows: Chapters 1 and 2 make a brief introduction to the background, SA methods and process of the Project; Chapters 3-5 cover project profile, stakeholder analysis, public participation, social impact analysis, and social risk management for different categories of subprojects (the formerly two categories were subdivided into 3 categories), and provide summary tables and charts; Chapter 6 provides conclusions and feasible suggestions for different categories of subprojects; the list of participants, interview outlines and questionnaires in this SA are attached hereto.

The Project is a project focused on infrastructure construction, and assesses different categories of subprojects.

For the road construction and improvement subprojects, (1) These subprojects will promote local sustainable development; (2) Local residents support these subprojects; (3) These subprojects have resettlement risks; (4) Vulnerable groups will benefit greatly from these subprojects; (5) These subprojects have certain impacts on some enterprises; and (6) The public participation system has been established preliminarily.

For the flood protection and drainage subprojects, (1) These subprojects will improve residents’ livelihoods, and promote local social and economic development; (2) Residents in the project area support these subprojects; (3) These subprojects involve land acquisition (LA) and house demolition (HD) risks; (4) Villagers’ drinking water may be affected by these subprojects; (5) Some farmland irrigation facilities will be affected by these subprojects; (7)
Information disclosure and public participation have to be improved; (8) Vulnerable groups are affected slightly by these subprojects.

For the water supply and wastewater subprojects, (1) These subprojects open up new water sources for the project area, and ensure local water supply quality and amount; (2) These subprojects meet water demand in social development and urbanization; (3) These subprojects provide safe, hygienic, convenient and ample water supply to residents, and are livelihood projects; (4) The main risk of these subprojects is how to settle the conflicts between the existing waterworks in the project area and those constructed in these subprojects, and between the residents in the project area and the waterworks constructed in these subprojects; (5) The public participation system has been established preliminarily.

The task force has made feasible suggestions for the above conclusions, as detailed in Chapter 6. In general, the task force thinks that the subprojects covered by this SA are suited to the local socioeconomic levels of the project area, and can meet local residents’ needs for ecological protection and urbanization, and local residents support the implementation of the Project. Vulnerable groups benefit from the Project to the same extent as ordinary residents and are affected slightly by the Project, and their impacts can be made up through policy measures. Of course, the Project’s risks are non-negligible (refer to the relevant chapters), and the potential social risks identified by the task force may be avoided through the preparatory work of the implementing agencies, project design optimization, and project management improvement.
1 Background

1.1 Basic Information on the Project

The State Council of the People’s Republic of China approved the Development Plan of the Poyang Lake Ecological Economic Zone on December 12, 2010, making the construction of the Poyang Lake Ecological Economic Zone a national strategy. This was the first regional development plan that became a national strategy in Jiangxi Province since the foundation of the People’s Republic of China. In the Plan, the Poyang Lake Ecological Economic Zone includes Nanchang, Jingdezhen and Yingtan Municipalities, and some counties (cities, districts) in Jiujiang, Xinyu, Fuzhou, Yichun, Shangrao and Ji’an Municipalities, with 38 counties (cities, districts) in total and a territory of 51,200 km². The Poyang Lake Ecological Economic Zone is the direct hinterland for the Yangtze River Delta, Pearl River Delta and West Coast Economic Zone, and one of the growth poles being formed in central China, and has favorable conditions for developing the ecological economy, and promoting balanced ecological and economic development.

The project area has been identified within the planning area of the Poyang Lake Ecological Economic Zone to represent different types and levels of social and economic development, and in consideration of project implementation capacity and fiscal affordability. The finally chosen project counties and cities are Jinxian County in Nanchang Municipality; Luxi County in Pingxiang Municipality; Gongchengqing City and Jiujiang County in Jiujiang Municipality; Ganxian County and Ruijin City in Ganzhou Municipality; Jingangshan City in Ji’an Municipality; Yifeng County in Yichun Municipality; Nanfeng County in Fuzhou Municipality; Dexing City and Hengfeng County in Shaoao Municipality, 11 project counties (cities) in total (see Figure 1-1).

Figure 1-1 Schematic Map of the Project Area
1.2 Components

The goal of the Project is to facilitate the development of the Poyang Lake Ecological Economic Zone, provide better public services to local residents, improve the quality of life of beneficiaries, and drive sustainable social and environmental development by improving the urban road systems in the project counties and townships in Jiangxi Province, and improving urban water utilization, supply and drainage systems, and other infrastructure. The Project has the following components: (1) Road construction and improvement: This component includes the construction and improvement of urban trunk roads, and the construction of external access roads, township highways, drainage networks, and landscaping and lighting works; (2) Flood protection and drainage: This component includes the construction of urban flood protection systems, water supply facilities, integrated river management and sewer networks, and urban wetland conservation and utilization; (3) Project monitoring and evaluation, and institutional capacity building: This component aims to improve the project management level and implementation capacity of all project agencies through training, consultation, visit and office condition improvement.

The Project includes 22 subprojects falling into 3 categories in 11 project counties. 10 subprojects in 5 counties were covered by this SA, almost covering all types of subprojects (Table 1-1).

Table 1-1 Summary of Subprojects Selected for SA

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Scope and scale of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yifeng County</strong></td>
<td></td>
</tr>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>The bridge is 156m long and 25.5m wide; the road is 1.464km long and 40m wide; this is a Class II urban trunk road.</td>
</tr>
<tr>
<td><strong>Luxi County</strong></td>
<td></td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>4.95km (including Yuanhe East Road 2.08km, Gaolou Road 0.86km, Zijing Road 0.83km and Huangzi Road 1.18km)</td>
</tr>
<tr>
<td>Luxi County Yuanhe River Flood Bank Ecological Management Project</td>
<td>River channel from Dongzhou Bridge on National Highway 320 to Shankouyan Bridge in the Luxi county town, with a total dike length of about 6.0 km and a total basin area of 240 km²</td>
</tr>
<tr>
<td>Luxi County Water Supply System Improvement Project</td>
<td>Expansion of the urban waterworks and construction of main delivery pipelines of 5.9km, increase of daily supply capacity by 10,000 tons (The Shankouyan Reservoir was completed and put into operation in May 2012.)</td>
</tr>
<tr>
<td><strong>Ganxian County</strong></td>
<td></td>
</tr>
<tr>
<td>Yiyuan Avenue – Ganchang Highway Connecting Road Project in Yiyuan New District, Ganxian County</td>
<td>3,300m long and 32m wide; Class III urban trunk road</td>
</tr>
<tr>
<td><strong>Jinxian County</strong></td>
<td></td>
</tr>
<tr>
<td>Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project</td>
<td>Reinforcement and improvement of 17.052km of flood bank, and revetments of Qinglan Lake; construction or reconstruction of two electric drainage stations with a total installed capacity of 2,500 kW, and 3 level control sluices</td>
</tr>
<tr>
<td><strong>Gongqingcheng</strong></td>
<td></td>
</tr>
<tr>
<td>Gongqingcheng Wusi-Junshan Avenue Project</td>
<td>About 8,000m long and 24m wide, no roadbed for 3km</td>
</tr>
<tr>
<td>Gongqingcheng – Sujiadang Xiang Highway Project</td>
<td>About 8,000m long and 20m wide, no roadbed for 3km</td>
</tr>
<tr>
<td>Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng</td>
<td>About 12,000m long (including a 300m long bridge) and 20m wide</td>
</tr>
</tbody>
</table>
1.3 Socioeconomic Profile of the Project Area

1.1.1 Overview of Jiangxi Province

Jiangxi Province is located in southeastern China, close to central China, south of the middle and lower Yangtze River, bordering Zhejiang and Fujian Provinces on the east, Guangdong Province on the south, Hunan Province on the west, and Hubei and Anhui Provinces on the north, and close to central cities like Wuhan, Nanjing and Shanghai. The provincial capital is Nanchang.

Jiangxi is located between north latitude 24°7′-29°9′ and east longitude 114°02′-118°28′, with a land area of 166,900 km², accounting for 1.73% in China.

In 2010, Jiangxi’s population was 44.5675 million, including an urban population of 19.6364 million, accounting for 44.06%, and a rural population of 24.931 million, accounting for 55.94%. Jiangxi is composed of 11 prefecture-level municipalities, 11 county-level cities, 70 counties and 26 urban districts.

Jiangxi is an economically developed inland province of China, and has experienced many consecutive years of rapid economic development. In 2010, Jiangxi’s regional GDP was 943.5 billion yuan, a year-on-year growth of 14.0%. The added value of primary industries was 120.59 billion yuan, a year-on-year growth of 4.0%; that of secondary industries 519.47 billion yuan, up 18.3%; and that of tertiary industries 303.44 billion yuan, up 10.8%. The contribution rates of the three types of industries to economic growth are 3.8%, 71.2% and 25.0% respectively, and their proportions are 12.8%, 55.0% and 32.2% respectively. In 2010, Jiangxi’s fiscal revenue broke through 100 billion yuan and reached 122.6 billion yuan, an increase of 29.71 billion yuan or 32% from the previous year, in which local fiscal revenue was 77.78 billion yuan, a year-on-year growth of 33.8%. Tax revenue was 103.33 billion yuan, up 32.9%, accounting for 84.3% of fiscal revenue, a year-on-year increase of 0.6 percentage point. Social investment in fixed assets was 877.55 billion yuan, a year-on-year growth of 32.1%, in which urban investment in fixed assets was 785.67 billion yuan, up 30.8%. Gross import and export volume was US$21.453 billion, a year-on-year growth of 67.9%, in which export volume was US$13.416 billion, up 82.1%, and import volume US$8.037 billion, up 48.5%.

Jiangxi is one of the wealthy and well-being regions of China. In 2010, social retail sales of consumer goods were 293.29 billion yuan, a year-on-year growth of 19.2%, farmers’ per capita net income 5,789 yuan, a year-on-year growth of 14.1%, urban residents’ per capita disposable income 15,481 yuan, up 10.4%, the Engel’s coefficient of rural residents 46.3% and that of urban residents 39.5%.

Small-grant secured loans amounting to 4.85 billion yuan were granted in 2010, supporting the business startup of 72,000 men-times directly and resulting in the employment of 233,000 men-times, and the accumulated balance of secured loans reached 17.24 billion yuan, leading in China for 8 consecutive years. 69,000 people born in the 1940s and 1950s were reemployed. At the year end, 6.076 million people were covered by urban basic endowment insurance, a year-on-year growth of 4.4%, including 4.621 million workers and 1.455 million retirees; 5.321 million people were covered by urban workers’ medical insurance, including 3.656 million workers and 1.665 million retirees; 2.653 million people
were covered by unemployment insurance. Minimum living security benefits amounting to 2.05 billion yuan were paid to urban households, with a monthly per capita amount of 252 yuan, and 1.37 billion yuan paid to rural households, with a monthly per capita amount of 75 yuan.

Jiangxi has 38 ethnic groups, including 44,415,064 Han people, accounting for 99.66%, in which ethnic minorities accounted for 0.34%, especially Hui, She, Zhuang, Manchu, Miao, Yao, Mongolian, Dong, Korean, Tuji and Buyi. She people live centrally, mainly in Chitu Xiang in Nankang City, Taiyuan Xiang in Shangrao Municipality and Zhangping Xiang in Guixi City, and Yao people live partially centrally; the other ethnic minorities are scattered.

1.1.2 Poyang Lake Ecological Economic Zone

Poyang Lake is located in Jiangxi and is the largest freshwater lake of China, 73km long longitudinally and 16.9km wide latitudinally on average, with a lakeshore length of 1,200km, a surface area of 3,583 km² (outlet level 21.71m), an average depth of 8.4m, a maximum depth of 25.1m and a volume of about 27.6 billion m³. It receives water from the Ganjiang, Fuhe, Xinjiang, Raohe and Xiuye Rivers, and discharges water to the Yangtze River—the longest river of China. Poyang Lake has a basin area of 162,200 km², accounting for 97% of Jiangxi’s basin area and 9% of the Yangtze River basin area. The annual average runoff of its water system is 152.5 billion m³, accounting for 16.3% of that of the Yangtze River. Poyang Lake is an important ecological zone defined by the World Wide Fund for Nature, one of the 6 major wetlands of the world rich in diversity and the only Chinese member of World Living Lake Network. Its beautiful ecology is rare in the world.

The Poyang Lake Ecological Economic Zone is planned as an ecological economic demonstration zone and low-carbon economy pioneer zone of China in which ecological civilization is coordinated with social and economic development, and human and nature live together harmoniously. On December 12, 2009, the Poyang Lake Ecological Economic Zone became a national strategy formally, which was a far-reaching milestone in Jiangxi’s development history.

The Poyang Lake Ecological Economic Zone is located in northern Jiangxi, and includes Nanchang, Jingdezhen and Yingtian Municipalities, and some counties (cities, districts) in Jiujiang, Xinyu, Fuzhou, Yichun, Shangrao and Ji’an Municipalities, with 38 counties (cities, districts) in total and a territory of 51,200 km², accounting for 30% of Jiangxi’s territory, 50% of Jiangxi’s population and 60% of Jiangxi’s economic volume. This zone performs a number of ecological functions, including flood and climate regulation, water impoundment, and pollutant decomposition. Poyang Lake is also an important regulating lake of the Yangtze River, and plays an important role in the water safety of the Poyang Lake basin, and the middle and lower Yangtze River basin. The Poyang Lake Ecological Economic Zone is also the direct hinterland for the Yangtze River Delta, Pearl River Delta and West Coast Economic Zone, one of the growth poles being formed in central China, an important manufacturing base in central China, and one of the three main innovative regions of China, and has favorable conditions for developing the ecological economy, and promoting balanced ecological and economic development.

In 2020, the Poyang Lake Ecological Economic Zone’s GDP reached 555.46 billion yuan, accounting for 58.9% of that of Jiangxi Province. Therefore, this zone has great potential of development. However, due to the limitation of traffic and the shortage of living infrastructure in some areas, this zone is developing slowly. It is believed that the Bank loan will boost the
development of this zone by improving basic infrastructure and production conditions.

1.1.3 Profile of Project Counties

1.1.3.1 Yifeng County

Yifeng County is located on the south piedmont of the Jiuling Mountain Range in northwestern Jiangxi, between east longitude 114-115° and north latitude 28-29°. The county has a land area of 1,935 km², and governs 16 townships with 166 administrative villages. The county town Xinchang Town is 120km away from Nanchang Municipality and 90km away from Yichun Municipality. The county is a producing area of bamboo, kiwifruit, high-quality rice and rare metals, one of the top 100 counties strong in township enterprises.

At the end of 2010, the county’s population was 285,400, including an agricultural population of 191,800, accounting for 67.20%, and a nonagricultural population of 93,600, accounting for 32.80%.

During the 11th 5-year plan period, the county’s economy developed rapidly, and the key indicators of social and economic development doubled. The county’s GDP rose from 2.205 billion yuan to 5.104 billion yuan, an annual average growth rate of 13.8%. The added value of primary industries was 1.15 billion yuan, a year-on-year growth of 5.6%; that of secondary industries 2.596 billion yuan, a year-on-year growth of 20.1%; and that of tertiary industries 1.358 billion yuan, a year-on-year growth of 16.5%. The proportions of the three types of industries were adjusted from 25.39:48.04:26.57 to 22.53:50.86:26.61, and the proportion of secondary industries exceeded 50% for the first time. Per capita GDP was 18,000 yuan, and fiscal revenue grew rapidly to produce a balance. In 2010, the county’s fiscal revenue was 502.08 million yuan, an increase of 139.69 million yuan or 38.5% from the previous year. In 2010, the county’s social investment in fixed assets was 2.6896 billion yuan, a year-on-year growth of 30.3%, farmers’ per capita net income 5,902 yuan, per capita income of urban workers 22,061 yuan, and urban residents’ per capita disposable income 13,451 yuan.

The county’s social relief system has been improving. In 2010, 19,588 received social relief, in which 8,957 urban residents received minimum living security with a total amount of 17.92 million yuan, and 83,098 rural residents received minimum living security with a total amount of 27.844 million yuan.

The county has 16 ethnic minorities with a total population of 996, which are Mongolian, Hui, Tibetan, Zhuang, Miao, Dong, Yao, Korean, Naxi, Tujia, Tu, Jing, Manchu, She and Yi, distributed mainly in Cheshang Forest Farm, Shihuajian and Huanggangshan Cultivation Farms, Tanshan Town and Tianbao Xiang.

1.1.3.2 Luxi County

Luxi County is located in western Jiangxi and the upper Yuanhe River, bordering Yuanzhou District of Yichun Municipality on the east, Anyuan and Xiangdong Districts on the west, Shangli County on the north, and Lianhua and Anfu Counties on the south, between 113°55′-114°16′ and north latitude 27°25′-27°47′. The county has a land area of 968 km², featuring moderate climate, sufficient sunshine and ample rainfall. At the end of 2010, the county’s population was 290,500, including an agricultural population of 243,300, accounting for 83.75%, and a nonagricultural population of 46,600, accounting for 16.25%. The county governs 5 towns and 5 Xiangs with 15 community committees and 136 administrative villages.
In 2010, the county’s regional GDP was 7.308 billion yuan, a year-on-year growth of 13.5%, 25,198 yuan per capita. The proportions of the three types of industries were 13.8%, 64.2% and 22%. Fiscal revenue was 623 million yuan, a year-on-year growth of 41.2%, social investment in fixed assets 10.334 billion yuan, a year-on-year growth of 31.4%, workers’ per capita annual pay 21,568 yuan and farmers’ per capita net income 6,867 yuan.

In 2010, 5,100 urban households with 9,863 persons were covered by minimum living security, with 1.9761 million yuan paid in total, and 5,857 rural households with 10,300 persons were covered by minimum living security, with 929,400 yuan paid in total.

In 2010, the county had a minority population of 371, including Zhuang, Yao, Miao, Dong, Tibetan, Tu, Mongolian and Li people, distributed mainly in Luxi, Shangbu and Xuanfeng Towns, and Yunnan Xiang.

1.1.3.3  Ganxian County

Ganxian County is governed by Ganzhou Municipality, and located in southern Jiangxi and the center of Ganzhou Municipality, within east longitude 114°42‘-115°22‘ and north latitude 25°26‘-26°17‘, with a land area of 2,993 km². At the end of 2010, the county’s population was 616,100, including an agricultural population of 516,400 and a nonagricultural population of 99,700. The county is lowly urbanized and is a state-level poor county.

In 2010, the county’s regional GDP was 7.464 billion yuan, a year-on-year growth of 12.5%, ranking 6th in the municipality, 13,094 yuan per capita, a year-on-year growth of 18.9%. The added value of primary industries was 1.379 billion yuan, up 5.1%; that of secondary industries 4.118 billion yuan, up 8.6%; and that of tertiary industries 1.967 billion yuan, up 23.5%. The proportions of the three types of industries were adjusted from 20.0:54.8:25.2 to 18.8:55.2:26. Fiscal revenue was 702 million yuan, workers’ per capita annual pay 23,845 yuan and farmers’ per capita annual income 3,190 yuan, which was extremely low, less than the national, provincial and municipal averages by 2,729 yuan, 2,599 yuan and 992 yuan respectively. The per capita annual expenditure of urban residents was 8,383.9 yuan, including a medical expenditure of 475.69 yuan, and the per capita annual expenditure of rural residents was 3,222.28 yuan, including a medical expenditure of 156.48 yuan.

The county abounds with mineral resources. 38 minerals have been proven, including tungsten, coal, rare earth, lead, zinc, porcelain clay, iron, sulfur, copper, tin and gold, especially rare earth and tungsten. Currently, there are over 20 rare earth and tungsten processing enterprises in the county, and a complete further processing industry chain has been created. The county is renowned for Hakka culture, and has become a cultural tourism destination that attracts worldwide visitors. The county has the largest and fullest-featured Hakka culture building complex of China, which was rated as a state-level 4A scenic zone in 2009.

Based on the poverty line of farmers’ per capita net income of 1,274 yuan, the county had a poor population of 22,000 at the end of 2010, and its poverty incidence is nearly twice that of Jiangxi Province. According to the new national poverty relief standard of farmers’ per capita net income of 2,300 yuan, the number of subjects of poverty relief in the county was about 124,500 at the end of 2011, accounting for 24.11% of the county’s agricultural population. The poor population spreads all the 19 townships and 276 administrative villages, especially reservoir areas and remote mountainous areas.

The county has 18 ethnic minorities with a total population of 2,293, including She,
Jinxiyuan is located in northern central Jiangxi, south of Poyang Lake, at east longitude 116°12′ and north latitude 28°37′, run through by the Zhe-Gan Railway, and National Highways 316 and 320. The county is governed by Nanchang Municipality. The county has a land area of 1,955 km² and a population of 819,800 (2010), including an agricultural population of 641,100 and a non-agricultural population of 178,700. The county governs 9 towns, 12 Xiangs and one farm with 28 community committees and 270 administrative villages.

In 2010, the county’s regional GDP was 16.524 billion yuan, a year-on-year growth of 13.2%, in which the added value of primary industries was 3.17 billion yuan, a year-on-year growth of 5%; that of secondary industries 9.267 billion yuan, a year-on-year growth of 15%; and that of tertiary industries 4.087 billion yuan, a year-on-year growth of 15.4%. The proportions of the three types of industries were 19.18:56.08:24.74. Fiscal revenue was 769 million yuan, a year-on-year growth of 41.2%, workers’ annual average pay 20,208 yuan, a year-on-year growth of 10%, and farmers’ per capita net income 6,980 yuan, a year-on-year growth of 15.31%.

The county’s main products include medical apparatus, pens, distilled spirits, fireworks and firecrackers, especially fireworks and firecrackers. At the end of 2010, 33,151 people were covered by urban basic endowment insurance, a year-on-year growth of 2.2%, and 6,482 urban households with 11,757 persons and 16,762 rural households with 30,947 persons were covered by minimum living security. 55,428 people were covered by urban medical insurance and 579,943 people covered by rural cooperative medical insurance. The county has a Han population of 690,392, accounting for 99.993%, and a minority population of 54, accounting for 0.007%.

Gongchengqing City

Gongchengqing City is located in northern Jiangxi, beside Poyang Lake and the Lushan Mountain, at the middle part of the Chang-Jiu Expressway, at north latitude 29.19′ and east longitude 115.58′, bordering Baota Xiang in De’an County on the north, Xingxi County on the east, Yanfang Town in Yongxiu County on the west, and Poyang Lake on the southeast, 60 km away from Nanchang and 60 km away from Jiujian. The city is renowned as a “pearl beside Poyang Lake and well-known city on the Beijing-Kowloon Railway”. In September 2010, the State Council approved Gongqingcheng as a county-level city, and transferred Yanfang and Pingtang Villages in Yanfang Town, Yongxiu County, and Zequan and Duijiaodang Xiangs in Xingxi County to Gongqingcheng. Thus, the city became the 100th county-level administrative division of Jiangxi and the youngest county-level city of China. The city’s land area was expanded from 169.18 km² to 285.9 km², and population from 65,300 to 128,000. The city’s urbanization rate is 54.6%.

In 2011, the city’s regional GDP was 4.374 billion yuan, up 15.2% from 2010. The proportions of the three types of industries were 3.7:85:11.3. Fiscal revenue was 544.7 million yuan, up 55.5% from 2010; social investment in fixed assets 6.529 billion yuan, up 49.3% from 2010; and social retail sales of consumer goods 602.47 million yuan, up 18.3% from
2010, in which urban retail sales of consumer goods were 457 million yuan.

In 2011, 4,936 urban residents were covered by minimum living security, with a subsidy rate of 202 yuan per capita per month, and 1,844 rural residents were covered by minimum living security, with a subsidy rate of 101.77 yuan per capita per month. At the end of 2010, the city had a minority population of 170.

Table 1-2 Summary of Basic Information of Project Counties (data of 2010 unless otherwise indicated)

<table>
<thead>
<tr>
<th></th>
<th>Jiangxi Province</th>
<th>Yifeng County</th>
<th>Luxi County</th>
<th>Ganxian County</th>
<th>Jinxian County</th>
<th>Gongqingcheng City (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land area, km²</td>
<td>166,900</td>
<td>1935</td>
<td>968</td>
<td>2993</td>
<td>1955</td>
<td>285.9</td>
</tr>
<tr>
<td>Gross population (0,000)</td>
<td>4456.75</td>
<td>28.54</td>
<td>29.05</td>
<td>61.61</td>
<td>81.98</td>
<td>11.11</td>
</tr>
<tr>
<td>Nonagricultural population (0,000)</td>
<td>1963.64</td>
<td>8.10</td>
<td>4.66</td>
<td>9.97</td>
<td>17.87</td>
<td>3.11</td>
</tr>
<tr>
<td>Urbanization rate (%)</td>
<td>44.06</td>
<td>28.07</td>
<td>16.04</td>
<td>16.18</td>
<td>21.80</td>
<td>27.99</td>
</tr>
<tr>
<td>Males (0,000)</td>
<td>14.85</td>
<td>14.98</td>
<td>32.16</td>
<td>42.93</td>
<td>5.84</td>
<td></td>
</tr>
<tr>
<td>Regional GDP (00m yuan)</td>
<td>9435.0</td>
<td>51.04</td>
<td>73.1</td>
<td>74.64</td>
<td>165.24</td>
<td>43.74</td>
</tr>
<tr>
<td>Proportion of primary industries (%)</td>
<td>3.8</td>
<td>22.53</td>
<td>13.8</td>
<td>18.8</td>
<td>19.18</td>
<td>3.9</td>
</tr>
<tr>
<td>Proportion of secondary industries (%)</td>
<td>71.2</td>
<td>50.86</td>
<td>64.2</td>
<td>55.2</td>
<td>56.08</td>
<td>82.2</td>
</tr>
<tr>
<td>Proportion of tertiary industries (%)</td>
<td>25</td>
<td>26.61</td>
<td>22</td>
<td>26</td>
<td>24.74</td>
<td>13.9</td>
</tr>
<tr>
<td>Fiscal revenue (00m yuan)</td>
<td>1226</td>
<td>5.02</td>
<td>6.23</td>
<td>7.02</td>
<td>7.69</td>
<td>5.45</td>
</tr>
<tr>
<td>Social investment in fixed assets (00m yuan)</td>
<td>8775.5</td>
<td>26.9</td>
<td>103.3</td>
<td>55.9</td>
<td>47.58</td>
<td>65.29</td>
</tr>
<tr>
<td>Social retail sales of consumer goods (00m yuan)</td>
<td>2932.9</td>
<td>9.67</td>
<td>14.33</td>
<td>17.29</td>
<td>32.77</td>
<td>6.02</td>
</tr>
<tr>
<td>Urban retail sales of consumer goods (00m yuan)</td>
<td>2442.6</td>
<td>4.78</td>
<td>12.84</td>
<td>23.58</td>
<td>4.57</td>
<td></td>
</tr>
<tr>
<td>Per capita annual income of employees (yuan)</td>
<td>15481</td>
<td>22016</td>
<td>21568</td>
<td>23845</td>
<td>20208</td>
<td></td>
</tr>
<tr>
<td>urban residents’ per capita disposable income (yuan)</td>
<td>15481</td>
<td>11219</td>
<td>11228</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers’ per capita net income (yuan)</td>
<td>5789</td>
<td>5902</td>
<td>6867</td>
<td>3190</td>
<td>6980</td>
<td></td>
</tr>
<tr>
<td>Urban consumers’ Engel’s coefficient</td>
<td>39.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural consumers’ Engel’s coefficient</td>
<td>45.6%</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
2 Overall Introduction to SA

2.1 Tasks and Objectives of SA

This SA may be divided into 3 stages:
(1) Project identification stage: preliminary screening of social factors;
(2) Project preparation stage: detailed social analysis and evaluation;
(3) Project implementation stage: SA monitoring and evaluation

In view of the current stage of the Project, this SA has covered the first two stages, as shown in Error! Reference source not found..

Table 2-1 Procedure and Scope of SA

<table>
<thead>
<tr>
<th>Stage</th>
<th>Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification stage: preliminary screening of social factors</td>
<td>1) Identifying key stakeholders of strategic significance;</td>
</tr>
<tr>
<td></td>
<td>2) Identifying social matters of significance for the development and implementation of the project program;</td>
</tr>
<tr>
<td></td>
<td>3) Sorting out key social issues by subproject;</td>
</tr>
<tr>
<td></td>
<td>4) Demonstrating the necessity of the Project from the perspective of SA based on the development priorities of different areas and social development objectives;</td>
</tr>
<tr>
<td></td>
<td>5) Identifying possible negative social impacts of the Project;</td>
</tr>
<tr>
<td></td>
<td>6) Judging whether further SA is required.</td>
</tr>
<tr>
<td>Preparatory stage: detailed SA</td>
<td>1) Collecting local socioeconomic and environmental information;</td>
</tr>
<tr>
<td></td>
<td>2) Conducting a questionnaire survey to learn local urban residents’ attitudes to, comments on and suggestions for the construction of a landfill or wastewater treatment plant;</td>
</tr>
<tr>
<td></td>
<td>3) Conducting field visit and interviews, and holding FGDs at the project sites to learn attitudes to, comments on and suggestions for LA, HD and project constructions of local villagers and village committees;</td>
</tr>
<tr>
<td></td>
<td>4) Assessing the compatibility between project activities and local needs;</td>
</tr>
<tr>
<td></td>
<td>5) Assessing organizational and institutional issues, and identifying social resources that facilitate the participation of stakeholders in the Project;</td>
</tr>
<tr>
<td></td>
<td>6) Developing a participation framework to involve men, women, vulnerable groups and stakeholders in a broader sense in the Project;</td>
</tr>
<tr>
<td></td>
<td>7) Designing a participation mechanism as part of the participation framework;</td>
</tr>
<tr>
<td></td>
<td>8) Defining responsibilities of stakeholders and project activities to be monitored;</td>
</tr>
<tr>
<td></td>
<td>9) Developing an implementation plan;</td>
</tr>
<tr>
<td></td>
<td>10) Assessing social benefits and risks (including potential conflicts and costs);</td>
</tr>
<tr>
<td></td>
<td>11) Proposing measures to mitigate negative impacts.</td>
</tr>
</tbody>
</table>

The main purpose of this SA is to identify all social impacts and risks of the Project, propose measures and suggestions to reduce or minimize negative social impacts from the project, align project design, construction and operation with the development objectives of the project area, local conditions and development needs of the target population, promote coordinated socioeconomic and environmental development, improve the effectiveness of project implementation, provide more development opportunities to people in the project area, contribute to regional social development objectives, and better implement the Bank’s Safeguard Policies and realize the entitlements of affected persons stipulated therein.

2.2 Basis and Scope of SA

This SA is based on the following policies and documents mainly:
(1) World Bank, Safeguard Policies
(2) World Bank, Tasks and Requirements for the Project
2.3 Methodology of SA

(1) Combined qualitative and quantitative analysis method

Since this SA is comprehensive and involves complex social issues, quantitative analysis is preferred, such as for population structure, educational level and socioeconomic indicators. These indicators are analyzed arithmetically and evaluated objectively. Qualitative indicators that cannot be quantified should be analyzed and evaluated through a combination of qualitative and quantitative analysis, but primarily qualitative analysis.

(2) Comparative analysis method

The comparative analysis method is designed to find out the social profile of a project county in the absence of the Project, and the impacts of the Project on the county after its completion, thereby identifying the natures and degrees of different benefits and impacts.

(3) Logic framework analysis method

This method is used to analyze causalities of things, and identify the project objectives and the related prerequisites by analyzing a series of processes related to the Project in order to improve the project design.

(4) Stakeholder analysis method

Stakeholders refer to all parties directly or indirectly interested in the Project, and affecting the success of the Project directly or indirectly. In the stakeholder analysis method, we have to first identify different stakeholders involved in the Project and prepare a stakeholder identification table, then evaluate their attitudes to and expectations for the Project, and their importance for the success of the Project, and analyze their interactions with the Project, and finally propose measures to be taken for different stakeholders during project implementation.

(5) Participatory assessment

Participatory assessment is a method that involves all stakeholders in SA. The key points include listening to all stakeholders’ opinions sincerely, extensively, patiently and modestly,
respecting all participants, showing interests in their knowledge, speeches and behaviors, and encouraging them to share their knowledge and ideas. Through a semi-structured survey and whole-process participation, this method will make compensation and resettlement programs, measures for mitigating social risks, and other programs concerning the affected persons’ immediate interests more operable and acceptable.

(6) Other methods

A number of data analysis tools and methods have been used in this SA, including: ① socioeconomic survey; ② related agency analysis; ③ social gender analysis; ④ social impact analysis; ⑤ poverty analysis; and ⑥ social risk assessment.

2.4 Survey Methods

The following survey methods were used mainly in this SA:

(1) Literature review

Literature review is intended to learn the history and background of the project, and the social and economic development of each subproject area, which is an important basis for in-depth field survey. The task force collected feasibility study reports, plans and other documents related to the Project according to the Bank policies of Indigenous Peoples and Involuntary Resettlement, including:

Statistics: social and economic development statistics of Jiangxi Province, the Poyang Lake Ecological Economic Zone and the project counties (cities); census and sampling population survey data; statistics on social relief

Documents: documents of construction, traffic on project implementation; provisions of civil affairs authorities on minimum living security; documents of the social security authorities on unemployment and medical insurance

Research findings: existing research findings on road construction planning, flood control, water treatment, and other findings related to the Project

Design documents related to the Project: project proposals, feasibility study reports and relevant documents

(2) FGD

FGDs were held with functional departments of the local county (city) governments, including county (city) construction bureaus, traffic bureaus, water resources bureaus, statistics bureaus, civil affairs bureaus, social security bureaus, land and resources bureaus, women’s federations, ethnic and religious affairs bureaus, and implementing agencies. According to the drafted SA interview outline, FGDs with officials and technicians of competent authorities aimed to learn their attitude to, ideas about and suggestions for the Project, local social and economic development level, social security condition, people’s employment, per capita income level, local impacts of the Project, production level and living standard of stakeholders, and government policies on project implementation, LA, HD and resettlement.

FGDs representatives of residents at and around the project sites were held to learn LA, HD and social impacts of the Project, socioeconomic profile of the affected villages, attitude to, requirements for and comments on the Project, proposed measures to reduce negative impacts, and preliminary compensation and resettlement programs for LA and HD.

(3) Typical household interview

According to the terms of reference of SA and the survey plan, the task force interviewed typical households (including households in the target beneficiary area, and households
affected by LA and HD) in the project townships and villages to learn the socioeconomic profile, LA and HD impacts, and attitude to, requirements for and comments on compensation and resettlement for LA and HD of households affected by LA and HD, and the household background, willingness to pay and attitude to the Project of households in the target beneficiary area.

(4) Questionnaire survey

According to the terms of reference of SA and the survey plan, the task force chose sample households by stratified and random sampling in consideration of different living standards, places of residence and ethnic groups, and in consultation with the affected community and village committees. See Error! Reference source not found..

Table 2-2 Basic Information on Sampling Survey

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Sample size (household)</th>
<th>Valid samples (household)</th>
<th>Questionnaire effective rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yifeng County</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>40</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td><strong>Luxi County</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>40</td>
<td>36</td>
<td>90</td>
</tr>
<tr>
<td>Luxi County Yuanhe River Flood Bank Ecological Management Project</td>
<td>90</td>
<td>82</td>
<td>91.1</td>
</tr>
<tr>
<td>Luxi County Water Supply System Improvement Project</td>
<td>40</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td><strong>Ganxian County</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yiyuan Avenue – Ganchang Highway Connecting Road Project in Yiyuan New District, Ganxian County</td>
<td>40</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td><strong>Jinxian County</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project</td>
<td>90</td>
<td>86</td>
<td>95.6</td>
</tr>
<tr>
<td><strong>Gongqingcheng</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gongqingcheng Wusi-Junshan Avenue Project</td>
<td>40</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td>Gongqingcheng – Sujiadang Xiang Highway Project</td>
<td>40</td>
<td>36</td>
<td>90</td>
</tr>
<tr>
<td>Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng</td>
<td>40</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td>Gongqingcheng Bus Terminal Project</td>
<td>40</td>
<td>37</td>
<td>92.5</td>
</tr>
</tbody>
</table>

The questionnaire survey covered different age groups, occupations and income levels. At the project sites, local (community) village group leaders and affected villagers (residents) were interviewed, and FGDs involving staff of competent authorities. Through the questionnaire survey, the task force further learned the socioeconomic background of the project sites, residents’ attitude to, requirements for and suggestions on the Project, and their participation in the Project.

(5) Field visit

During the SA, the project sites were visited, including the sites of the road construction and improvement subprojects and their surrounding areas; rivers and lakes involved in the flood protection and drainage subprojects, and surrounding flood-hit areas; and the existing water supply equipment, water intakes and sites of the water supply and wastewater subprojects, and their surrounding areas.
2.5 Field Survey Process

The task force not only let more people learn basic information on the Project, but also collected comments and suggestions from residents through the questionnaire survey; and collected firsthand information, learned information on, comments and suggestions of direct stakeholders, communicated the objectives and expected effects of the Project, enhanced the participation of local stakeholders, and reduced potential concerns through field visits and interviews.

During this SA, the subprojects were adjusted, identified, surveyed and analyzed on the basis of the comments and suggestions of the Bank experts. Field survey and data collection were made through a number of participatory methods, including FGDs with stakeholders. The SA survey schedule is shown in Table 2-3:
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
<th>Participants</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 28, 2012</td>
<td>All subprojects</td>
<td>Jiangxi PMO</td>
<td>SA Team of Hohai University, Jiangxi PMO</td>
<td>Learning the overall situation of the Project</td>
</tr>
<tr>
<td>Feb. 29, 2012</td>
<td>FGD on Yifeng subproject</td>
<td>County development and reform commission</td>
<td>SA Team 1 of Hohai University, construction bureau, house demolition office, Yifeng PMO</td>
<td>Learning details of this subproject, including subproject area and implementation plan</td>
</tr>
<tr>
<td></td>
<td>Field visit of Yifeng subproject</td>
<td>Project site</td>
<td>SA Team 1 of Hohai University, construction bureau, house demolition office, Yifeng PMO</td>
<td>Visiting the project site on site to learn about the surrounding area</td>
</tr>
<tr>
<td>Mar. 1, 2012</td>
<td>Door-to-door survey of Yifeng subproject</td>
<td>Qiantou Village, Taxia Farm, Yifeng county town</td>
<td>SA Team 1 of Hohai University, village committee, local residents, Yifeng PMO</td>
<td>Learning residents’ expectations for, comments and suggestions on the new road and bridge through door-to-door interview and questionnaire survey</td>
</tr>
<tr>
<td>Mar. 2, 2012</td>
<td>FGD on Luxi subproject</td>
<td>Luxi County Construction Bureau</td>
<td>SA Team 1 of Hohai University, construction bureau, house demolition office, water supply company, water resources bureau, Luxi PMO</td>
<td>Learning details of this subproject, including subproject area and implementation plan</td>
</tr>
<tr>
<td></td>
<td>Field visit on Luxi subproject</td>
<td>Project site</td>
<td>SA Team of Hohai University, construction bureau, house demolition office, water supply company, water resources bureau, Luxi PMO</td>
<td>Visiting the project site on site to learn about the surrounding area</td>
</tr>
<tr>
<td>Mar. 3, 2012</td>
<td>Door-to-door survey of Luxi subproject</td>
<td>Shankouyan, Shanxia, Gengtian, Gaolou and Tantian Villages</td>
<td>SA Team 1 of Hohai University, village committee, local residents, Luxi PMO</td>
<td>Learning residents’ expectations for, comments and suggestions on the new road through door-to-door interview and questionnaire survey</td>
</tr>
<tr>
<td></td>
<td>Visit of waterworks of the Luxi County Water Supply System Improvement Project</td>
<td>Water supply company and its water intake</td>
<td>SA Team 2 of Hohai University, water supply company</td>
<td>Learning the water supply and treatment capacity of the existing water supply company, and the water intake</td>
</tr>
<tr>
<td></td>
<td>Visit of water source of this subproject</td>
<td>Shankouyan Reservoir</td>
<td>SA Team 2 of Hohai University, water supply company</td>
<td>Learning about the proposed water source</td>
</tr>
<tr>
<td>Mar. 4, 2012</td>
<td>Door-to-door survey of this subproject</td>
<td>Shangbu Town</td>
<td>SA Team 2 of Hohai University, village committee, local residents, water supply company</td>
<td>Learning the water use pattern of local residents, and their expectations for, comments and suggestions on the new waterworks</td>
</tr>
<tr>
<td>Mar. 5, 2012</td>
<td>FGD on Ganxian subproject</td>
<td>Meiyuan Hotel</td>
<td>SA Team of Hohai University, Ganxian PMO, traffic bureau</td>
<td>Learning details of this subproject, including subproject area and implementation plan</td>
</tr>
<tr>
<td></td>
<td>Field visit Ganxian subproject</td>
<td>Project site</td>
<td>SA Team 1 of Hohai University, Ganxian County Traffic Bureau</td>
<td>Visiting the project site on site to learn about the surrounding area</td>
</tr>
<tr>
<td></td>
<td>Door-to-door survey of Ganxian subproject</td>
<td>Yiyuan Village, Datian Xiang</td>
<td>SA Team 1 of Hohai University, village committee, local residents, Ganxian County Traffic Bureau</td>
<td>Learning residents’ expectations for, comments and suggestions on the new road through door-to-door interview and questionnaire survey</td>
</tr>
<tr>
<td>Mar. 6, 2012</td>
<td>FGD on Jinxian subproject</td>
<td>Crown Hotel in Jinxian County</td>
<td>SA Team of Hohai University, Jinxian PMO</td>
<td>Learning local socioeconomic conditions and the implementing agency of this subproject</td>
</tr>
<tr>
<td>Mar. 7, 2012</td>
<td>FGD on Jinxian subproject</td>
<td>Jinxian County State-owned Assets</td>
<td>SA Team of Hohai University, Jinxian PMO, county State-owned Assets investment company,</td>
<td>Learning details of this subproject, including subproject area and implementation plan</td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td>Location</td>
<td>Participants</td>
<td>Details</td>
</tr>
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</tr>
<tr>
<td></td>
<td>Field visit on Jinxian subproject</td>
<td>Investment Co., Ltd.</td>
<td>feasibility study report preparation agency</td>
<td>Learning how the dike, irrigation and drainage facilities, and surrounding land are used, and evaluating possible impacts of this subproject</td>
</tr>
<tr>
<td></td>
<td>Door-to-door survey of Jinxian subproject</td>
<td>State-owned fish farms around Qinglan Lake</td>
<td>SA Team of Hohai University, Jinxian PMO, county State-owned Assets investment company, feasibility study report preparation agency</td>
<td>Learning residents’ expectations for, comments and suggestions on this subproject through door-to-door interview and questionnaire survey</td>
</tr>
<tr>
<td>Mar. 8,</td>
<td>Field visit and FGD on Gongqingcheng Bus Terminal Project</td>
<td>Project site</td>
<td>SA Team of Hohai University, Gongqingcheng PMO, affected township governments, village committee</td>
<td>Learning details of this subproject, including subproject area and implementation plan</td>
</tr>
<tr>
<td>2012</td>
<td>Field visit on Gongqingcheng Bus Terminal Project</td>
<td>Project site, Jiujiang Coach Transport Group (Gongqingcheng Coach Station)</td>
<td>SA Team 1 of Hohai University, Gongqingcheng PMO</td>
<td>Visiting the project site on site to learn about the surrounding area and the operation of the Gongqingcheng Coach Station</td>
</tr>
<tr>
<td></td>
<td>Door-to-door survey of Gongqingcheng Bus Terminal Project</td>
<td>Affected townships, urban area of Gongqingcheng City</td>
<td>SA Team 1 of Hohai University, Gongqingcheng PMO, local residents, Taxi drivers</td>
<td>Learning residents’ expectations for, comments and suggestions on this subproject through door-to-door interview and questionnaire survey</td>
</tr>
<tr>
<td>Mar. 9,</td>
<td>Field visit on Gongqingcheng Waterworks Project</td>
<td>Project site, water source</td>
<td>SA Team 2 of Hohai University, Gongqingcheng PMO</td>
<td>Visiting the project site on site to learn about the surrounding area, with focus on the water source</td>
</tr>
<tr>
<td>2012</td>
<td>Field visit on Gongqingcheng Waterworks Project</td>
<td>Gongqingcheng Daodao Water Company</td>
<td>SA Team 2 of Hohai University, Gongqingcheng PMO, Daodao Water Company</td>
<td>Learning the water supply and treatment capacity of the existing water supply company, and the water intake</td>
</tr>
<tr>
<td></td>
<td>Door-to-door survey of Gongqingcheng Waterworks Project</td>
<td>Townships in proposed water supply range</td>
<td>SA Team 2 of Hohai University, Gongqingcheng PMO</td>
<td>Learning the water use pattern of local residents, and their expectations for, comments and suggestions on the new waterworks</td>
</tr>
</tbody>
</table>
3 Road Construction and Improvement Subprojects

3.1 Overview

It is necessary to construct the road construction and improvement subprojects, because existing traffic conditions need improvement, do not meet residents’ need and are insufficient to support local future development. The road construction and improvement subprojects are significant for the development of the project area, including:

(1) Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project
The main line starts from Tianbao South Road and ends at Farm Road, with a full length of 1.464km, 40m roadbed width, 30m lane width. This subproject is required to be constructed Yuanming Bridge, connecting the south and north parts of the town, 156m long and 25.5m clear deck wide. The direct beneficiary area of this subproject the east and south parts of the Yifeng county town; other parts of the county town will also benefit.

(2) Luxi County Yuanhe River East Urban Road Network Improvement Project
This subproject is located in the east of the Luxi county town, east of the Yuanhe River, between Renmin Central Road and Rijiang West Road, being a class III secondary trunk road, with a full length of 2,284m, 24m red line width. The direct beneficiary area of this subproject is the east of Luxi county town; it will also improve the traffic on both sides of the Yuanhe River in the whole Luxi county town, and between the Luxi county town and the outside.

(3) Yiyuan Avenue Urban Road Network Improvement Project
The project can be divided into three sections: 1) urban trunk road section, beginning with the proposed Moon Bay Avenue, connecting the Ganchang highway, total length 2.03km, width divided into 28m and 30m two, with two directions and 4 lanes; 2) secondary trunk road, 2.66km long, 24m wide, with two directions and 4 lanes; 3) The Ganchang upgrading rode, 1.78km long, 12m wide, beginning with Meilin bridgehead, connecting the end of the Moon Bay Avenue. The beneficiary area of this subproject is the Yiyuan area, Datian Xiang, Changluo Xiang and Dabu Xiang in southern Ganxian County, and the Ganxian county town.

(4) Qongqingcheng Wusi-Junshan Avenue Project
This subproject is located between Yu Villages and Jiangyi Towns, and runs through Honglin, Aiguo, Yuejin and Hetang Villages, being a class II secondary trunk road, 8.08km long and 24m wide, with two directions and 4 lanes, and concrete pavement. It will become an important passage between the urban area of Gongqingcheng City and Jiangyi Town.

(5) Qongqingcheng – Sujiadang Xiang Highway Project
This subproject starts from Boyang River Bridge, to the northeast by Qianjiadun, Yechacha villages, continued north through Qingshan Villages Louxialong villages, Dujialong, Yinjaiba New villages, Sujiadang Township Administration of Power Supply, Sujiadang Township Gerocoomium and eventually to Sujiadang Township Government, the total length of 7.915km, 12m roadbed width and concrete pavement. Construction bridge 1 seat, is 140m long, intermediate axle 1, 50m long, 12m clear width and culvert 2. The beneficiary area of this subproject is the urban area of Gongqingcheng City and Sujiadang Xiang.

(6) Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng
The starting point of the project is located in Gongan Road, route to the northeast by the Lonxiazhao, Jiangliu, Boyang River two Bridges, Zhiqing Tree Farm, Panjia, and continue north via Gaogaiqiao villages into Zequan Township. Route length is 8.054km, width 12m. The construction of the bridge 1, long 270m and a small bridge, 25m long, 12m deck width The beneficiary area of this subproject is the urban area of Gongqingcheng City, Jinhu Town and Zequan Xiang.

(7) Gongqingcheng Bus Terminal Project
The project is third-order station, with the main scale function of operation, parking and to construct the comprehensive maintenance field, the first end station and the corresponding operation management facilities. Comprehensive construction area is 7,540 m². Among them:
passenger terminal building area of about 4,000 m². Maintenance workshop building area of about 2,540 m². Complex building, construction area of about 1,000 m². The beneficiary area of this subproject is the urban area of Gongqingcheng City.

3.2 Primary Stakeholder Analysis

3.2.1 Identification of Stakeholders

Stakeholder analysis is to identify the Project’s impacts on them by identifying stakeholders and learning their needs in order to perform project decision-making and management more effectively. Stakeholders mean people and organizations interested directly or indirectly in the Project, and affecting the success of the Project directly or indirectly. Stakeholders are affected to varying degrees, and are therefore divided into primary and secondary stakeholders. Identifying primary stakeholders accurately can reflect the relationship between the project objectives and the affected groups more effectively. The primary stakeholders identified by the task force are as shown in Table 3-1.

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Positively affected persons</th>
<th>Negatively affected persons</th>
<th>Both positively and negatively affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>a. Yifeng County Construction Bureau b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>a. Residents affected by LA at project site b. Fixed live pig abattoir of Yifeng County</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>a. Luxi PMO b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>a. Residents affected by LA at project site b. Luxi County Water Supply Company</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Urban Road Network Improvement Project, in Yiyuan District, Ganxian County</td>
<td>a. Ganxian County Traffic Bureau b. Local residents c. The poor d. The elderly, weak, sick, disabled and young e. Residents in 3 southern Xiangs of Ganxian County</td>
<td>Residents affected by LA at project site</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Gongqingcheng Wusi-Junshan Avenue Project</td>
<td>a. Gongqingcheng PMO b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>Residents affected by LA at project site</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Gongqingcheng – Suijiadang Xiang Highway Project</td>
<td>a. Gongqingcheng PMO b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>Residents affected by LA at project site</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng</td>
<td>a. Gongqingcheng PMO b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>Residents affected by LA at project site</td>
<td>Nearby residents</td>
</tr>
<tr>
<td>Gongqingcheng Bus Terminal Project</td>
<td>a. Gongqingcheng PMO b. Local residents c. The poor d. The elderly, weak, sick, disabled and young</td>
<td>Vehicle repair shop a. Residents near bus terminal b. Taxi drivers</td>
<td></td>
</tr>
</tbody>
</table>
3.2.2 Needs of Stakeholders

Different stakeholders have different needs for the Project. Analyzing the primary stakeholders’ needs helps to identify the main social impacts of the Project, avoid potential social risks and promote the successful implementation of the Project. The task force has communicated all primary stakeholders in the project area and learned their different needs by means of questionnaire survey, interview, FGD and observation, as shown in Table 3-2.

Table 3-2 Summary of Needs of Stakeholders of the Road Construction and Improvement Subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main needs</th>
</tr>
</thead>
</table>
| **Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project** | Yifeng County Construction Bureau | a. Improving traffic facilities  
b. Improving traffic layout to suit future development |
|                                                                           | Local residents                  | Safe, convenient and unobstructed road                                      |
|                                                                           | The poor                         | Increasing income                                                            |
|                                                                           | The elderly, weak, sick, disabled and young | Safe, convenient and unobstructed road                                      |
|                                                                           | Residents affected by LA at project site | Receiving reasonable compensation                                           |
|                                                                           | Fixed live pig abattoir of Yifeng County | Selecting a new site, and providing convenient traffic to employees         |
|                                                                           | Nearby residents                 | a. Good traffic conditions  
b. Minimum traffic risks and noise                                                 |
| **Luxi County Yuanhe River East Urban Road Network Improvement Project**   | Luxi PMO                         | Ensuring project initiation and successful implementation                    |
|                                                                           | Local residents                  | Safe, convenient and unobstructed road                                      |
|                                                                           | The poor                         | Increasing income                                                            |
|                                                                           | The elderly, weak, sick, disabled and young | Safe, convenient and unobstructed road                                      |
|                                                                           | Residents affected by LA at project site | Receiving reasonable compensation                                           |
|                                                                           | Luxi County Water Supply Company | Selecting a new water intake                                                 |
|                                                                           | Nearby residents                 | a. Good traffic conditions  
b. Minimum traffic risks and noise                                                 |
| **Urban Road Network Improvement Project, Yiyuan District, Ganxian County** | Ganxian County Traffic Bureau    | a. Improving traffic facilities  
b. Improving traffic layout to suit future development |
|                                                                           | Local residents                  | Safe, convenient and unobstructed road                                      |
|                                                                           | The poor                         | Increasing income                                                            |
|                                                                           | The elderly, weak, sick, disabled and young | Safe, convenient and unobstructed road                                      |
|                                                                           | Residents affected by LA at project site | Receiving reasonable compensation                                           |
|                                                                           | Nearby residents                 | a. Good traffic conditions  
b. Minimum traffic risks and noise                                                 |
| **Qongqingcheng Wusi-Junshan Avenue Project, Qongqingcheng – Sujiaadang Xiang Highway Project, Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Qongqingcheng** | Gongqingcheng PMO               | Ensuring project initiation and successful implementation                    |
|                                                                           | Local residents                  | Safe, convenient and unobstructed road                                      |
|                                                                           | The poor                         | Increasing income                                                            |
|                                                                           | The elderly, weak, sick, disabled and young | Safe, convenient and unobstructed road                                      |
|                                                                           | Residents affected by LA at project site | Receiving reasonable compensation                                           |
|                                                                           | Nearby residents                 | a. Good traffic conditions  
b. Minimum traffic risks and noise                                                 |
| **Gongqingcheng Bus Terminal Project**                                    | Gongqingcheng PMO               | Ensuring project initiation and successful implementation                    |
|                                                                           | Local residents                  | Safe and convenient bus terminal                                             |
|                                                                           | The poor                         | Increasing income                                                            |
The elderly, weak, sick, disabled and young | Safe, convenient and unobstructed
Vehicle repair shop | Stable business
Residents near bus terminal | a. Good traffic conditions
| b. Minimum traffic risks and noise
Taxi drivers | a. Picking up passengers more conveniently
| b. Reduced competitiveness

### 3.2.3 Impacts of the Project on Stakeholders

#### 3.2.3.1 Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project

(1) Yifeng County Construction Bureau  
The Yifeng County Construction Bureau is an administrative department of the Luxi County Government, in charge of the county’s construction planning. The Yifeng County Construction Bureau is a beneficiary of the Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project because of the following:

1) Improving traffic facilities  
   There are 3 existing bridges near Yuanming Bridge: Park Bridge on the west, Farm Bridge in the site and Lianglukou Bridge downstream.  
   Park Bridge (see Figure 3-1), built in 1991, connects a densely populated residential quarter on the north and Nanping Park on the south, with a bearing capacity of 2 tons and 3.6m wide. It was formerly designed as a pedestrian bridge and is unsuitable for the passage of heavy vehicles.

![Figure 3-1 Park Bridge; Figure 3-2 Farm Bridge](image)

   Farm Bridge (see Figure 3-2) is located 150m west of Yuanming Bridge, and connects the densely populated economic and trading center of Yifeng County on the north, and Taxia Farm and Qiantou Village on the south. Farm Bridge was identified as a dilapidated bridge several years ago (see Figure 3-3), and is unable to bear heavy vehicles, as shown in Figure 1-4.

![Figure 3-3 Farm Bridge](image)
Lianglukou Bridge is located 1,500m east of Yuanming Bridge, and was completed in 2011. It is good in quality but far away from the urban area.

After the connecting road is completed, it will become a main passage connecting the county town and the south part.

2) Improving traffic layout to suit future development

When completed, the connecting road will become the most convenient path between the Yifeng county town and National Highway 320, so that residents don’t have to round about.

In the 12th Five-year Plan of Yifeng County, the east part will become the green urban core, where the administrative center, trading and logistic center, public service center, and 3 high-class residential communities will be built. The south part will have Chengnan High School, a library, a gymnasium, a museum and a youth activity center, and become the cultural center of the county, and an integrated mart focused on building materials and a large residential area will be built here to accommodate 50,000 residents in 3.7 km². Thus, the traffic need between the east and south parts, and between the east and south parts, and other parts of the county will rise greatly. The connecting road will become an important road to cater for future development.

(2) Local residents

1) Meeting vehicles’ traffic demand

Residents in need of crossing the Yifeng River live mainly on both ends of Farm Bridge, and rely mainly on Park Bridge and Farm Bridge. Farm Bridge is already a dilapidated bridge unable to bear medium and heavy vehicles, while Park Bridge has a bearing capacity of 2 tons only. Therefore, heavy vehicles can only go through Lianglukou Bridge.

Many residents in the south part deal with transport, and would park their vehicles beside the north end of Farm Bridge for the sake of safety and convenience, resulting in road occupation and traffic jam (see Figure 3-5), and likely to give rise to traffic accidents. When this subproject is completed, these problems will be solved.

2) Meeting the daily traffic demand of residents in the south part

There are frequent personal and economic contacts between the south and north parts. Since most busy streets of Yifeng County are in the north part, residents in the south part would shop and dine in the north part, and most traffic facilities are in the north part. Farm Bridge is narrow and the roads on its both ends are also narrow (see Figure 3-6), resulting in frequent traffic jam and minor traffic accidents, especially on legal holidays. When completed, this subproject will meet the daily traffic demand of residents in the south part effectively.
3) Meeting office workers’ traffic demand
Residents in the south part mostly work north of the Yifeng River, and would cross Farm Bridge every day, especially residents in Taxia Farm. Taxia Farm was formerly a state-owned farm, but its workers have been laid off and are now making a living on themselves, so they have great traffic demand. When completed, this subproject will provide a safe and convenient passage to these workers.

4) Meeting residents’ traffic demand for leisure
Leisure is an integral part of life. Chongwen Tower (see Figure 3-7), the former residence of Tao Yuanming (see Figure 3-8) and Nanping Park are located south of the Yifeng River, between Farm Bridge and Park Bridge, and are main destinations of leisure for nearby residents. When completed, this subproject will provide a safe and convenient passage to people pursuing leisure.

5) Meeting students’ traffic demand
Taxia Kindergarten in Taxia Farm can meet the educational demand of preschool children. However, some parents have sent their children to the kindergarten in the north part in order to receive better education, and students have to go to schools in the north part from the primary school stage. Thus, a large number of primary and high school students are crossing Farm Bridge every day. Due to the narrow deck of Farm Bridge, students’ safety is threatened greatly. When completed, this subproject will provide a safe and convenient passage to students.

6) Meeting the residential demand of residents in the north part
Some residents in the north part have purchased housing in the south and would return to the south part every day. When completed, this subproject will provide a safe and convenient passage to them.
(3) The poor
This subproject will provide job opportunities to the poor to increase income, improve living conditions and relieve the stress of poverty.

(4) The elderly, weak, sick, disabled and young
Compared to normal people, the elderly, weak, sick, disabled and young need better traffic conditions. This subproject offers safe and convenient traffic conditions that meet their need and improve their quality of life.

(5) Residents affected by LA at project site
The greatest impact of this subproject on the residents affected by LA is land acquisition, so that their livelihoods and living standard may be adversely affected.

(6) Fixed live pig abattoir of Yifeng County
1) The abattoir will be relocated to a suitable new site, and its operation will be affected during relocation.
2) Due to relocation, the workers of the abattoir have to take new paths and may be inconvenienced.

(7) Nearby residents
1) Nearby residents will become directly beneficiaries of this subproject and get convenient traffic conditions;
2) Due to the vicinity to the road, high traffic volume may result in more traffic accidents and vehicle hornin will produce noise.

3.2.3.2 Luxi County Yuanhe River East Urban Road Network Improvement Project

(1) Luxi PMO
Whether this subproject is successful will affect the PMO greatly. If successful, this subproject will be an important achievement of the PMO, and lay a foundation for applying for similar projects in the future. However, this subproject is also a great challenge for the PMO.

(2) Local residents
1) Meeting the northward traffic demand of residents in the south part
High school students east of the Yuanhe River are educated in the east part, resulting in great traffic demand, especially at the beginning of a semester, when students and parents go to and return from schools together. Moreover, students and vehicles pass through narrow village highways in parallel, resulting in potential risks.
Many residents south of the Yuanhe River work in the east part, and would travel between the east and south parts, which imposes high requirements on road conditions. Since the roads on the east are in poor condition, many people have to go to the east part via Zonglian New Bridge on the west, thereby further increasing the traffic volume of Zonglian New Bridge and the west part. Residents in the south part often have to shop, see a doctor and handle affairs in the east part, resulting in a great traffic volume.
Many farmers in the south part produce farm and sideline products, and would sell their products at Yangtian Farm Product Bazaar east of Zonglian New Bridge. The existing road is adverse to the passage of vehicles. When completed, this subproject will provide a safe and convenient road to farmers in the south.
2) Meeting the traffic demand among the villages near the subproject area
There are frequent economic and social contacts among the nearby villages, especially among Shanxia, Gengtian and Gaolou Villages, but the existing cement roads are obviously insufficient to meet villagers’ traffic demand.
In Gengtian Village, there is also great demand for social intercourse between the east and west parts, but the existing roads are not sound enough, and through roads are not available somewhere. Some villagers would walk along canals and cross water surfaces via rafts for the sake of convenience. This is an unsafe practice, especially for children.
When completed, this subproject will provide a safe and convenient road for the social intercourse of nearby residents.
3) Meeting the traffic demand of residents in the east part
Residents in the east part go to the area west of the river through Zonglian New Bridge mainly. As the center of the old town, the area near Zonglian New Bridge is densely populated,
with Yangtian Farm Product Bazaar located on the east and the religious center on the west, so Zonglian New Bridge is very crowded. Only Dongzhou New Bridge is suitable for diverting part of its traffic, but the roads between the east part and Dongzhou New Bridge make it impossible to transfer traffic to Dongzhou New Bridge effectively. When this subproject is completed, it will mitigate the traffic pressure on Zonglian New Bridge by diverting part of traffic, create safer traffic conditions and a harmonious living environment for residents in the east part. This effect will be more significant in days when religious activities are held.

(3) The poor
This subproject will provide job opportunities to the poor to increase income, improve living conditions and relieve the stress of poverty.

(4) The elderly, weak, sick, disabled and young
Compared to normal people, the elderly, weak, sick, disabled and young need better traffic conditions. This subproject offers safe and convenient traffic conditions that meet their need and improve their quality of life.

(5) Residents affected by LA at project site
The greatest impact of this subproject on the residents affected by LA is land acquisition, so that their livelihoods and living standard may be adversely affected.

(6) Luxi County Water Supply Company
Luxi County Water Supply Company is a public welfare enterprise affiliated to the county housing construction bureau. This subproject will acquire land around its water intake and force it to choose a new water intake.

(7) Nearby residents
1) Nearby residents will become directly beneficiaries of this subproject and get convenient traffic conditions;
2) Due to the vicinity to the road, high traffic volume may result in more traffic accidents and vehicle honing will produce noise.
3) Land east of the Yuanhe River is mostly irrigated with water taken from the Yuanhe River, and this subproject will impede water supply and affect irrigation.

3.2.3.3 Ganxian Yiyuan Urban Road Network Improvement Project

(1) Ganxian County Traffic Bureau
1) Improving traffic facilities
The Yiyuan area in Maodian Town is located in the east of the Ganxian county town, beside the Gongjiang River. To go to Maodian Town or the Ganxian county town from the Yiyuan area, one has to cross the Gongjiang River. Before 2001, the only means of crossing the Gongjiang River was ferryboats, when there was a ferry in Yiyuan Village and on the opposite bank respectively, as shown in Figure 3-9. For the sake of safety, ferryboats ran in the daytime only, restricting the traffic of residents on both sides of the Gongjiang River greatly. With the administrative area of Ganxian County, residents in Datian, Changhuo and Dabu Xiangs further north of Yiyuan Village have to go a long way to reach the opposite bank of the Gongjiang River.

Figure 3-9 Ferry in Yiyuan Village

For the convenience of traffic, Meilin Bridge was built south of the Yiyuan Village in
2001, 15m wide, with 1.5m wide sidewalks, as shown in Figure 3-10. After the completion of Meilin Bridge, the Yiyuan Village ferry was abandoned. Meilin Bridge has improved traffic greatly but there are still many inconvenient points for Meilin Bridge: 1) The Ganchang Highway connecting Yiyuan Village, the 3 Xiangs and Meilin Bridge is seriously damaged and zigzag; 2) Meilin Bridge was funded by individuals, so a toll station has been set up on the west side of the bridge. Except pedestrians, bicycles and motorcycles, tolls are imposed on other vehicles, at lease 5 yuan per vehicle-time. This investment payback mode has undoubtedly increased the financial burden of local residents, and become a key restraint on the traffic and development of the areas on both sides.

![Figure 3-10 Meilin Bridge](image)

In 2010, Yiyuan Bridge was built south of Yiyuan Village, 15m wide, with 1.5m wide sidewalks, and Yiyuan Avenue was built east of the bridge. Currently, all residents in Yiyuan Village and the 3 Xiangs cross the Gongjiang River via Yiyuan Bridge, which is in good condition.

To cross Yiyuan Bridge, one has to pass through Yiyuan Village. The fully enclosed Ganda Expressway runs through Yiyuan Village from northeast to southwest, and one has to pass through an interchange in Yiyuan Village in order to cross this expressway, as shown in Figure 3-11. This interchange is the traffic gateway on both sides of the expressway. To support the construction of the expressway, a circuit for connection to the expressway has to be constructed in Yiyuan Village, but this circuit will block the interchange, as shown in Figure 3-12. This results in two adverse impacts: 1) The road leading to Yiyuan Bridge and Yiyuan Avenue is isolated, so that Yiyuan Bridge and Yiyuan Avenue have to be abandoned; 2) Residents on both sides of the Gongjiang River can reach Meilin Bridge via another distant interchange. When this subproject is completed, Yiyuan Bridge and Yiyuan Avenue will function effectively, and provide safe and convenient traffic facilities.

![Figure 3-11 Ganda Expressway Interchange; Figure 3-12 Construction beside Ganda Expressway Interchange](image)

2) Improving traffic layout to suit future development

The Yiyuan area is part of the new urbanization project of Ganxian County, bordering Datian Xiang on the east, Shahe Town in Zhanggong District on the south, and the Gongjiang
River on the west and north, with a planned area of 14.08 km², planned as an integrated zone for ecological residence, commerce, office, international conference and exhibition, entertainment, sports, education and scientific research. When completed, this subproject will meet the higher traffic demand of future planning.

(2) Local residents
This subproject can meet the traffic demand of residents. Since the interchange of the Ganda Expressway is blocked, the passage leading to Yiyuan Avenue and Yiyuan Bridge will be blocked, and traffic will be restricted greatly. When completed, Moon Bay Avenue may reconnect Yiyuan Village and the 3 neighboring Xiangs to the Ganxian county town.

(3) The poor
This subproject will provide job opportunities to the poor to increase income, improve living conditions and relieve the stress of poverty.

(4) The elderly, weak, sick, disabled and young
Compared to normal people, the elderly, weak, sick, disabled and young need better traffic conditions. This subproject offers safe and convenient traffic conditions that meet their need and improve their quality of life.

(5) Residents in 3 southern Xiangs of Ganxian County
Due to inconvenient traffic, the social and economic development of Datian, Changluo and Dabu Xiangs in southern Ganxian County is affected greatly. For example, due to inconvenient traffic, there is almost no industry in Datian Xiang, and all 16,500 residents here deal with agriculture mainly and are low in income. It is because of the absence of industrial pollution that Datian Xiang has a beautiful natural environment. Both the Ganxian County Government and the Datian Xiang Government plan to develop tourism in the future, but traffic may restricted the access of visitors. Therefore, Moon Bay Avenue will meet the development demand the 3 Xiangs in the south.

(6) Residents affected by LA at project site
The greatest impact of this subproject on the residents affected by LA is land acquisition, so that their livelihoods and living standard may be adversely affected.

(7) Nearby residents
1) Nearby residents will become directly beneficiaries of this subproject and get convenient traffic conditions;
2) Due to the vicinity to the road, high traffic volume may result in more traffic accidents and vehicle horn may produce noise.

3.2.3.4 Gongqingcheng Road Construction Project

(1) Gongqingcheng PMO
Whether this subproject is successful will affect the PMO greatly. If successful, this subproject will be an important achievement of the PMO, and lay a foundation for applying for similar projects in the future. However, this subproject is also a great challenge for the PMO.

(2) Local residents
1) Gongqingcheng Wusi-Junshan Avenue Project
The existing road is built along residences and cannot meet the increasing traffic volume. Honglin, Aiguo, Yuejin and Hetang Villages, Hengfeng Cultivation Farm with 15,000 persons and an area of 70-80 km², and Junshan Company with 5,000-6,000 persons are located beside this road. When completed, this subproject will meet the traffic demand of residents and nearby workers effectively.

2) Gongqingcheng – Sujiadang Xiang Highway Project
The existing road runs through the village residents. Except those doing farm work, about 3,000 persons work in Gongqingcheng City, dealing with apparel making and building. Sujiadang Xiang has a population of about 30,000, in which about 7,000 persons work in the urban area of Gongqingcheng City. This highway is the main passage for them to go to and off work, and there are 3,000 motorcycle runs a day. Due to the poor condition, this highway is very difficult for vehicles to pass. When completed, this subproject will meet the traffic demand of residents effectively.

3) Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in
Gongqingcheng

Zequan Xiang has a population of nearly 16,000, in which about 5,000 work in Gongqingcheng City. Many residents in Zequan Xiang have started up businesses in Gongqingcheng City. When completed, this subproject will meet the traffic demand of those traveling between Gongqingcheng City and Zequan Xiang.

(3) The poor
This subproject will provide job opportunities to the poor to increase income, improve living conditions and relieve the stress of poverty.

(4) The elderly, weak, sick, disabled and young
Compared to normal people, the elderly, weak, sick, disabled and young need better traffic conditions. This subproject offers safe and convenient traffic conditions that meet their need and improve their quality of life.

(5) Residents affected by LA at project site
The greatest impact of this subproject on the residents affected by LA is land acquisition, so that their livelihoods and living standard may be adversely affected.

(6) Nearby residents
1) Nearby residents will become directly beneficiaries of this subproject and get convenient traffic conditions;
2) Due to the vicinity to the road, high traffic volume may result in more traffic accidents and vehicle horn will produce noise.

3.2.3.5 Gongqingcheng Bus Terminal Project

(1) Gongqingcheng PMO
Whether the subproject is successful will affect the PMO greatly. If successful, the subproject will be an important achievement of the PMO, and lay a foundation for applying for similar projects in the future. However, the subproject is also a great challenge for the PMO.

(2) Local residents
Since buses are rare here, many residents take a taxi when going out, so that traffic is inconvenient and expensive. When completed, this subproject will meet the daily traffic demand of local residents effectively.

(3) The poor
This subproject will provide job opportunities to the poor to increase income, improve living conditions and relieve the stress of poverty.

(4) The elderly, weak, sick, disabled and young
Compared to normal people, the elderly, weak, sick, disabled and young need better traffic conditions. This subproject offers safe and convenient traffic conditions that meet their need and improve their quality of life.

(5) Vehicle repair shop
The Gongqingcheng Coach Station has no vehicle maintenance function itself, which is done by an external vehicle repair shop. This business cooperation will be broken due to the relocation of the coach station and the availability of its own vehicle maintenance function, thereby possibly affecting the income of the vehicle repair shop.

(6) Residents near bus terminal
1) Residents near bus terminal will become directly beneficiaries of this subproject and get convenient traffic conditions;
2) Due to the vicinity to the bus terminal, high traffic volume may result in more traffic accidents and vehicle horn will produce noise.

(7) Taxi drivers
1) Picking up passengers more conveniently
Since the new bus terminal is close to the railway station and the expressway exit, taxi drivers can go to and from the urban area of Gongqingcheng City more conveniently, and increase their income.
2) Reduced competitiveness
After the completion of the new bus terminal, the number of buses will be increased and the routing will be more rational, which may make taxies less competitive and reduce taxi
In sum, these subprojects will affect the primary stakeholders in many ways. Defining such impacts is important for improving project management, as summarized in Table 3-3.

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main impacts</th>
</tr>
</thead>
</table>
| Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project | Yifeng County Construction Bureau | a. Improved traffic facilities  
b. Improved traffic layout for future development |
|                                                                            | Local residents            | Obtaining a safe, convenient road                            |
|                                                                            | The poor                   | Increased income                                              |
|                                                                            | The elderly, weak, sick, disabled and young | Obtaining a safe, convenient and unobstructed road |
|                            Residents affected by LA at project site               |                             |                                                              |
|                                                                            | Fixed live pig abattoir of Yifeng County | a. Relocation  
b. Affecting commutation of employees |
|                                                                            | Nearby residents           | a. Good traffic conditions  
b. More traffic risks and noise |
| Luxi County Yuanhe River East Urban Road Network Improvement Project      | Luxi PMO                   | a. Bringing opportunities of performance improvement  
b. Greater working pressure |
|                                                                            | Local residents            | a. Obtaining a safe, convenient road  
b. Affecting irrigation facilities  
c. Possibly affecting religious belief |
|                                                                            | The poor                   | Increased income                                              |
|                                                                            | The elderly, weak, sick, disabled and young | Obtaining a safe, convenient and unobstructed road |
|                            Residents affected by LA at project site               |                             |                                                              |
|                                                                            | Luxi County Water Supply Company | Changing the water intake                                    |
|                                                                            | Nearby residents           | a. Good traffic conditions  
b. More traffic risks and noise |
| Ganxian County Yiuyuan Urban Road Network Improvement Project,            | Ganxian County Traffic Bureau | a. Improved traffic facilities  
b. Improved traffic layout for future development |
|                                                                            | Local residents            | Obtaining a safe, convenient road                            |
|                                                                            | The poor                   | Increased income                                              |
|                                                                            | The elderly, weak, sick, disabled and young | Obtaining a safe, convenient and unobstructed road |
|                            Residents affected by LA at project site               |                             |                                                              |
|                                                                            | Residents in 3 southern Xiangs of Ganxian County | Obtaining better traffic and development conditions |
|                                                                            | Residents affected by LA at project site | AFFECTED LIVELIHOODS AND LIVING STANDARD DUE TO LA |
|                                                                            | Nearby residents           | a. Good traffic conditions  
b. More traffic risks and noise |
| Qongqingcheng Wusi-Junshan Avenue Project, Qongqingcheng – Suijia Xiang Highway Project, Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Qongqingcheng | Qongqingcheng PMO         | a. Bringing opportunities of performance improvement  
b. Greater working pressure |
|                                                                            | Local residents            | Obtaining a safe, convenient road                            |
|                                                                            | The poor                   | Increased income                                              |
|                                                                            | The elderly, weak, sick, disabled and young | Obtaining a safe, convenient and unobstructed road |
|                            Residents affected by LA at project site               |                             |                                                              |
|                                                                            | Nearby residents           | a. Good traffic conditions  
b. More traffic risks and noise |
| Qongqingcheng Bus Terminal Project                                         | Qongqingcheng PMO         | a. Bringing opportunities of performance improvement  
b. Greater working pressure |
|                                                                            | Local residents            | Obtaining safe, convenient traffic                           |
|                                                                            | The poor                   | Increased income                                              |
### 3.2.4 Impacts of Stakeholders on the Project

Project implementation is a process of interaction with stakeholders. When the Project affects stakeholders, stakeholders also affect the Project. The project design can be optimized by learning stakeholders’ needs, thereby removing manmade obstacles to project implementation. See Table 3-4.

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>Yifeng County Construction Bureau</td>
<td>Implementing agency, responsible for project planning and implementation</td>
</tr>
<tr>
<td></td>
<td>Local residents</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>The elderly, weak, sick, disabled and young</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA at project site</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>Fixed live pig abattoir of Yifeng County</td>
<td>In conflict with project benefits; its cooperation will determine project progress</td>
</tr>
<tr>
<td></td>
<td>Nearby residents</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>Luxi PMO</td>
<td>Implementing agency, responsible for project planning and implementation</td>
</tr>
<tr>
<td></td>
<td>Local residents</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>The elderly, weak, sick, disabled and young</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA at project site</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td></td>
<td>Luxi County Water Supply Company</td>
<td>In conflict with project benefits; its cooperation will determine project progress</td>
</tr>
<tr>
<td></td>
<td>Nearby residents</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>Ganzhixian County Yiyuan Urban Road Network Improvement Project</td>
<td>Ganzhixian County Traffic Bureau</td>
<td>Implementing agency, responsible for project planning and implementation</td>
</tr>
<tr>
<td></td>
<td>Local residents</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>The poor</td>
<td>Strongly supportive</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>The elderly, weak, sick, disabled and young</td>
<td>Strongly supportive</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>Residents in 3 southern Xiangs of Ganxian County</td>
<td>Strongly supportive</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>Residents affected by LA at project site</td>
<td>Supportive, but worried about compensation</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
<tr>
<td>Nearby residents</td>
<td>Supportive, but worried about traffic safety and noise</td>
<td>Target group, having a direct voice on project benefits</td>
</tr>
</tbody>
</table>

**Qongqingcheng Wusi-Junshan Avenue Project, Qongqingcheng-Sujiadang Xiang Highway Project, Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng**

| Gongqingcheng PMO | Strongly supportive | Implementing agency, responsible for project planning and implementation | Major |
| Local residents | Strongly supportive | Target group, having a direct voice on project benefits | Major |
| The poor | Strongly supportive | Target group, having a direct voice on project benefits | Minor |
| The elderly, weak, sick, disabled and young | Strongly supportive | Target group, having a direct voice on project benefits | Minor |
| Residents affected by LA at project site | Supportive, but worried about compensation | Target group, having a direct voice on project benefits | Minor |
| Nearby residents | Supportive, but worried about traffic safety and noise | Target group, having a direct voice on project benefits | Minor |

**Gongqingcheng Bus Terminal Project**

| Gongqingcheng PMO | Strongly supportive | Implementing agency, responsible for project planning and implementation | Major |
| Local residents | Strongly supportive | Target group, having a direct voice on project benefits | Major |
| The poor | Strongly supportive | Target group, having a direct voice on project benefits | Minor |
| The elderly, weak, sick, disabled and young | Strongly supportive | Target group, having a direct voice on project benefits | Minor |
| Vehicle repair shop | Supportive, but worried about stable customer source and revenue | In conflict with project benefits; its cooperation will determine project progress | Minor |
| Residents near bus terminal | Supportive, but worried about traffic safety and noise | Target group, having a direct voice on project benefits | Minor |
| Taxi drivers | Strongly supportive | Target group, having a direct voice on project benefits | Minor |

### 3.3 Public Participation

In order to build the road construction and improvement subprojects on a reliable basis, protect the lawful rights and interests of local residents, reduce grievances and disputes, improve the Resettlement Action Plan, and give full play to the benefits of these subprojects, it is very important to conduct public participation and consultation at the preparation and implementation stages.

#### 3.3.1 Participation of Residents

The task force conducted a survey on the participation of local residents, and found that their awareness of the Project was low. However, since the concept of “constructing roads is a prerequisite to becoming rich” is deeply rooted there, local residents generally think that road and bridge construction is good for economic development, so they support these subprojects strongly. Despite of LA and HD, local residents believe that they will receive reasonable compensation, and the benefits of these subprojects are outweigh the LA and HD impacts greatly in the long run. It has also been found that most residents would express their
complaints about the Project through village/community committees, and think that this is an effective way of participating in the Project. See Table 3-5.

Table 3-5 Survey on Participation of Affected Residents in the Project (unit: %)

| Subproject                                                      | Awareness | Level of support | Expression of opinions |
|                                                               | Percent of awareness | Percent of first-time awareness | Percent of support | Percent of neither, nor | Through village committee | By other means | No opinion |
| Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project | 67.6       | 8.1               | 94.6               | 5.4                 | 67.6                        | 16.2          | 16.2       |
| Luxi County Yuanhe River East Urban Road Network Improvement Project | 66.6       | 11.1              | 91.7               | 8.3                 | 66.7                        | 19.4          | 13.9       |
| Ganxian County Yiyuan Urban Road Network Improvement Project     | 68.4       | 10.5              | 92.1               | 7.9                 | 71.1                        | 15.8          | 13.2       |
| Qongqingcheng Wusi-Junshan Avenue Project                      | 62.2       | 13.5              | 91.9               | 8.1                 | 64.9                        | 21.6          | 13.5       |
| Qongqingcheng – Sujiadang Xiang Highway Project                | 69.4       | 8.3               | 91.7               | 8.3                 | 75                          | 13.9          | 11.1       |
| Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng | 65.8       | 13.2              | 92.1               | 7.9                 | 71.1                        | 13.2          | 15.8       |
| Gongqingcheng Bus Terminal Project                             | 73         | 10.8              | 94.6               | 5.4                 | 70.3                        | 13.5          | 16.2       |

In order that the affected persons and the local governments are fully aware of the Project and the Resettlement Action Plan, it is advised to communicate the state laws and regulations on compensation, and the World Bank’s policy on involuntary resettlement through public participation (in such forms as FGD) or local media (e.g., TV) from the commencement of construction to completion of the Project, so that local residents exactly know the physical impacts, compensation rates, resettlement measures, disbursement and use of compensation fees and subsidies, entitlements and preferential policies, etc. Relevant resettlement information will also be disclosed to local residents. These measures are intended to increase the transparency of the resettlement work and win their support for resettlement.

In addition, since local residents trust community/village committees, project and implementation information may be communicated to local residents through community/village committees in order to settle disputes and make them an important means for project participation and opinion expression.

3.3.2 Participation of Women

During project implementation, particular attention should be paid to the protection of the rights and interests of women as a vulnerable group. In particular, since the project area is economically undeveloped, many men work outside and many women stay in the project area, so the protection of their rights and interests is particularly important.

The task force surveyed the participation of local women in the Project, and found that their awareness of the Project was not high, too. However, they support these subprojects at a very high level, and generally think that the construction of traffic facilities is good to economic development, the protection of their own rights and interests, and the improvement of their livelihoods. They believe that despite of LA and HD, their lawful rights and interests will be protected practically, and they will receive reasonable compensation. It has also been found that local women also trust community/village committees, and think that village/community committees are an effective means for opinion expression. See Table 3-6.

Table 3-6 Survey on Participation of Affected Women in the Project (unit: %)

| Subproject                                                      | Awareness | Level of support | Expression of opinions |
|                                                               | Percent of awareness | Percent of first-time awareness | Percent of support | Percent of neither, nor | Through village committee | By other means | No opinion |
| Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project | 67.6       | 8.1               | 94.6               | 5.4                 | 67.6                        | 16.2          | 16.2       |
| Luxi County Yuanhe River East Urban Road Network Improvement Project | 66.6       | 11.1              | 91.7               | 8.3                 | 66.7                        | 19.4          | 13.9       |
| Ganxian County Yiyuan Urban Road Network Improvement Project     | 68.4       | 10.5              | 92.1               | 7.9                 | 71.1                        | 15.8          | 13.2       |
| Qongqingcheng Wusi-Junshan Avenue Project                      | 62.2       | 13.5              | 91.9               | 8.1                 | 64.9                        | 21.6          | 13.5       |
| Qongqingcheng – Sujiadang Xiang Highway Project                | 69.4       | 8.3               | 91.7               | 8.3                 | 75                          | 13.9          | 11.1       |
| Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng | 65.8       | 13.2              | 92.1               | 7.9                 | 71.1                        | 13.2          | 15.8       |
| Gongqingcheng Bus Terminal Project                             | 73         | 10.8              | 94.6               | 5.4                 | 70.3                        | 13.5          | 16.2       |
Except women’s participation in the Project, the task force also surveyed their concerns, including land, safety, children’s education and income. Since more women do farm work at home in the project area than men, they are more concerned about whether the amount of land will be reduced due to the Project, how reduced land will be compensated for, and in case of relocation, whether the same amount of land is available at the resettlement site. Women are also concerned about safety, especially when they are relocated to another community. However, it has been found that these concerns are temporarily only, and will disappear after displaced households are integrated into resettlement sites. Women are also concerned about children’s education, especially after relocation. Finally, women will lose their social networks and some income sources. Therefore, women’s employment and income restoration are also particularly important.

Aiming at the above concerns, the following measures may be taken:

1. Determine rational land compensation rates, and ensure that women affected by LA or HD receive an appropriate amount of land, and that their basic livelihoods are ensured;
2. Provide more opportunities of communicating with local residents to displaced households, so that they are integrated into resettlement sites as soon as possible;
3. Solve the children’s education problem for displaced households, and help them transfer to other schools as necessary;
4. Ensure that women have priority in agricultural and nonagricultural skills training, and place eligible women to suitable jobs as the case may be.

### 3.4 Social Impact Analysis

#### 3.4.1 Project Benefit Analysis

1. Promoting economic development
   Traffic infrastructure is a prerequisite to economic development, and transport cost is an important consideration for business development. In the locations of the road construction and improvement subprojects, outside employment is very prevalent. These subprojects will improve local traffic conditions and promote local economic development effectively.

2. Improving traffic layout
   Traffic facilities are public infrastructure and are not used by residents in a certain location only. Therefore, the significance of these subprojects can be understood more clearly only if they are examined in a greater traffic layout. These subprojects will improve traffic facilities and layout, balance traffic volume, and lay a foundation for future development.

3. Improving the level of public services
   There are large numbers of medical, educational and public administration facilities in the project area, and these subprojects will provide better public services to residents.

4. Improving quality of life
   These subprojects will facilitate residents’ traffic and shorten their traffic time, thereby improving their quality of life.
3.4.2 Negative Impacts of the Subprojects

(1) Permanent land occupation
Some land will be acquired permanently for these subprojects in addition to existing roads or stations. 75.41 mu of land will be acquired permanently for Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project. 110 mu of land will be acquired permanently for Luxi County Yuanhe River East Urban Road Network Improvement Project, 583.27 mu of collective land for the Yiyuan Urban Road Network Improvement Project Ganxian County, 410.98 mu of collective land for the Qongqingcheng Wusi-Junshan Avenue Project, 243.59 mu of collective land for the Qongqingcheng – Suijadang Xiang Highway Project, 245.05 mu of collective land for the Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng, and 48.88 mu of land for the Gongqingcheng Bus Terminal Project. Land is the income source of most farmers, and land acquisition will reduce the income of some farmers.

(2) Temporary land occupation
This subproject will cause temporary land occupation during construction, which will affect residents’ traffic, landscape and ground barrier-free facilities. However, such negative impact will be ended with the completion of construction.

(3) HD
Some subprojects involve HD. If those affected by HD are not resettled properly, they will be faced with the risk of loss of housing or reduced quality of life. After HD, they will have to wait for the completion of new housing at relatives’ homes or transition housing. Demolished houses must be compensated for reasonably, so that the displaced households can build equivalent or better houses without any additional financial burden.

(4) Impacts on enterprises
Some subprojects will affect enterprises. The fixed live pig abattoir of Yifeng County will be relocated for the Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project, the newly introduced enterprises near Qingshan Village will be affected by the Qongqingcheng – Suijadang Xiang Highway Project, and the Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng will occupy some land of Huanongluhuan Food Development Co., Ltd. These will affect enterprise operations and development.

(5) Impacts at the operating stage
During the operation of the subprojects, traffic authorities may need to arrange bus and coach routes, increase traffic dispatching facilities and staff, and adjust local traffic layout, and environmental authorities may add environmental sanitation facilities. These problems have to be solved at the operating stage, and may lead to risks if not handled properly.

(6) Other impacts
The project area is not a habitat of ethnic minorities, and the construction of the subprojects will not affect minority cultures. In addition, little cultural heritage protection is involved. The Chongwen Tower 150m west of the Yuanming Bridge – National Highway 320 Connecting Road is a key cultural relic under provincial protection. However, this subproject
will not affect the Chongwen Tower.

3.5 Social Risk Management

3.5.1 Identification of Social Risks

3.4.1.1 Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project

(1) Impacts on traffic layout
At the north end of the Yuanming Bridge – National Highway 320 Connecting Road, Tianbao South Road and Dongmen Road form crossroads. Since this place is the entrance of Yuanming Bridge and a residential quarter, where residents walk frequently, traffic jam and safety risks may arise.

When this subproject is completed, Dongmen Road north of the Yifeng River will certainly bear more traffic volume, and the traffic volume at the crossings connected to Dongmen Road, especially at the north end of Park Bridge, Farm Bridge and Lianglukou Bridge, will rise significantly. It is a challenge to ensure orderly traffic and traffic safety.

(2) Impacts on environmental sanitation
With the increase of traffic volume, a large amount of waste may appear on traffic lines and tail gas may affect the ambient environment.

(3) Possible risks in different options
Option 1: building the new bridge at Park Bridge
Nanping Park is located at the south end of Park Bridge and is an important leisure place for residents in the county town, and there is an east-west mountain range in this park. If Yuanming Bridge is built at Park Bridge, there are 4 disadvantages: 1) This will damage residents’ leisure places and environment; 2) Due to the mountain range of Nanping Park, construction costs will be high; 3) The residential area in South New District is too far away from the new bridge, so that it cannot be utilized effectively; 4) There are dense civil residences at the north end, and a great amount of HD will be involved.

Option 2: building a new bridge at Farm Bridge
Both ends of Farm Bridge are densely populated and the roads are narrow. If a new bridge is built at the existing site of Farm Bridge, there are two disadvantages: 1) Considerable HD is involved, affecting residents’ lives adversely; 2) Construction may damage the Chongwen Tower south of Farm Bridge, a key cultural relic under provincial protection.

Option 3: utilizing Lianglukou Bridge without building a new bridge
Since Lianglukou Bridge is far away from the residential area, if residents have to go through Lianglukou Bridge, there are 3 disadvantages: 1) They have to buy means of transportation and have a greater financial burden; 2) Their living habits and schedule will be altered; and 3) They have to spend more time on traffic.

Option 4: proposed subproject
This option involves the relocation of the fixed live pig abattoir of Yifeng County and some residents, and the occupation of some land, and is less risky.

3.4.1.2 Luxi County Yuanhe River East Urban Road Network Improvement Project

(1) Risk of affecting the water supply company’s water intake
The Yuanhe River is an important source of drinking water for the Luxi county town and nearby residents. The water intake of the water supply company in Gengtian Village, while Yuanhe East Road may result in the selection of a new water intake.

(2) Risk of affecting residents’ irrigation water supply
There is much farmland east of the Yuanhe River, where irrigation water is taken directly from the Yuanhe River for free. After the completion of Yuanhe East Road, it will be difficult for residents to take water from the Yuanhe River. Since local agricultural water consumption is high, ensuring agricultural water supply is a challenge for this subproject.

(3) Risk of affecting religious belief
As the picture shown, there is a land god temple (see Figure 3-13). Local residents believe in the Land God devoutly. This temple may be demolished for the new construction project. It is advised to minimize the impact on this temple to respect local customs.

![Image of Land God Temple](image)

Figure 3-13 Land God Temple

3.4.1.3 Ganxian County Yiyuan Urban Road Network Improvement Project

1) Risk of investment payback of Meilin Bridge
Meilin Bridge was funded by individuals, so a toll station has been set up on the west side of the bridge. Except pedestrians, bicycles and motorcycles, tolls are imposed on other vehicles, at least 5 yuan per vehicle-time. Moon Bay Avenue makes it more convenient for residents to go through Yiyuan Bridge, reducing the income on Meilin Bridge.

2) Risk of compensation for fishponds
There are 100-200 fish culture households in Yiyuan Village, with a total fishpond area of 100-200 mu. The nearest fishpond is just hundreds of meters away from the Gongjiang River. The compensation rate will be 40,000 yuan/mu, higher than the uniform rate of Jiangxi Province by 5,000 yuan/mu. Fishpond occupation in this subproject may affect these households’ income, and insufficient compensation may pose a risk.

3) Risk of compensation for farmland converted into woodland
During 2001-2002, 400-500 mu of farmland in Yiyuan Village was converted into woodland, and the government provided 150 kilograms of paddy rice per mu as a subsidy every year. The land acquired for this subproject should be compensated for at this rate, otherwise there may be a risk.

3.4.1.4 Gongqingcheng Road Construction Project

1) The Yuejin Dyke run through by this road is narrow, and its broadening costs will be high.

2) The Yuejin Dyke is attached with irrigation facilities, which may be affected by this subproject.

3) There is much farmland on both sides of the road, and improper drainage may result in farmland inundation, thereby affecting agricultural income.

4) Possible risks in different options
1) Qongqingcheng Wusi-Junshan Avenue Project
   Option 1: expansion based on existing road
   This option has the following risks: 1) This road is originally intended for the passage of villagers and is narrow; 2) There are many residential houses on both sides, involving considerable HD.

   Option 2: constructing Wusi-Junshan Avenue
   The risk of this option is much LA.

2) Qongqingcheng – Suijiafang Xiang Highway Project
   Option 1: expansion based on existing road
   This option has the following risks: 1) This road is originally intended for the passage of villagers and is narrow; 2) There are many residential houses on both sides, involving considerable HD.

   Option 2: the current design project
   If the road bypasses some residential, the HD and other risks will be much lower.

3) Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in
Gongqingcheng

There are two roads for going from Zequan Xiang to Jinhu Town, and both roads are 4m wide cement roads and almost equally long.

Option 1: passing through the Tushan Dyke

This dike narrow, and its broadening costs will be high.

Option 2: passing through the existing road beside the Jinhu Town Government

This option has the following risks: 1) The road is zigzag, and traffic accidents occur frequently at the forking point of the road in Tushan Village; 2) A large amount of HD is involved, especially in Lingshangyuan Natural Village in Guanyinqiao Village, where villagers are very afraid of HD because they were relocated here after the 1998 flood.

Option 3: re-siting

The road will be straightened on the basis of Option 2, involving two risks: 1) Shishan Bridge beside Shishan Village is bypassed, and two new bridges have to be built, 270m long and 25m long; 2) Huanongluluhan Food Development Co., Ltd. will be relocated, but the amount of HD is much less.

3.4.1.5 Gongqingcheng Bus Terminal Project

Possible risks in different options

Option 1: reconstruction on former site

This option has the following risks: 1) There is no room for expansion or even parking; 2) The terminal is disadvantaged located and too far away from other traffic facilities, such as the railway station, which is adverse to the overall traffic planning of Gongqingcheng City.

Option 2: re-siting

This option is less risky, mainly because: 1) Residents will adapt to the change of traffic routes over time; 2) The cooperative relationship with the existing vehicle repair shop will be broken.

3.5.2 Evasion of Social Risks

3.4.2.1 Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.

(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.

(3) It is advised to provide traffic signals and traffic police boxes to regulate vehicular traffic.

(4) Set up slow-down signs and crosswalks in residential areas to ensure the safety of residents, and control vehicle hornng to reduce traffic noise.

(5) Improve the public transit system by adjusting or adding bus routes so that the new system covers the Yuanming Bridge – National Highway 320 Connecting Road, thereby both meeting traffic demand and improving traffic safety.

(6) Construct traffic safety facilities to ensure the traffic safety of special groups, such as the elderly, high and primary school students. It is advised that in bridge construction, not only sidewalks, non-motorized vehicle lanes and motorized vehicle lanes should be separated, but also sidewalks should be isolated effectively by guardrails, etc.

(7) Improve environmental sanitation facilities, such as waste bins, and assign environmental sanitation workers to protect environmental hygiene. Strengthen environmental quality monitoring to avoid pollution.

(8) Option 4 can reduce HD substantially, save costs and reduce the impact on residents.
3.4.2.2 Luxi County Yuanhe River East Urban Road Network Improvement Project

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.

(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.

(3) Choose a water intake prudently to ensure the safety of drinking water.

(4) Find an alternative source of agricultural water accepted by local residents while constructing the road network, or reserve a path for residents to take water from the Yuanhe River.

(5) Minimize the impact on the land god temple, relocate it or otherwise dispose of it properly.

3.4.2.3 Yiyuan Avenue – Ganchang Highway Connecting Road Project in Yiyuan New District, Ganxian County

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.

(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.

(3) The government and the investor of Meilin Bridge will reach a mutually acceptable agreement to reduce the investor’s losses.

(4) An acceptable compensation program for fishponds, farmland converted into woodland and land acquisition will be developed.

(5) Option 2 can reduce HD substantially, save costs and reduce the impact on residents.

3.4.2.4 Gongqingcheng Road Construction Project

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.

(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.

(3) Consider farmland drainage and other irrigation facilities while constructing the road to ensure farmland irrigation and avoid inundation.

(4) Selection of the best option
   1) Option 2 can reduce HD substantially, save costs and reduce the impact on residents.
   2) Gongqingcheng – Sujiadang Xiang Highway: Option 2 has two advantages: 1) The road length of 15km and costs are reduced; its length can be further reduced if it bypasses Daqiao Village; 2) The amount of HD will be reduced greatly, thereby reducing HD costs greatly.
   3) Fenghuang Village, Jinhu Town – Zequan Xiang Highway: Option 3 has 3 advantages: 1) shortening length and reducing costs; 2) reducing the amount of HD, especially in Lingshangyuan Natural Village in Guanyinqiao Village, where villagers are very afraid of HD because they were relocated here after the 1998 flood; 3) straightening the road to reduce traffic accidents.

3.4.2.5 Gongqingcheng Bus Terminal Project

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.

(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.
(3) Strengthen publicity on new traffic routes and make planning in advance.
(4) Contact the former vehicle repair shop early so that it can take measures accordingly, or establish a new cooperative relationship for a win-win situation.
(5) Selection of the best option: Option 2 has 3 advantages: 1) meeting the demand for vehicle repair and parking; 2) setting up an integrated service zone at the terminal to meet passengers’ needs; and 3) improving traffic layout by connecting the bus terminal with the railway station and the expressway exit.

Table 3-7 Summary of Impacts, Risks and Measures of the Road Construction and Improvement Subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Impact</th>
<th>Affected persons</th>
<th>Risks</th>
<th>Evasion measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>Project management during construction and operation</td>
<td>Local residents</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA</td>
<td>Reducing income</td>
<td>Compensate and resettlement them rationally.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic volume</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td>Increasing traffic dispatching facilities and staff</td>
</tr>
<tr>
<td></td>
<td>Relocation of enterprises</td>
<td>Fixed live pig abattoir of Yifeng County</td>
<td>a. Relocation of the enterprise b. Affecting the commutation of employees</td>
<td>a. Selecting a suitable new site b. Increasing commuting buses or having employees reemployed</td>
</tr>
<tr>
<td></td>
<td>Relocation of residents</td>
<td>Local residents</td>
<td>Affecting livelihoods due to house reconstruction</td>
<td>a. Selecting the best option to reduce HD b. Making reasonable compensation and resettlement</td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>Project management during construction and operation</td>
<td>Local residents</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion b. Operating stage: bus rerouting, stress on environmental sanitation</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
</tr>
<tr>
<td></td>
<td>LA</td>
<td>Residents affected by LA</td>
<td>Reducing income</td>
<td>Compensate and resettlement them rationally.</td>
</tr>
<tr>
<td></td>
<td>Traffic volume</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td>Increasing traffic dispatching facilities and staff</td>
</tr>
<tr>
<td></td>
<td>Water supply</td>
<td>Luxi County Water Supply Company</td>
<td>Relocation of water intake</td>
<td>a. Looking for a suitable water intake b. Compensating the water supply company</td>
</tr>
<tr>
<td></td>
<td>religious belief</td>
<td>Local residents</td>
<td>Demolition of land god temple</td>
<td>Selecting an option accepted by local residents</td>
</tr>
<tr>
<td></td>
<td>Relocation of residents</td>
<td>Local residents</td>
<td>Affecting livelihoods due to house reconstruction</td>
<td>a. Selecting the best option to reduce HD b. Making reasonable compensation and resettlement</td>
</tr>
<tr>
<td>Yiyuan Urban Road Network Improvement Project Ganxian County</td>
<td>Project management during construction and operation</td>
<td>Local residents</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion b. Operating stage: bus rerouting, stress on environmental sanitation</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
</tr>
<tr>
<td></td>
<td>LA</td>
<td>Residents affected by LA</td>
<td>Reducing income</td>
<td>a. Compensate and resettlement them rationally. b. Developing a policy for fishponds and farmland converted into woodland separately</td>
</tr>
<tr>
<td>Project Management during Construction and Operation</td>
<td>Local Residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td>Making reasonable compensation and resettlement</td>
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<td>-----------------------------------------------------</td>
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<tr>
<td>Local Residents</td>
<td>Affecting livelihoods due to house reconstruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic volume</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relocation of residents</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion b. Operating stage: bus rerouting, stress on environmental sanitation</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local residents</td>
<td>Affecting livelihoods due to house reconstruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA Residents affected by LA</td>
<td>Reducing income</td>
<td>Compensate and resettlement them rationally.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic volume</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td>Increasing traffic dispatching facilities and staff</td>
<td></td>
</tr>
<tr>
<td>Relocation of residents</td>
<td>Local residents</td>
<td>Affecting livelihoods due to house reconstruction</td>
<td>a. Selecting the best option to reduce HD b. Making reasonable compensation and resettlement</td>
<td></td>
</tr>
<tr>
<td>Gongqingcheng Bus Terminal Project</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project management during construction and operation</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion b. Operating stage: bus rerouting, stress on environmental sanitation</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local residents</td>
<td>a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion b. Operating stage: bus rerouting, stress on environmental sanitation</td>
<td>a. Construction supervision and management; b. Operating supervision and management, developing a contingency plan, and handling problems timely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic volume</td>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td>Increasing traffic dispatching facilities and staff</td>
<td></td>
</tr>
<tr>
<td>Local residents</td>
<td>Reduced business and income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Businessmen Vehicle repair shop</td>
<td>High pressure of competition</td>
<td>a. Notifying it in advance so that it can make preparations b. Establishing a new cooperative relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local residents</td>
<td>Increased traffic volume, accidents and noise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Businessmen</td>
<td>High pressure of competition</td>
<td>Designing layout rationally and guiding them actively to find more passengers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4 Flood Protection and Drainage Subprojects

4.1 Overview

Due to its special climatic and geographic conditions, Jiangxi Province has been suffering floods for a long time. 6 candidate flood bank construction subprojects have been proposed for the Project, in which the task force conducted a survey on the Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project and the Luxi County Yuanhe River Flood Bank Ecological Management Project in order to provide a basis for project implementation.

4.1.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

In this subproject, 11 flood banks around Qinglan Lake with a total length of 14.25km will be constructed to form an enclosed flood protection system, a sound water logging prevention system will be established by arranging drainage stations rationally, the level of biodiversity protection will be improved, local social and economic development will be improved, and a highway around Qinglan Lake (enclosed) will be constructed to ensure orderly local traffic. This subproject will protect about 150,000 people and 28,000 mu of basic farmland around the Jinxian county town and the lake from floods.

4.1.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

This subproject includes the Yuanhe River channel from Dongzhou Bridge on National Highway 320 in the upper Yuanhe River in the Luxi county town to Shankouyan Bridge, with a planned channel length 9150m(both sides), a total bank length of 5.232km and a total basin area of 240 km². Through the high-standard improvement of the upper Yuanhe River in the Luxi county town, a complete flood protection system will be formed to ensure local flood safety, beautify the urban environment and provide reliable guarantee for the economic development of Luxi County. This subproject will protect over 20,000 permanent residents and over 10,000 mu of farmland east of the Yuanhe River from floods, and provide an additional protection area of 25 km², thereby protecting 153,000 people in and around the county town.

4.2 Primary Stakeholder Analysis

4.2.1 Identification of Stakeholders

Stakeholder analysis is to identify the Project’s impacts on them by identifying stakeholders and learning their needs in order to perform project decision-making and management more effectively. Stakeholders mean people and organizations interested directly or indirectly in the Project, and affecting the success of the Project directly or indirectly. Stakeholders are affected to varying degrees, and are therefore divided into primary and secondary stakeholders. Identifying primary stakeholders accurately can reflect the relationship between the project objectives and the affected groups more effectively. The primary stakeholders identified by the task force are as shown in Table 4-1.

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Positively affected persons</th>
<th>Negatively affected persons</th>
<th>Both positively and negatively affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project</td>
<td>Local residents</td>
<td>a. Residents affected by LA</td>
<td>a. Implementing agency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Cultivators</td>
<td>b. The poor</td>
</tr>
<tr>
<td>Luxi County Yuanhe</td>
<td>Local residents</td>
<td>a. Residents affected</td>
<td>c. Affected village committees</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d. Qinglan Lake Aquatic Farm</td>
</tr>
</tbody>
</table>
4.2.2 Needs of Stakeholders

Different stakeholders have different needs for the Project. Analyzing the primary stakeholders’ needs helps to identify the main social impacts of the Project, avoid potential social risks and promote the successful implementation of the Project. The task force has communicated all primary stakeholders in the project area and learned their different needs by means of questionnaire survey, interview, FGD and observation.

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jinxian County Qinglan Lake (Enclosed)</td>
<td>Implementing agency</td>
<td>Initiating this subproject successfully and commencing construction as soon as possible</td>
</tr>
<tr>
<td>Flood Control Construction Project</td>
<td>Local residents</td>
<td>a. Ensure quality in flood bank construction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Minimize the impact on local residents’ traffic during construction.</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA</td>
<td>a Minimizing LA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Conducting compensation and resettlement properly</td>
</tr>
<tr>
<td></td>
<td>Cultivators</td>
<td>Ensuring farmland irrigation during construction</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Reducing or exempting irrigation costs after this subproject is put into operation</td>
</tr>
<tr>
<td></td>
<td>Qinglan Lake Aquatic Farm</td>
<td>a. Preventing riverbed lifting from affecting fishing;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Avoiding disputes over ownership with villagers;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Making full compensation for occupied water surface</td>
</tr>
<tr>
<td></td>
<td>Affected village committees</td>
<td>Making related arrangements clearly and alleviating workload</td>
</tr>
<tr>
<td>Luxi County Yuanhe River Flood Bank</td>
<td>Implementing agency</td>
<td>Initiating this subproject successfully and commencing construction as soon as possible</td>
</tr>
<tr>
<td>Ecological Management Project</td>
<td>Local residents</td>
<td>a. Ensure quality in flood bank construction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Minimize the impact on local residents’ traffic during construction.</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA</td>
<td>a Minimizing LA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Conducting compensation and resettlement properly</td>
</tr>
<tr>
<td></td>
<td>Cultivators</td>
<td>Ensuring farmland irrigation during construction</td>
</tr>
<tr>
<td></td>
<td>Sand quarries</td>
<td>Making reasonable compensation</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Reducing or exempting irrigation costs after this subproject is put into operation</td>
</tr>
<tr>
<td></td>
<td>Individual businesses</td>
<td>Making reasonable compensation</td>
</tr>
<tr>
<td></td>
<td>Some villagers of Shankouyan Village</td>
<td>Ensuring the supply of drinking water</td>
</tr>
<tr>
<td></td>
<td>Affected village committees</td>
<td>Making related arrangements clearly and alleviating workload</td>
</tr>
</tbody>
</table>

4.2.3 Impacts of the Project on Stakeholders

4.2.3.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

(1) Implementing agency
The implementing agency of this subproject is Jinxian County State-owned Assets Investment Co., Ltd., and implementation will bring valuable experience to this company, improve the capacity of its employees, and promote its long-term development. Since this company is affiliated to the county government, the successful implementation of this subproject will provide promotion opportunities to its employees. As the implementing agency, this company is also under great stress, because its long-term development will be affected if this subproject fails to progress as expected.

(2) Local residents

1) Protect lives and properties of residents around Qinglan Lake from floods.

Based on the sampling survey on the 5 affected villages in Minhe Town, Luoqi Town and Qili Xiang, 87.3% of the respondents have been affected by floods in Qinglan Lake. Among these respondents, 83.2% have been affected by farmland inundation, 37.1% by house destruction and 25.2% by livestock losses. Their economic losses range from thousands of yuan to hundreds of thousands of yuan, 2,933.3 yuan on average. The flood bank will protect villagers’ lives and properties from floods.

2) Alleviate the burden of flood fighting and disaster relief for villagers, and reduce resulting labor losses.

According to the sampling survey, 73.6% of the respondents have participated in flood fighting and disaster relief, in which 92.1% have contributed labor, and 7.9% have contributed both money and labor.

3) The flood bank plus road design provides traffic convenience to nearby residents.

Currently, all roads around Qinglan Lake are earth roads that would be muddy and rugged on rainy days, and are also narrow and unsafe. 16.3% of the respondents are satisfied with the existing roads, and 79.2% think traffic around the lake is inconvenient.

4) Villagers’ traffic may be affected during construction.

Since the lakes around Qinglan Lake are narrow, the passage of large vehicles, storage of construction materials and piling of spoil during construction may impede villagers’ daily traffic.

(3) Residents affected by LA

This subproject involves LA other than HD. This project will permanently expropriate 283.77 mu of land, of which 195.02 mu of collective land and 88.75 mu of state-owned land involves. The paddy field is 117.43 mu of the collective land project appliance occupy. If residents affected by LA are not reasonably compensated and properly resettled, their livelihoods may be adversely affected.

(4) Cultivators

This subproject will be constructed for 15 months from March 2013 to May 2014. Due to the long construction period, villagers’ farmland irrigation may be affected. The villages in the subproject area deal mainly with farming, and each village has a large cultivated area. The main crops are paddy rice, rape and fruit trees, which rely heavily on irrigation from Qinglan Lake.

There are two modes of lift irrigation in the subproject area – manual and pumping irrigation. It has been found that few villagers use manual irrigation and most of them use pumping irrigation. There is an irrigation pumping station in Huxia Group, Tagang Village, Luoqi Town, where villagers rely on this station for farmland irrigation. Villagers are worried that this subproject may damage this station and affect their regular irrigation.

(5) The poor

The poor may be faced with increased irrigation charges. In the subsequent operation of this subproject, new irrigation facilities may involve irrigation charges, and high irrigation charges will be a burden for poor villages.

(6) Affected village committees

1) Alleviate flood fighting burden and improve working efficiency.

A routine task of the affected village committees is flood patrol. Village officials would form patrol teams to inspect Qinglan Lake regularly, and organize flood fighting and disaster relief during the flood season. This task is very laborious and affects their other tasks. After this subproject is
completed, the flood protection task of village officials will be alleviated and their working efficiency improved.

Figure 4-1 Village Officials Organizing Flood Fighting and Rescue

2) LA work brings stresses to the staff.

LA is an important task at the preparatory stage that needs the assistance of village committees, and involves a series of key issues, including cash compensation and land replacement. LA will determine whether this subproject can be implemented successfully or not. Therefore, this task will bring great stress to village officials.

(7) Qinglan Lake Aquatic Farm

1) Mitigating the financial impact of floods on the aquatic farm and increasing its income.

There is an aquatic farm with an aquaculture area of 16,000 mu in Qinglan Lake. This farm was founded in 1959 and is a financially independent state-owned entity. Presently, it has 190 regular workers and 80 casual workers, and its annual output value is over 6 million yuan. This subproject will benefit this farm greatly. This farm once suffered heavy economic losses from floods. We have learned from the interview with Manager Hong that in the 1998 flood, the fishing ground was inundated entirely and losses exceeded 2 million yuan; though inundation does not occur in ordinary years, aquaculture facilities would be damaged every year, with losses of up to 1.5 million yuan. There are only 11 earth banks around Qinglan Lake, and these banks are insufficient to resist floods. Therefore, this subproject will improve flood protection capacity, reduce the impact of floods on this farm and increase its income.

2) Construction may bring losses to the aquatic farm.

When Qinglan Lake Bridge was constructed in 2009, the aquatic farm’s fishing work became difficult because the channel was not excavated deeply. When the bank highway around Qinglan Lake was constructed, a water surface of about 160 mu was separated, and the aquatic farm has been in dispute with local villagers over the ownership of this water surface. Therefore, we think that the construction of the flood bank will have the following 3 impacts: 1) It will occupy the water surface of the aquatic farm and bring economic losses to it; 2) Spoil will be produced during construction; if spoil is not cleaned up timely, the riverbed may be raised, so that the aquatic farm will have to go elsewhere for fishing; 3) The existing water surface of the aquatic farm may be separated during construction, and a similar dispute over ownership may arise.

4.2.3.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

(1) Implementing agency

The implementing agency of this subproject is the Luxi County Construction Bureau. Implementation will bring valuable experience to this bureau and improve the capacity of its staff. The successful implementation of this subproject will become an important achievement of this bureau, and provide promotion opportunities to its staff. As the implementing agency, this bureau is also under great stress, because its future work will be affected if this subproject fails to progress as expected.

(2) Local residents

1) Protect lives and properties of residents around Qinglan Lake from floods.

Based on the sampling survey, 87.5% of the respondents have been affected by farmland inundation, 32.6% by house destruction and 42.7% by livestock losses, with an average loss of 3,425.1 yuan. The flood bank will protect villagers’ lives and properties from floods., and improve their living standard and quality of life.

2) The flood bank plus road design provides traffic convenience to nearby residents.

Currently, all roads along the Yuanhe River are earth roads that would be muddy and rugged on rainy days, and are also narrow and unsafe. 11.7% of the respondents are satisfied with the existing roads and 59.4% of the respondents think that traffic along the Yuanhe River is inconvenient. 3m wide flood bank sidewalks will be constructed on clay slopes. This bank design will improve
road conditions and provide traffic convenience. This subproject also uses a combined road-bank design. These improvements will facilitate the traffic of nearby residents greatly.

Figure 4-2 Satisfaction with Riverside Roads

3) Villagers’ traffic may be affected during construction.
Since the lakes around Qinglan Lake are narrow, the passage of large vehicles, storage of construction materials and piling of spoil during construction may impede villagers’ daily traffic.

4) Affecting villagers’ drinking water
This subproject will affect villagers’ drinking water in Shankouyan Village, Shangbu Town. Currently, there are two drinking water sources in this village, one is mountain spring water and the other well water. This subproject will not affect villagers who divert water from the mountain, but will those drinking well water directly. About 300 villagers drink water from two wells, which are close to the Yuanhe River, and the construction of the flood bank will certainly affect the use of these two wells.

5) Affecting the existing waste dumping site and villagers’ disposal of domestic waste
There is a waste dumping site beside the Yuanhe River, where waste is burned on sunny days. This subproject will affect this waste dumping site, so that villagers’ domestic waste may be otherwise disposed of.

(3) Residents affected by LA
This subproject will affect 1 downtown and 3 villages. This subproject will permanently occupy of 107.2mu of land, of which paddy field is 6.85mu, orchard is 7.19mu, vegetable greenhouse is 4.79mu. If residents affected by LA are not reasonably compensated and properly resettled, their livelihoods may be adversely affected.

(4) Cultivators
Villagers in the subproject area grow paddy rice and rape mainly, and have great demand for irrigation. They use two irrigation patterns mainly, one is lift irrigation from ponds and the other pumping irrigation from the Yuanhe River. There are two irrigation canals beside the Yuanhe River, and about 60 households take water from these two canals. Therefore, these two canals are very important for the production of villagers. This subproject may damage the connecting points of these two canals, thereby affecting villagers’ farmland irrigation.

[Interview]
March 3, 2012, head of Tantian Village, Luxi Town, male, 41
Our village has 2,032 villagers and 980 mu of cultivated land, and grows paddy rice mainly. Paddy rice has a high requirement for irrigation.

(5) Sand quarries
There are 4 sand quarries in the subproject area, one in Shankouyan Village, two in Shanxia Village and one in Tantian Village. These sand quarries have run for 4-5 years, with annual income of about 300,000 yuan each. This subproject will affect sand quarrying operations of these sand quarries and bring economic losses.

(6) The poor
The poor may be faced with increased irrigation charges. In the subsequent operation of this subproject, new irrigation facilities may involve irrigation charges, and high irrigation charges will be a burden for poor villages.

(7) Affected village committees
1) Alleviate flood fighting burden and improve working efficiency. A routine task of the affected village committees is flood patrol. Village officials would form patrol teams to inspect the Yuanhe River regularly, and organize flood fighting and disaster relief during the flood season. This task is very laborious and affects their other tasks. After this subproject is completed, the flood protection task of village officials will be alleviated and their working efficiency improved.

2) LA and HD work brings stresses to the staff. LA and HD is an important task at the preparatory stage that needs the assistance of village committees, and involves a series of key issues, including cash compensation and land replacement. LA and HD will determine whether this subproject can be implemented successfully or not. Therefore, this task will bring great stress to village officials.

(8) Individual businesses
1) Private store
There is one private store beside the Yuanhe River, about 50 m² in size (as indicated by ⑥ in Figure 4-8). It sells cigarettes, liquors, drinks and other daily necessities, and has run for over 20 years. This subproject will affect this stores, but we found that a store west of the Yuanhe River in Shankouyan Village can replace it (as indicated by ⑨) to meet villagers’ shopping needs.

For villagers, the removal of this store will affect their daily life, but due to the great benefit of the flood bank, the support this subproject greatly. For the owner of this store, his income will be affected, but he also supports this subproject because he has suffered greatly from floods and just hopes to get satisfactory compensation.

2) Village clinic
Shanxia Village Clinic is a private clinic located beside Shankouyan Bridge (as indicated by ⑧ in Figure 4-8), with an area of 80 m. It was opened 7 years ago, and serves villagers in Shankouyan Village and also other villages. The village clinic is very important for villagers. This subproject will affect the medical care of villagers, but a private clinic in Tantian Village may be a substitution. The boss of the village clinic should be compensated reasonably for his losses in this subproject.

In sum, these subprojects will affect the primary stakeholders in many ways. Defining such impacts is important for improving project management, as summarized below:

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main impacts</th>
</tr>
</thead>
</table>
| Jinxian County Qinglan Lake      | Implementing agency  | a. The successful implementation of this subproject will facilitate its long-term development.  
b. Its development will be affected if this subproject fails to progress as expected. |
| (Enclosed) Flood Control         | Local residents      | a. Protect lives and properties of residents around Qinglan Lake from floods  
b. Alleviate the burden of flood fighting and disaster relief for villagers, and reduce resulting labor losses |
| Construction Project             |                      |                                                                               |
The flood bank plus road design provides traffic convenience to nearby residents. Villagers’ traffic may be affected during construction.

Residents affected by LA: Affecting their livelihoods.

Cultivators: Affecting farmland irrigation.

The poor: Increased irrigation charges.

Qinglan Lake Aquatic Farm:
- a. Mitigating the financial impact of floods on the aquatic farm and increasing its income.
- b. Construction may bring losses to the aquatic farm.

Affected village committees:
- a. Alleviate flood fighting burden and improve working efficiency.
- b. LA and HD work brings stresses to the staff.

### 4.2.4 Impacts of Stakeholders on the Project

Project implementation is a process of interaction with stakeholders. When the Project affects stakeholders, stakeholders also affect the Project. The project design can be optimized by learning stakeholders’ needs, thereby removing manmade obstacles to project implementation. See Table 4-5:

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Attitude</th>
<th>Impact analysis</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jinxian County Yuanhe River Flood Bank Ecological Management Project</td>
<td>Implementing agency</td>
<td>Supportive</td>
<td>Planning and implementing this subproject</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Ordinary local residents</td>
<td>Supportive</td>
<td>There are numerous residents in the subproject area. They can express opinions through certain channels, and their support is important for the successful implementation of this subproject.</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Residents affected by LA</td>
<td>Supportive but worried</td>
<td>LA and HD must be conducted with the consent of residents, and compensation and resettlement measures consulted with them. Their consent is important for the successful implementation of this subproject.</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Cultivators</td>
<td>Supportive but worried</td>
<td>Whether cultivators are satisfied with irrigation facilities will affect construction progress.</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Supportive but worried</td>
<td>They are a vulnerable group and should be dealt with properly.</td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Qinglan Lake</td>
<td>Supportive</td>
<td>It will be adversely affected by this subproject and should be</td>
<td>Minor</td>
</tr>
</tbody>
</table>

Table 4-4 Impacts of Stakeholders on the Flood Protection and Drainage Subprojects
<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Supportive but worried</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Farm</td>
<td>but worried</td>
<td></td>
</tr>
<tr>
<td>Affected village committees</td>
<td>Supportive</td>
<td></td>
</tr>
<tr>
<td>Village committees play a crucial role in LA, and their acceptance of this subproject will affect its implementation greatly.</td>
<td></td>
<td></td>
</tr>
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<td>Residents affected by LA and HD</td>
<td>Supportive but worried</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3 Public Participation

Public participation is an integral part of SA. Through the survey on public participation, we can learn different stakeholders’ comments and suggestions on the Project, identify social risks, and propose feasible risk aversion or mitigation measures so that all stakeholders can enjoy the benefits of the Project as much as possible.

4.3.1 Participation of Residents

4.3.1.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

The task force conducted a survey on the participation of local residents in this subproject and an institutional FGD to obtain detailed information. During the questionnaire survey, respondents of different genders, ages and occupations were recovered. 90 copies of the questionnaire were distributed and 86 valid copies recovered, with an effective recovery rate of 95.6%.

Based on the questionnaire survey, 92.7% of the respondents support this subproject and only 1.3% do not support; 93.5% of the respondents think this subproject is very necessary and only 1.9% of the respondents do not think so. Public awareness of this subproject is quite low, where 31.7% of the respondents knew about this subproject through the survey only.

64.8% of the respondents would file complaints with the government, community committee or sub-district office, showing that local residents are of highly confidence in the government, 7.9% of the respondents would do this with the construction agency, and 11.2% would discuss countermeasures with neighbors.

4.3.1.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

The task force conducted a survey on the participation of local residents in this subproject and an institutional FGD to obtain detailed information. During the questionnaire survey, respondents of different genders, ages and occupations were recovered. 90 copies of the questionnaire were distributed and 82 valid copies recovered, with an effective recovery rate of 91.1%.
Based on the questionnaire survey, 94.2% of the respondents support this subproject and 93.5% of the respondents think this subproject is very necessary. Public awareness of this subproject is quite low, where 35.8% of the respondents knew about this subproject through the survey only.

72.1% of the respondents would file complaints with the government, community committee or sub-district office, showing that local residents are of highly confidence in the government. 4.8% of the respondents would do this with the construction agency, and 20.7% would discuss countermeasures with neighbors.

4.3.2 Participation of Women

Gender differences are prevalent in public participation, so the task force paid special attention to women. Since the flood protection and drainage subprojects are directly associated with women in the project area, they have shown greater expectations for these subprojects.

4.3.2.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

95.1% of the female respondents support this subproject. All of them think this subproject is very necessary and expects it to be implemented soon.

In terms of project awareness, 56.7% of the female respondents knew about this subproject through the survey only, 23.1% knew from relatives and friends, 12.5% knew through broadcast and TV, and 7.7% knew from the staff of the village committee. Based on the survey results, the female respondents are not well aware of this subproject, and quite a lot knew through information channels, such as relatives and friends.

From the female respondents’ answers to the question “To whom will you file any complaint about this subproject?”, 43.6% of the respondents will do this with the sub-district office or village committee, 38.5% choose others and say that “they have no complaints”, 12.8% with the construction agency and 5.1% with neighbors. Based on the survey results, attention should be paid to the role of grass-root organizations in project publicity, and convenience provided to women in participation.

4.3.2.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

The female respondents generally support this subproject. 92.4% of them think this subproject is very necessary and expects it to be implemented soon.

In terms of project awareness, 33.3% of the female respondents knew about this subproject through broadcast and TV, 32.7% knew about this subproject through the survey only, 15.4% knew from relatives and friends, and 18.6% knew from the staff of the village committee. Based on the survey results, the female respondents are not well aware of this subproject, and quite a lot knew through the survey only.

From the female respondents’ answers to the question “To whom will you file any complaint about this subproject?”, 56.8% of the respondents will do this with the sub-district office or village committee, 21.6% with neighbors, 12.8% with the construction agency and 8.1% with others. Based on the survey results, grass-root organizations should pay attention to the expression of women’s opinions and enhance their participation.

4.4 Social Impact Analysis

4.4.1 Project Benefit Analysis

The flood protection and drainage subprojects will bring great benefits to local residents, and the development the project counties and Jiangxi Province:

First, reduce the threat of floods and maintain social stability. Local residents are often hit by floods, and their lives and properties are not secured. These subprojects will protect them from floods, improve their sense of safety, and protect their regular production and life.
Second, improve traffic conditions. All roads around Qinglan Lake and along the Yuanhe River are earth roads that would be muddy and rugged on rainy days, and are also narrow and unsafe. In these subprojects, some flood banks will also serve as roads, thereby improving traffic conditions.

Third, improve overall county and city image, and promote county and city development. Jinxian and Luxi Counties affected by these subprojects are during a rapid urban development period, and floods will restrict stable and rapid urban and economic development. These subprojects will establish a reliable urban flood protection system, thereby improving overall county and city image, and promoting county and city development.

Fourth, promote ecological improvement. These subprojects will prevent water loss and soil erosion on both river banks, conserve vegetation and wetland, and improve water quality effectively. A good ecological environment is a prerequisite to the benign development of the project counties. The implementation of these subprojects will enhance people’s awareness of environmental protection, thereby promoting tourism, economic and social development.

Fifth, improve the professional proficiency of the staff of the departments concerned. With the justification and extension of the World Bank loan, the normative project management pattern and people-oriented thought will be carried through, thereby improving the management level of the staff of the government departments concerned, and the technical level of the technicians and skilled workers involved in project implementation.

4.4.2 Negative Impacts of the Subprojects

Despite of the significant benefits, these subprojects may result in some negative impacts. We should minimize such negative impacts through proper assessment to ensure the successful implementation of these subprojects. These subprojects have the following negative impacts:

First, impact on residents affected by LA and HD: The residents affected by LA will be forced to change their means of living, and be faced with employment and long-term development issues. If these issues are not properly handled, they would be impoverished. The residents affected by HD will be faced with both resettlement and livelihood issues, have to adapt to new life and their existing social relations may be damaged. Therefore, those affected by LA and HD should be reasonably compensated and properly resettled to avoid giving rise to new social issues.

Second, impact on public facilities: In the project area, residents rely on rivers for farmland irrigation, which may be affected by the long construction period, thereby affecting their income and livelihoods directly. Construction will also their existing irrigation modes, such as pumping, manual and canal irrigation. In addition to irrigation facilities, these subprojects will also damage water wells and result in difficulty in drinking.

Third, impact on the enterprise’s economic performance: These subprojects will affect an aquatic farm. If construction is not scientifically and rationally planned, its economic performance, and the income of its workers will be affected. The existing water surface of the aquatic farm may be separated during construction, and a similar dispute over ownership may arise.

4.5 Social Risk Management

4.5.1 Identification of Social Risks

4.5.1.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

(1) LA risk

This subproject will involve LA. If the policy is sound and implemented properly, LA will not bring any risk to the income restoration of the affected persons. However, if the persons affected by LA are not compensated or
reallocated of land properly, their interests will be infringed on and they will feel dissatisfied, thereby impeding project implementation.

(2) Risk to enterprise economic performance
In this subproject, this subproject will occupy some water surface of Qinglan Lake Aquatic Farm and affect its economic performance. This farm is a financially independent state-owned entity, and the income of its workers are affected directly by its economic performance. Presently, it has 190 regular workers and 80 casual workers. These workers have not been covered by any social security program, so this subproject may pose an economic risk to these workers. In addition, some water surface will be separated during construction, which may give rise to a dispute over the separated water surface between this farm and nearby villagers. In order to ensure this farm’s economic performance and regular production, normative construction and proper coordination with nearby villagers should be performed.

(3) Farmland irrigation risk
There are two modes of lift irrigation in the subproject area – manual and pumping irrigation. It has been found that few villagers use manual irrigation and most of them use pumping irrigation. There is an irrigation pumping station in Huxia Group, Tagang Village, Luoxi Town, where villagers rely on this station for farmland irrigation. Villagers are worried that this subproject may damage this station and affect their regular irrigation.

(4) Risk for the poor
This subproject is a public welfare project, and will bring great benefits to nearby residents, and local economic and social development. For local residents, drainage stations and other supporting irrigation facilities will be constructed along with the flood bank, and they have to bear some operating expenses of such facilities. Charges on new irrigation facilities should be fixed by reference to their current irrigation expenses in order not to increase their financial burden.

(5) Risk of insufficient public participation
Based on the questionnaire survey, 31.7% of the respondents was unaware of this subproject before the survey, showing that the implementing agency had not given proper publicity to this subproject. Inadequate information disclosure may affect LA, HD and project implementation.

4.5.1.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

(1) LA and HD risk
This subproject will involve LA and HD. If the policy is sound and implemented properly, LA and HD will not bring any risk to the income restoration of the affected persons. If the affected persons are not resettled properly, they will be faced with the risk of lose of housing or reduced quality of life. They should be resettled properly and their demolished houses compensated for reasonably, so that they can build or buy equivalent housing.

(2) Drinking water risk
The collective well of nearby villagers located beside the Yuanhe River will be affected during construction, so that over 300 persons will be unable be drink water regularly. This should be considered in this subproject, and an alterative water source found for villagers.

(3) Farmland irrigation risk
The Yuanhe River is the irrigation water source of nearby villagers. Existing irrigation facilities beside the river will be affected during construction. Construction should be performed in stages and irrigation facilities protected properly so that regular irrigation is ensured during construction.

(4) Waste dumping site
There is a waste dumping site beside the Yuanhe River, which will be damaged during construction, thereby affecting environmental hygiene. Villagers should be persuaded to dump waste at a central site in the village for disposal before construction so as to ensure environmental hygiene during construction.

(5) Risk for the poor
This subproject is a public welfare project, and will bring great benefits to nearby residents, and local economic and social development. For local residents, drainage stations
and other supporting irrigation facilities will be constructed along with the flood bank, and they have to bear some operating expenses of such facilities. Charges on new irrigation facilities should be fixed by reference to their current irrigation expenses in order not to increase their financial burden.

(6) Risk of flood bank management

Subsequent management is very important after the completion of the flood bank. There are some factors impeding bank safety and flood fighting in the bank area, such as sand quarries, waste dumping site and vegetable plots, a flood bank management agency should be established to manage the flood bank and the bank area, and ensure the proper functioning of the flood bank.

(7) Risk of insufficient public participation

Based on the questionnaire survey, 35.8% of the respondents was unaware of this subproject before the survey, showing that the implementing agency had not given proper publicity to this subproject. Inadequate information disclosure may affect LA, HD and project implementation.

4.5.2 Evasion of Social Risks

4.5.2.1 Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project

(1) Evasion of LA risks

1) In order to mitigate the impact of LA, LA must be conducted on the basis of consultation with the affected persons. The compensation modes for LA usually include land reallocation and cash compensation, and should be chosen based on their expectations.


(2) Evasion of risk to enterprise economic performance

1) Reduce water surface occupation through scientific construction. Some water surface of Qinglan Lake Aquatic Farm will be occupied due to flood bank construction. Although cash compensation will be paid at the compensation rate, such occupation will affect this farm’s long-term income, so the design of the flood bank should minimize water surface occupation.

2) Perform construction normatively and remove spoil timely. Spoil will be produced during construction; if spoil is not cleaned up timely, the riverbed may be raised, so that the aquatic farm will have to go elsewhere for fishing. Therefore, construction should be performed normatively and spoil removed timely.

3) Make proper compensation to protect economic interests. Losses of this farm arising from this subproject should be compensated for timely, and an agreement signed with the business owner to ensure that compensation fees are paid fully to its workers.

4) Perform proper coordination to avoid dispute over water surface ownership. The separated water surface area in this subproject should be measured and disclosed in the nearby village, so that villagers know that the aquatic farm owns this water surface in order to avoid any dispute.

(3) Evasion of farmland irrigation risk

1) Carry out construction in stages or sections other than comprehensively. Construction should be performed in stages in consideration of special irrigation needs. Villagers around Qinglan Lake mostly grow paddy rice, and the peak period of irrigation is from June to August. Special arrangements should be made in this period to minimize the impact on farmland irrigation.

2) Protect existing irrigation facilities to avoid affecting farmland irrigation during construction. Irrigation facilities will be constructed in this subproject, which is good to
improving farmland irrigation. However, in order to ensure regular irrigation during construction, existing irrigation facilities should be protected or temporary means of irrigation provided during construction.

3) Coordinate construction with villagers during the irrigation period to avoid disputes. Farmland irrigation is something important for local villagers, and a dispute may arise if this is not coordinated properly. A notice should be posted in the subproject area to show how the irrigation problem will be solved during construction, and villagers should be allowed to express their objections about such arrangement.

4) Evasion of risk of villagers’ ability to pay
   1) Comply strictly with the state electricity rates for drainage and irrigation. The electricity rate of farmland irrigation during the operating period should be fixed at 0.415 yuan per kilowatt-hour in strict conformity with the state preferential policy. If construction costs are to be accounted for in electricity charges, accounting results should be disclosed for comments.
   2) Grant preferences to the poor and households covered by minimum living security.

4.5.2.2 Luxi County Yuanhe River Flood Bank Ecological Management Project

1) Evasion of LA and HD risk
   1) In order to mitigate the impact of LA and HD, LA and HD must be conducted on the basis of consultation with the affected persons. The compensation modes for LA usually include land reallocation and cash compensation, and those for HD usually include house reconstruction and cash compensation. Compensation modes should be chosen based on their expectations.

2) Evasion of drinking water risk
   1) Secure drinking water for villagers before construction. The affected villagers may share drinking water with other villagers, or new wells may be driven in the village to meet the demand for drinking water. In whichever manner, coordination among villagers should be performed properly to avoid any dispute over drinking water.
   2) Compensate for pipeline laying expenses. When any collective well is damaged and drinking water is otherwise diverted, a certain investment will be involved. A certain subsidy should be granted to the affected villagers so as not to increase their financial burden.

3) Evasion of farmland irrigation risk
   1) Carry out construction in stages or sections other than comprehensively. Construction should be performed in stages in consideration of special irrigation needs. Villagers around the Yuanhe River mostly grow paddy rice, and the peak period of irrigation is from June to August. Special arrangements should be made in this period to minimize the impact on farmland irrigation.
   2) Protect existing irrigation facilities to avoid affecting farmland irrigation during construction. Irrigation facilities will be constructed in this subproject, which is good to improving farmland irrigation. However, in order to ensure regular irrigation during construction, existing irrigation facilities should be protected or temporary means of irrigation provided during construction.
   3) Coordinate construction with villagers during the irrigation period to avoid disputes. Farmland irrigation is something important for local villagers, and a dispute may arise if this
is not coordinated properly. A notice should be posted in the subproject area to show how the irrigation problem will be solved during construction, and villagers should be allowed to express their objections about such arrangement.

4) Evasion of waste dumping site risk
   1) Communicate the benefit of having a central dumping site to villagers, and explain the adverse impact of dumping waste beside the river on water quality and the surrounding environment.
   2) Persuade villagers to dump waste at a central site in the village for disposal, or set up more dumping sites at closer places.

5) Evasion of risk of villagers’ ability to pay
   1) Comply strictly with the state electricity rates for drainage and irrigation. The electricity rate of farmland irrigation during the operating period should be fixed at 0.415 yuan per kilowatt-hour in strict conformity with the state preferential policy. If construction costs are to be accounted for in electricity charges, accounting results should be disclosed for comments.
   2) Grant preferences to the poor and households covered by minimum living security.

6) Evasion of risk of flood bank management
   1) Make clear the organizational setup of flood bank management. The water department of the city government is responsible for city-wide flood bank protection and management, and the water departments of the county governments are responsible for flood bank protection and management within their respective jurisdictions. The city water resources management agency established with the approval of the city government should perform flood bank protection and management functions as delegated by the water department of the city government, and the city planning, construction, utilities, traffic, land and public security departments should assist in flood bank protection and management.
   2) Give publicity to laws and regulations on flood bank protection to improve residents’ awareness so that they support flood bank management actively, and punish organizations and individuals threatening the safety of the flood bank according to law.

7) Evasion of risk of insufficient public participation
   The implementing agency should conduct publicity on this subproject properly via such media as TV, broadcast, newspaper and government website, and establish a feedback channel at the village committee to allow villagers to participate in project decision-making.

Table 4-5 Summary of Impacts, Risks and Measures of the Flood Protection and Drainage Subprojects (Qinglan Lake Subproject)

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Impact</th>
<th>Affected persons</th>
<th>Risks</th>
<th>Evasion measures</th>
</tr>
</thead>
</table>
| Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project | LA | Residents affected by LA | Loss of land, affected livelihoods | a. Select compensation modes based on the affected persons’ expectations.  
 b. Make compensation in strict conformity with applicable policies |
| | Project construction | Qinglan Lake Aquatic Farm | a. Affecting economic performance  
 b. Dispute over ownership | a. Reduce water surface occupation through scientific construction  
 b. Perform construction normatively and remove spoil timely  
 c. Make proper compensation to protect economic interests  
 d. Perform proper coordination to avoid dispute over water surface ownership |
| | Project construction | Cultivators | Affecting farmland irrigation | a. Carry out construction in stages or sections other than comprehensively  
 b. Protect existing irrigation facilities to avoid affecting farmland irrigation during construction  
 c. Coordinate construction with villagers during the irrigation period to avoid disputes |
| | Subsequent operation | The poor | Increased irrigation charges | a. Comply strictly with the state electricity rates for drainage and irrigation  
 b. Grant preferences to the poor and households |
| Project publicity | Local residents | Insufficient public participation | a. Give publicity through media properly  
b. Establish a feedback channel |
| --- | --- | --- | --- |
| LA and HD | Residents affected by LA and HD | a. Loss of land, affected livelihoods  
b. Compensation and adaptation | a. Select compensation modes based on the affected persons’ expectations.  
b. Make compensation in strict conformity with applicable policies |
| Project construction | Shankouyan villagers | Affecting drinking water | a. Solve the drinking water problem before construction  
b. Compensate for pipeline laying and other expenses |
| Project construction | Cultivators | farmland irrigation | a. Carry out construction in stages or sections other than comprehensively  
b. Protect existing irrigation facilities to avoid affecting farmland irrigation during construction  
c. Coordinate construction with villagers during the irrigation period to avoid disputes |
| Project construction | Local residents | Waste dumping site | a. Communicate the benefit of having a central dumping site to villagers  
b. Persuade villagers to dump waste at a central site in the village for disposal, or set up more dumping sites at closer places. |
| Subsequent operation | The poor | Increased irrigation charges | a. Comply strictly with the state electricity rates for drainage and irrigation  
b. Grant preferences to the poor and households covered by minimum living security |
| Riverside quarrying operations | Flood bank | Threatening the safety of the flood bank | a. Make clear the organizational setup of flood bank management.  
b. Give publicity to laws and regulations on flood bank protection, and punish organizations and individuals threatening the safety of the flood bank according to law. |
| Project publicity | Local residents | Insufficient public participation | a. Give publicity through media properly  
b. Establish a feedback channel |
5 Water Supply and Wastewater Subprojects

5.1 Luxi County Water Supply System Improvement Project

The purpose of the water supply and wastewater subprojects is to promote the utilization of urban water resources by improving water supply and drainage systems, protect the development of the Poyang Lake Ecological Economic Zone, provide better public services to residents in the project area, improve their quality of life, and promote sustainable social and environmental development.

(1) Components

According to the Feasibility Study Report of the Luxi County Town and Surrounding Villages Safe Drinking Water Project, the components include: ①water delivery works: delivering water from the Shankouyan Reservoir to the existing waterworks and its extension; ②waterworks improvement: expanding the existing water treatment facility to 3×10⁴ m³/d; ③ water distribution works: improving the existing water distribution network to expand its coverage by laying pipelines with a total length of 159km (including delivery pipelines for untreated and treated water).

(2) Beneficiary area

The proposed range of water supply of this subproject includes Xintian, Gexi, Jiangxia, Tangli, Gaolou, Dongyang, Nianfeng, Luxing, Liujiang and Linjiafang Villages in Luxi Town, Luxi County, all villages in Shangbu Town, and the north and west industrial parks of Luxi County. See Table 5-1.

Table 5-1 Affected Population in Additional Water Supply Area

<table>
<thead>
<tr>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xintian</td>
<td>2570</td>
<td>5.2</td>
<td>Luxing</td>
<td>2566</td>
<td>5.3</td>
<td>Gaolou</td>
<td>2368</td>
<td>5.9</td>
</tr>
<tr>
<td>Gexi</td>
<td>2431</td>
<td>9.1</td>
<td>Liujiang</td>
<td>1638</td>
<td>6.6</td>
<td>Dongyang</td>
<td>2658</td>
<td>8.7</td>
</tr>
<tr>
<td>Jiangxia</td>
<td>1974</td>
<td>12.1</td>
<td>Linjiafang</td>
<td>2189</td>
<td>10.6</td>
<td>Nianfeng</td>
<td>1895</td>
<td>8.5</td>
</tr>
<tr>
<td>Tangli</td>
<td>1164</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Shangbu Town

<table>
<thead>
<tr>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
<th>Village</th>
<th>Population</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yatang</td>
<td>3776</td>
<td>3.4</td>
<td>Jiangxia</td>
<td>2367</td>
<td>4</td>
<td>Shangbu</td>
<td>2411</td>
<td>4.9</td>
</tr>
<tr>
<td>Chayuan</td>
<td>1714</td>
<td>3.7</td>
<td>Xujiafang</td>
<td>1530</td>
<td>5</td>
<td>Huanshan</td>
<td>3472</td>
<td>3.4</td>
</tr>
<tr>
<td>Zhongbu</td>
<td>2577</td>
<td>2.5</td>
<td>Pingle</td>
<td>2225</td>
<td>3.7</td>
<td>Jiuzhou</td>
<td>2809</td>
<td>4.9</td>
</tr>
<tr>
<td>Shankouyan</td>
<td>2934</td>
<td>1.3</td>
<td>Maobuling</td>
<td>1462</td>
<td>5.8</td>
<td>Longwangqiao</td>
<td>1989</td>
<td>6.1</td>
</tr>
<tr>
<td>Xiayuan</td>
<td>1028</td>
<td>6.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total: 21,453

Shangbu Town

Total: 30,294

5.2 Primary Stakeholder Analysis

5.2.1 Identification of Stakeholders

Stakeholder analysis is to identify the Project’s impacts on them by identifying stakeholders and learning their needs in order to perform project decision-making and management more effectively. Stakeholders mean people and organizations interested directly or indirectly in the Project, and affecting the success of the Project directly or indirectly. Stakeholders are affected to varying degrees, and are therefore divided into primary and secondary stakeholders. Identifying primary stakeholders accurately can reflect the relationship between the project objectives and the affected groups more effectively. The primary stakeholders identified by the task force are as shown in Table 5-2.

Table 5-2 Identification of Stakeholders of the Water Supply and Wastewater Subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Positively affected persons</th>
<th>Negatively affected persons</th>
<th>Both positively and negatively affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi Town</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shangbu Town</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Luxi County Water Supply System Improvement Project</th>
<th>a. Luxi County Water Supply Company</th>
<th>Existing waterworks</th>
<th>a. The poor b. Residents consuming much water</th>
</tr>
</thead>
</table>

## 5.2.2 Needs of Stakeholders

Different stakeholders have different needs for the Project. Analyzing the primary stakeholders’ needs helps to identify the main social impacts of the Project, avoid potential social risks and promote the successful implementation of the Project. The task force has communicated all primary stakeholders in the project area and learned their different needs by means of questionnaire survey, interview, FGD and observation.

Table 5-3 Summary of Needs of Stakeholders of the Water Supply and Wastewater Subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County Water Supply Company</td>
<td>a. Expanding the range of water supply, and increasing water users and income b. Improving water quality and amount</td>
<td></td>
</tr>
<tr>
<td>Local residents</td>
<td>Safe, ample and uninterrupted water supply</td>
<td></td>
</tr>
<tr>
<td>Existing waterworks</td>
<td>Receiving reasonable compensation; resettling workers properly</td>
<td></td>
</tr>
<tr>
<td>The poor</td>
<td>a. Safe, ample and uninterrupted water supply b. Reduced water costs</td>
<td></td>
</tr>
<tr>
<td>Residents consuming much water</td>
<td>a. Ensuring water supply b. Minimizing water costs</td>
<td></td>
</tr>
</tbody>
</table>

## 5.2.3 Impacts of the Project on Stakeholders

1) Luxi County Water Supply Company

Luxi County Water Supply Company is a public welfare enterprise affiliated to the county housing construction bureau and founded in 1986, and has 77 in-service workers and 25 retired workers. It operates independently and enjoys no government subsidy.

In 2011, the company’s total assets were 29.62 million yuan, total liabilities 12.55 million yuan, amount of water sold 5.228 million tons, gross output value 7.999 million yuan, average water rate 1.53 yuan/ton, total water supply costs 5.9 million yuan (including electricity costs of 1.43 million yuan, wages of 930,000 yuan and depreciation charges of fixed assets 1.26 million yuan), and costs of water sold 1.21 yuan/ton (including tax).

The company will be directly affected by this subproject and will be a beneficiary. This is shown in the following:

1) Expanding the range of water supply, and increasing water users and income

As a business enterprise, this company’s income is from water sales, opening fees (main network costs, management fees and water meter costs) and installation fees (see Table 5-4). The current water supply range of the company is the central area of the Luxi county town. Its water supply population was about 53,000 at the end of 2011, and will be expanded by 51,747 in this subproject, which is a large market for the company.

Table 5-4 Tariff of Luxi County Water Supply Company (unit: yuan)

<table>
<thead>
<tr>
<th>Type of user</th>
<th>Basic water rate</th>
<th>Sewage treatment charges collected</th>
<th>Overall water rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>1.30</td>
<td>0.60</td>
<td>1.90</td>
</tr>
<tr>
<td>Public institutions</td>
<td>1.60</td>
<td>0.60</td>
<td>2.20</td>
</tr>
<tr>
<td>Industrial enterprises</td>
<td>1.80</td>
<td>0.60</td>
<td>2.40</td>
</tr>
<tr>
<td>Business services</td>
<td>2.70</td>
<td>0.60</td>
<td>3.30</td>
</tr>
<tr>
<td>Special industries</td>
<td>4.00</td>
<td>0.60</td>
<td>4.60</td>
</tr>
<tr>
<td>Opening fees (main network costs, management fees and water meter costs)</td>
<td>Urban users 950</td>
<td>Rural users 550</td>
<td></td>
</tr>
</tbody>
</table>

2) Improving water quality and amount
The company’s existing water intake is located in the middle-upper Yuanhe River (center of the Luxi county town), 400m away from the waterworks. With the completion of the Shankouyan Reservoir in the upper Yuanhe River (out of the Luxi county town), the water level in the lower Yuanhe River will be affected greatly. With the development of the county town, due to the backward sewage interception system and wastewater treatment plant, some untreated sewage will be discharged into the Yuanhe River to deteriorate its water quality, so that the water quality of the existing water source can hardly meet the Water Quality Standard for Drinking Water Sources. The new water intake is located in the upper Yuanhe River out of the county town, and can assure both water quality and amount.

Figure 5-1 Current Water Intake

(2) Local residents
Since a centralized safe drinking water supply project has been implemented in rural areas in recent years, centralized water supply has been realized in the Luxi county town and the surrounding villages. Water is either supplied from mountain springs by gravity via water tanks or from shallow groundwater by pumping via wells. The two supply modes have different issues and implications in this subproject (Table 5-5).

Table 5-5 Impacts of Luxi County Town and Surrounding Villages Safe Drinking Water Project on Residents

<table>
<thead>
<tr>
<th>Water source</th>
<th>Problem</th>
<th>Demand of residents</th>
<th>Impact of this subproject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain spring</td>
<td>Mountain spring water is restricted by topography, air temperature and rainfall, and is limited in amount; all-day supply is impossible and there is seasonal shortage.</td>
<td>All-day, sufficient water supply</td>
<td>All-day, sufficient water supply</td>
</tr>
</tbody>
</table>
| Shallow groundwater | a. Shallow groundwater is likely to be affected by ponds, rivers and wastewater.  
   b. It is rich in calcium and likely to cause calculi over time. | Safe water drinking | Safe water drinking                  |

[Interview] March 3, 2012, Ms Chen, villager, Group 11 of Shankouyan Village, Shangbu Town
Ms Chen, 36, Han, junior high school education, 4-member family
Over 20 households in Group 11 of Shankouyan Village raised funds to build a water tank in the 1990s to supply mountain spring water to each household after sedimentation.
Since the amount of water is limited, water is available once in the morning and evening each. It is used mainly for drinking and cooking, and water for washing and mopping is still from the Yuanhe River. She thinks that it is inconvenient to use water, because it is supplied intermittently and sometimes in short supply. In order that the whole family can use water all day, some households have installed water tanks on roofs with a capacity of 1.5-2 tons, used to store water supplied by the village group.

Figure 5-2 Water Tank on Roof

Although she thinks that water is unhygienic due to deposits, she is not worried about safety, because there has no related disease in the village.
Each household pays 20 yuan every year for water supply management. The pipeline is repaired by villagers voluntarily for free.
She is willing to use water supplied by the county town water supply company as long as it is uninterrupted and of good quality, but unwilling to pay for any new pipeline.
The group raised funds to drive a well in 2007, involving over 40 households in total. The well is only 3m away from the Yuanhe River and 5m deep, and well water is pumped into a water tower (capacity 50 tons) on the slope for supply to households. Everyone paid 180 yuan for the well.

It is said that water contains calcium compounds and a layer of scale would be formed on the bottom of a pot used to boil water within 10 days. Prolonged drinking of such water will result in calculi.

Since there are about 200 users but the capacity of the water tower is limited, there is sometimes shortage of supply. His family would wash clothes with water from the Yuanhe River, and use tap water for drinking.

Every household has installed a water meter and pays 2 yuan per m³ of water. Zhou’s family (9 members) would consume about 3 m³ of water a month, and pay 6 yuan. Water costs are used for water supply and repair mainly.

Zhou is very willing to use safe and hygiene tap water. However, since a lot of money has been spent to install the existing equipment, he thinks that it is preferred to utilize the existing pipeline and equipment in the new project.

(3) Existing waterworks

There is a waterworks in Shangbu Town, which utilizes shallow groundwater as the water source. Water is settled and filtered before being supplied to households. This waterworks is a financially independent public welfare enterprise affiliated to the town government, and serves 38,000 residents in the county town only. After the county water supply company includes Shangbu Town in the range of water supply, this waterworks will be out of production, and the resettlement of its workers will be the greatest impact of this subproject on this waterworks.

(4) The poor

This subproject will solve the water supply problem of residents, and will also benefit the poor. In addition, a preferential policy has been developed for the poor, thereby protecting their right to use water.

(5) Residents consuming much water

Since water will be charged based on consumption after the completion of this subproject, residents consuming much water will incur more water costs, and also be made to take water-saving measures to reduce water costs.

In sum, these subprojects will affect the primary stakeholders in many ways. Defining such impacts is important for improving project management, as summarized in Table 5-7:

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Main impacts</th>
</tr>
</thead>
</table>
| Luxi County Water Supply System Improvement Project | Luxi County Water Supply Company | a. Expanding the range of water supply, and increasing water users and income  
b. Improving water quality and amount |
|           | Local residents | a. All-day, sufficient water supply  
b. Safe water drinking |
|           | Existing waterworks | a. Stop of production  
b. Resettlement of workers |
|           | The poor | a. All-day, sufficient water supply |
5.2.4 Impacts of Stakeholders on the Project

Project implementation is a process of interaction with stakeholders. When the Project affects stakeholders, stakeholders also affect the Project. The project design can be optimized by learning stakeholders’ needs, thereby removing manmade obstacles to project implementation. See Table 5-8:

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Stakeholder</th>
<th>Attitude</th>
<th>Impact analysis</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County Water Supply System Improvement Project</td>
<td>Luxi County Water Supply Company</td>
<td>Strongly supportive</td>
<td>Implementing agency, responsible for project planning and implementation</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Local residents</td>
<td>Supportive, but worried about expenses</td>
<td>Target group, having a direct voice on project benefits</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Existing waterworks</td>
<td>Barely supportive</td>
<td>In conflict with project benefits; its cooperation will determine project progress</td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>The poor</td>
<td>Supportive, but worried about expenses</td>
<td>Target group, having a direct voice on project benefits</td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Residents consuming much water</td>
<td>Barely supportive</td>
<td>Target group, having a direct voice on project benefits</td>
<td>Minor</td>
</tr>
</tbody>
</table>

5.3 Public Participation

A public welfare construction project relies heavily on public participation and consultation, and information disclosure. Only in this way can ordinary residents in the project area be empowered to obtain project information and participate in the project actively.

5.3.1 Participation of Residents

The task force conducted a survey on the participation of local residents in this subproject during the SA.

Most of the respondents (90.0%) are aware of this subproject, including 75% from the government (including village/community committees), 10% from relatives/friends and 5% from other villagers. 82.5% of the respondents support this subproject, 5% do not support and 12.5% don’t care. When asked “To whom will you usually raise any suggestion or complaint about this subproject?”, 70% of the respondents chose the village/community committee, 15% chose the government, 5% chose other and 10% thought that they had no complaint.

It has also been found that though local residents are highly aware of this subproject, they are not clear about its details, which may be an obstacle at the implementation stage. Project information should be fully disclosed during implementation, and its benefits communicated through various media to involve the target groups in this subproject so that they finally recognize this subproject.

5.3.2 Participation of Women

Gender differences are prevalent in public participation, so the task force paid special attention to women.

20 valid copies of the questionnaire collected were completed by female respondents, accounting for 50%. Most of the female respondents (90%) support this subproject and think
that it is very necessary to implement this subproject, because they are direct water users in families.

Most of them (90%) have heard of this subproject, including 60% from the government (including village/community committees), 10% from relatives/friends and 20% from other villagers. When asked “To whom will you usually raise any suggestion or complaint about this subproject?”, 70% of the respondents chose the village/community committee, 20% chose the government and 10% thought that they had no complaint. In general, women in the subproject area support this subproject strongly and are highly aware of it.

5.4 Social Impact Analysis

5.4.1 Project Benefit Analysis

(1) Meeting the increasing demand for production and domestic water
Luxi County is undergoing urban development, where people's living standard and water availability are increasing, so future production and domestic water consumption will grow dramatically (see Table 5-9). The water supply and wastewater subprojects will improve expand or construct waterworks, improve the water supply network, increase water supply, expand the range of water supply, and meet the demand for production and domestic water of enterprises and residents.

Table 5-8 Present (2011) and Predicted (2020) Water Consumption

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Existing water consuming population</th>
<th>Expected water consuming population</th>
<th>Existing water consumption</th>
<th>Expected water consumption</th>
<th>Existing water supply capacity</th>
<th>Expected water supply capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County Water Supply System Improvement Project</td>
<td>53000</td>
<td>113435$^1$</td>
<td>1.66×10⁴m³/d</td>
<td>2.73×10⁴m³/d</td>
<td>2.0×10⁴m³/d</td>
<td>4.01×10⁴m³/d</td>
</tr>
</tbody>
</table>

(2) Supplying safe, convenient and ample water to residents
The townships around the Luxi county town drink mountain spring water or shallow groundwater. However, due to the uncontrolled use and discharge of fertilizers, pesticides, domestic sewage and industrial wastewater in recent years, water quality has been threatened greatly. The local waterworks and residents have a relatively weak sense of safe water use, and water quality monitoring is insufficient. Plastic or cast iron pipes are generally used to supply water, and are likely to result in secondary pollution.

In addition, mountain spring water or shallow groundwater is likely to be affected by ambient factors, and may be small in amount or interrupted seasonally, so that residents are often unable to get all-day water supply.

The water supply and wastewater subprojects are intended to include residents around towns in the range of urban water supply, and supply safe, convenient and ample water supply to residents.

(3) Optimizing water supply networks
The existing water supply networks in the subproject area has the following problems: ①They are focused on central towns and unable to cover more areas; ②They are low in density; ③Pipes are relatively small in diameter and aged in the Luxi County subproject.

The water supply and wastewater subprojects will expand the coverage of the water supply networks, increase network density, update pipes and expand pipe diameter positively.

(4) These subprojects open up new water sources for the project area, and ensure local water supply quality and amount.

New water sources have been opened up in the project area. In the Luxi County subproject, the Shankouyan Reservoir in the upper Yuanhe River is taken as the water source, which prevails over the existing water source in the downtown area in both quality and

---

$^1$ The predicted population of water supply in Luxi County is based on the current population of water supply and the total population in the subproject area.
Improving the way of water use and encouraging residents to save water

Since the project area abounds with water resources, where mountain spring water, surface water and shallow groundwater is easily available and relatively cheap, some residents use water extensively. After centralized water supply is practiced, residents will purchase water. Thus, they will improve the way of water use and explore measures to save water.

The water supply and wastewater subprojects will not only meet residents’ water demand but also build up a sense of water conservation, which will have a far-reaching social influence.

5.4.2 Negative Impacts of the Subprojects

(1) Land acquisition and occupation

3.5 mu of collective land will be acquired for the waterworks in the Luxi County subproject, so that the production pattern, lifestyle and living standard of the residents affected by LA will be affected.

This subproject will cause temporary land occupation during construction due to road excavation for pipeline laying, which will affect residents’ traffic, landscape and ground barrier-free facilities. However, such negative impact will be ended with the completion of construction.

(2) Inimical emotion of vulnerable groups or major water users due to water costs

As mentioned above, water rates are relatively low at present and will rise after the completion of the subprojects, thereby increasing water costs of vulnerable groups or major water users, who will probably develop an inimical emotion, thereby affecting the social benefits of the subprojects.

(3) Adverse impacts resulting from construction

During construction, during earth and rock excavation and backfilling, turbid water and alkaline wastewater will be discharged into the ambient environment. During the operation of construction machinery, oil leakage will often occur, thereby possibly resulting in oil pollution. Domestic sewage produced by the construction staff will also affect water quality. During construction, construction machinery will produce noise pollution, which will affect the ambient environment greatly.

During construction, construction vehicles will make surrounding traffic inconvenient.

In sum, construction will have some negative impacts on local industrial and agricultural production, destroy existing vegetable, aggregate water loss and soil erosion, and affect surrounding traffic. However, these adverse impacts will occur mostly at the early stage of construction, and will be minimized after completion.

(4) Adverse impacts at the operating stage

Wastewater discharge produced in water treatment may affect the environment, water source pollution and pipeline damage may pose risks to drinking water, and the emergency repair of pipelines may result in water outage.

5.5 Social Risk Management

5.5.1 Identification of Social Risks

(1) Possible risks at construction and operating stages

There will be such adverse impacts as temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss and soil erosion at the construction stage. Wastewater discharge produced in water treatment may affect the environment, water source pollution and pipeline damage may pose risks to drinking water, and the emergency repair of pipelines may result in water outage at the operating stage.

(2) Unwilling to connect due to increased water use costs

Some residents are worried about increased water use costs. For special groups, such as the poor or rural culturists with high water consumption, water costs are undoubtedly a
burden, so that their willingness to connect will be reduced.

Table 5-9 Water Costs of Residents in Existing Water Supply Area

<table>
<thead>
<tr>
<th></th>
<th>Water consumption (ton/day)</th>
<th>Basic water rate (yuan/ton)</th>
<th>Sewage treatment charges collected (yuan/ton)</th>
<th>treatment collected</th>
<th>Daily water cost (yuan)</th>
<th>Monthly water cost (yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County</td>
<td>0.18 (per capita)</td>
<td>1.30</td>
<td>0.60</td>
<td></td>
<td>0.342 (per capita)</td>
<td>10.26 (per capita)</td>
</tr>
</tbody>
</table>

Table 5-10 Water cost your family is willing to pay after the completion of water supply facilities (%)

<table>
<thead>
<tr>
<th></th>
<th>5 yuan or less</th>
<th>6-10 yuan</th>
<th>11-15 yuan</th>
<th>16 yuan or more</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County</td>
<td>62.5</td>
<td>20.0</td>
<td>12.5</td>
<td>5.0</td>
<td>100</td>
</tr>
</tbody>
</table>

The survey shows that residents in the proposed range of water supply have a higher average daily water consumption than urban residents, which is probably because they don’t have to pay water costs. After the completion of the water supply facilities, their willingness to pay will be lower (see Table 5-11). The amount that families are willing to pay is mostly less than 10 yuan (82.5%), which is much lower than the water use cost of urban residents in the existing range of water supply, so that some residents in the proposed range of water supply are unwilling to connect to the water supply network. This once occurred in the past, such as Shanxia Village in Luxi County.

[Interview] March 3, 2012, Mr. Wu, culturist, Group 11 of Shankouyan Village, Shangbu Town
Mr. Wu, 38, Han, junior high school education, 7-member family
He raises over 30 pigs now, and would raise 60-70 heads per annum.
Mr. Wu has a high water consumption. Since he uses water for free, he is unwilling to connect to the water supply network in this subproject.
He thinks that mountain spring water is hygienic, safer and healthier than other water, because all villagers are drinking mountain spring water.

In addition, users connecting to the network of the water supply company has to pay relatively high opening and installation fees. Since project publicity is limited to pipeline construction, many residents are not aware of such fees. During the survey, some residents felt that these fees were too high, because the had invested in water supply or well driving and could hardly accept such fees.

(4) A central payment point may be inconvenient for residents
Since many villages covered by the proposed range of water supply are close to urban areas but still at certain distances, it is inconvenient for residents to go to the existing payment points, thereby weakening the social benefits of these subprojects.

(5) There may be a coordination issue when Luxi County and Pingxiang Municipality share a water source.

The new water intake of Luxi County subproject is the Shankouyan Reservoir, which was originally constructed to supply water to Pingxiang Municipality. However, since this reservoir is located in Luxi County, and the Yuanhe River is the water source of the Luxi county town, the Luxi County Government and the Pingxiang Municipal Government agreed that Luxi County may take water from the Shankouyan Reservoir.

Luxi County Water Supply Company has to pay water resource fees to the Shankouyan Reservoir Management Committee based on water amount. This may increase the company’s water supply costs.

In addition, since both localities take water from the Shankouyan Reservoir, there will be a coordination issue when a drought occurs or the reservoir level is low.

(6) Replacement of existing waterworks
Since these subprojects will replace some township waterworks, the resettlement of their workers will become a risk. It is also a risk how to take over their existing users.

(7) Repeated investment due to the abandonment of some existing water delivery pipelines and equipment
Centralized water supply has been realized in 90% of the proposed range of water supply
of the Luxi County subproject, but some pipelines used are outdated and have to be replaced, so that some existing pipelines may be discarded, and some existing equipment is no longer usable.

Thus, there will be repeated investment in some water supply networks and equipment.

5.5.2 Risk Evasion Measures

(1) Strengthen construction and supervision, and minimize adverse impacts during project construction and operation.
(2) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.
(3) A consulting meeting should be conducted with local residents to explain the composition of the water rate in detail so that they can accept the water rate. Preferences should be provided to the poor according to applicable policies. In addition, residents consuming much water are encouraged to use mountain spring water or groundwater as production water, and explore ways of saving water.

[Abstract of policy]
“The rate of sewage treatment fees shall be 0.6 yuan/ton, and groups with special difficulty (defined by reference to subjects of low-rent housing) shall be exempted from sewage treatment fees for two tons per month.”
—Article 2 of the Administrative Measures for the Collection of Sewage Management Charges of Luxi County

(4) Add payment points in central towns within the proposed range of water supply.
(5) Enter into a water use agreement with Pingxiang Municipality and develop a contingency plan.
(6) Resettle the workers of the existing township waterworks properly, and take over their existing users properly.

[Agreement]
Agreement
Party A: Shangbu Town Government, Luxi County
Party B: Luxi County Construction Bureau
Both Parties have agreed as follows in order to improve the water supply situation in Shangbu Town:
1. Party B shall lead the main water supply pipeline into Party A’s jurisdiction by the end of December, and connect with the existing main pipeline of the waterworks. The existing pipeline network of Party A’s waterworks shall be taken over by Party B, which must ensure regular water supply to local enterprises and residents.
2. Party A shall compensate for pipeline material costs of 300,000 yuan in total to Party B at a time.
3. Party A is willing to take over all debts of the waterworks and resettle its workers. The existing pipeline network shall be owned by Party B, and the office of Party A’s waterworks shall be transferred to Party B gratuitously. The former workers shall be employed by Party B with priority under equal conditions.
4. Party B shall collect no opening fees from Party A’s existing users and supply water regularly to them. Party B shall collect water costs at the uniform rate fixed by the price department of Luxi County.
5. After takeover by Party B, the existing waterworks of Shangbu Town shall be renamed as the Second Luxi County Waterworks.
6. Anything unstated herein will be otherwise agreed on between both Parties.
This Agreement is made in quadruplicate and shall come into effect upon execution by both Parties.
November 12, 2004
<table>
<thead>
<tr>
<th>Subproject</th>
<th>Impact</th>
<th>Affected persons</th>
<th>Risks</th>
<th>Evasion measures</th>
</tr>
</thead>
</table>
| Luxi County Water Supply System Improvement Project | Project management during construction and operation | Local residents                   | a. Construction stage: temporary land occupation, excavation, wastewater discharge, noise, inconvenient traffic, vegetation damage, water loss, soil erosion  
b. Operating stage: wastewater discharge, drinking water risk, water outage due to emergency repair | a. Construction supervision and management;  
b. Management and supervision at the operating stage |
| Water costs                                    |                                                 | a. Local residents                | Unwilling to connect to the water supply network due to increased water costs | a. Involve the target groups in this subproject through active publicity and information disclosure, so that they recognize this subproject  
b. Hold a consulting meeting to explain the composition of the water rate in detail  
c. Provide preferences to the poor according to applicable policies  
d. Improving the way of water use and encouraging residents to save water |
| Payment point                                  |                                                 | Local residents                   | A central payment point may be inconvenient for residents | Add payment points in central towns within the proposed range of water supply. |
| New water source                               | Luxi County Water Supply Company                |                              | There may be a coordination issue when Luxi County and Pingxiang Municipality share a water source. | Enter into a water use agreement with Pingxiang Municipality and develop a contingency plan. |
| Replacement of existing waterworks            | a. Existing waterworks  
b. Existing users | a. Workers need to be resettled.  
b. Existing users have to be taken over. | a. Resettle the workers of the existing township waterworks properly.  
b. Take over their existing users properly. | |
| the water supply network                       | a. Luxi County Water Supply Company  
b. Local residents | Repeated investment due to the abandonment of some existing water delivery pipelines and equipment | Utilize existing water delivery pipelines where possible to minimize investment | |
6 Conclusions and Suggestions

6.1 Conclusions

6.1.1 Road Construction and Improvement Subprojects

(1) Promoting local sustainable development
The gap between local traffic conditions and real needs is increasing. The construction of traffic infrastructure will not only improve local traffic conditions and ensure traffic safety, but also improve the local investment environment and promote local economic development.

(2) Local residents support these subprojects
“Constructing roads is a prerequisite to becoming rich” is a belief of local residents, so they support these subprojects strongly, because they will enjoy more convenient traffic conditions and better quality of life, and these subprojects will promote agricultural and industrial development.

(3) Introducing resettlement risks
Displaced persons are directly affected by these subprojects but will not benefit directly therefrom. The socioeconomic survey shows that the displaced persons support these subprojects, provided that they receive reasonable compensation and are resettled properly, so the compensation and resettlement of the displaced persons will be an important task in these subprojects.

(4) Vulnerable groups
Compared to ordinary people, vulnerable groups, such as the elderly, weak, sick, disabled and young, have difficulty in travel, and the improvement of traffic facilities will ensure their traffic safety and improve their quality of life. In addition, these subprojects will provide some job opportunities to them to increase their income.

Few people affected by LA and HD in these subprojects fall into vulnerable groups, and resettlement measures have been proposed for them, so that the impact on vulnerable groups is controllable.

(5) Affecting some enterprises to some extent
Some of these subprojects will involve the relocation of enterprises or affect their operations, and their employees’ traffic and life. This is an issue to be addressed in these subprojects.

(6) The public participation system has been established preliminarily.
During the technical assistance, public participation mechanisms were established for these subprojects, and residents showed great enthusiasm for participation. A common problem is that the affected villages and groups have not participated in the whole project process and are still unclear about some details.

6.1.2 Flood Protection and Drainage Subprojects

(1) These subprojects will improve residents’ livelihoods, and promote local social and economic development
The project counties (cities) have suffered great losses from floods. Floods not only threaten people’s lives and properties, but are also adverse to investment introduction. These subprojects will protect people’s lives and properties and create a better investment environment to promote local economic development.

(2) Local residents support these subprojects
Local residents support these subprojects strongly, because they have personal experiences of economic losses and threats arising from floods. They expect these subprojects to be implemented as soon as possible. Over 90% of the respondents support these subprojects. Their greatest expectation for these subprojects is that construction quality should be ensured. Local residents are willing to be relocated as long as they are compensated reasonably.

(3) LA and HD risk
These subprojects involve a certain amount of LA and HD. For the resettlement risks arising from these subprojects, experienced experts and the consulting agency have prepared the Resettlement Action Plan in accordance with the World Bank’s policies and the applicable state regulations. At the design stage, the SA, resettlement planning, feasibility study and environmental impact assessment agencies minimized resettlement risks.

(4) Drinking water risk
During the construction of the Qinglan Lake subproject, villagers in Shankouyan Village will be unable to use their drinking water wells.

(5) Farmland irrigation risk
The construction of the Qinglan Lake and Yuanhe River subprojects may affect farmland irrigation because their water sources will be affected. Construction should be performed in stages and irrigation facilities protected properly to reduce the impact on farmland irrigation.

(6) Relocation of village clinic
In the Yuanhe River subproject, one village clinic will be relocated and compensated for according to the compensation rate for HD. This subproject will affect the medical care of villagers, but a private clinic in Tantian Village may be a substitution. The boss of the village clinic should be compensated reasonably for his losses in this subproject.

(7) Information disclosure and public participation
All subproject PMOs conducted preparatory public participation, and consulted local authorities and residents on resettlement. Local residents have shown great enthusiasm for participation, but still some of them are not clear about these subprojects. Information disclosure should be further strengthened.

(8) Vulnerable groups
Few people affected by LA and HD in these subprojects fall into vulnerable groups, and resettlement measures have been proposed for them, so that the impact on vulnerable groups is controllable.

At the operating stage, a preferential policy on irrigation costs should be developed for vulnerable groups so that their interests are not harmed.

### 6.1.3 Water Supply and Wastewater Subprojects

(1) These subprojects open up new water sources for the project area, and ensure local water supply quality and amount, such as the Shankouyan Reservoir in the upper Yuanhe River in Luxi County.

(2) These subprojects meet water demand in social development and urbanization.

With the rapid social development and urbanization of China, there is an increasing water demand in the subproject area. These subprojects will just meet such demand.

(3) These subprojects provide safe, hygienic, convenient and ample water supply to residents, and are livelihood projects.

(4) The main risk of these subprojects is how to settle two conflicts properly.

Particular attention should be paid to two conflicts: One is the proper handover or division between the existing waterworks in the project area and those constructed in these subprojects, which may affect the operation of the water supply market and the water use of residents. The other is expenses for connection to the water supply networks constructed in these subprojects for residents in the project area; if this conflict is not settled properly, these subprojects may fail to produce its expected social benefits.

(5) The public participation system has been established preliminarily.

During the survey, residents showed great enthusiasm for participation but they are still unclear about some details, so participation and consultation should still be strengthened.

### 6.2 Suggestions

#### 6.2.1 Road Construction and Improvement Subprojects

(1) Suggestions on reducing resettlement risks
Minimizing resettlement: As discussed above, road routes should be optimized to avoid central residential areas to minimize resettlement.
Developing reasonable resettlement programs: For the resettlement risks arising from these subprojects, experienced experts and the consulting agency have prepared the Resettlement Action Plan in accordance with the World Bank’s policies and the applicable state regulations. However, resettlement programs should be developed in consultation with local residents so as to make resettlement risks controllable.

Selection of resettlement sites: Resettlement sites should be chosen in local villages to preserve social networks; if this is impossible, sites with sound infrastructure and convenient for farming or finding new jobs should be chosen. Resettlement may be conducted in conjunction with new countryside building if available. New houses should be built before existing houses are demolished, and compensation fees should be paid timely to reduce transition risks.

(2) Strengthen public participation
   1) Strengthen coordination between the county (city) PMOs and project villages (communities).
   2) Compensation rates for HD and resettlement activities should be based on adequate public consultation.
   3) Small FGDs should be held to solicit comments on road traffic in order to reach a common understanding.
   4) Conduct information disclosure through TV, newspaper and billboard, etc. to introduce project progress and communicate good traffic practices.

(3) Measures to mitigate environmental impacts during construction
   Measures to mitigate construction impacts: Such impacts should be incorporated into the implementation plan to help residents select alternative traffic options.
   - Reduction of flying dust: Sprinkle water on the spoil surface on sunny and windy days to prevent flying dust, and keep the construction site clean.
   - Construction noise control: Construction should be performed in limited hours of a day, low-noise machinery employed and sound barriers set up around construction sites in order to minimize noise.
   - Restoration of roads and landscaping: Damaged roads and landscaping should be restored as soon as possible after construction.

(4) Strengthening operation management after completion
   The public transit system should be improved after the completion of these subprojects to meet traffic demand and ensure traffic safety.
   - Provision of necessary traffic management facilities: After the completion of a road or bus terminal, the local government should provide necessary traffic management facilities, such as traffic police boxes, to ensure proper operation.
   - Forecast of variation of traffic volume: The local county or city governments should evaluate the impact of these subprojects on the traffic volume of other roads, and adjust manpower and equipment accordingly to maintain regular traffic order.
   - Environmental sanitation: With the completion of new roads, there will be a higher stress on environmental sanitation, so the local governments should construct supporting facilities accordingly.
   - Management system: The improvement of facilities should be supported by the improvement of management systems so that these new facilities can function more effectively.

(5) Protecting the interests of affected enterprises
   Before and after construction, the affected enterprises should be consulted to develop reasonable compensation programs, so as to reduce their losses or resettle their workers if necessary.

(6) Measures and suggestions on poverty relief
   Attention should be paid to the interests of vulnerable groups during construction. Those affected by LA and HD should be resettled in accordance with the Resettlement Action Plan. In addition, poor people able to work may be involved in project construction to increase income and relieve poverty.

the concrete implementation suggestions for every project subproject are shown in the table below 6-1.
<table>
<thead>
<tr>
<th>Project counties</th>
<th>Subproject</th>
<th>Suggestion Type</th>
<th>Suggestion</th>
<th>Actor</th>
<th>Implementation Phase</th>
<th>Monitoring Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yifeng county, Yichun city</td>
<td>Road Network</td>
<td></td>
<td>1) Attention the cross with Tianbao South Road and Dongmen Road. 2) In space permitting, complete the motorway, non-power driven lane and the sidewalk isolation.</td>
<td>Yifeng County Construction Bureau, Yifeng County Planning Bureau,</td>
<td>prior to the construction and construction period</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td></td>
<td>1) Lay along drainage facilities; increase bus station, traffic lights, pedestrian signal lamp; increase the traffic police and monitoring facilities, increase the accessibility of facilities, sidewalk guardrail, arrangement of street lamps. 2) Increase the blind, signs and other facilities; 3) Extend the pedestrian signal lamp time to be convenient for students and the elderly.</td>
<td>Yifeng County Construction Bureau, Yifeng County Planning Bureau,</td>
<td>prior to the construction and construction period</td>
<td>Design and construction quality</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td></td>
<td>1) Manage and maintain the traffic facilities to ensure the normal use; 2) Increase garbage box, bus station and line management, complete good sanitation work to maintain the daily road environment.</td>
<td>Yifeng County Traffic Police Brigade; Yifeng county urban management bureau</td>
<td>later period of construction</td>
<td>Facility maintenance, operation</td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td></td>
<td>1) Increase the monitoring system, traffic signal lights and regulate the citizens’ traffic behavior, the traffic police to maintain traffic order. 2) Establish greening isolation belt to separate the motor vehicle lane, the lane for non-motorized vehicles and the sidewalk. 3) Increase the blind and barrier-free facilities to ensure the disabled and the safety of students.</td>
<td>Yifeng County Traffic Police Brigade; Yifeng county urban management bureau</td>
<td>prior to the construction and later period of construction</td>
<td>Traffic accidents</td>
</tr>
<tr>
<td>Luxi county, Pingxiang</td>
<td>Road Network</td>
<td></td>
<td>1) Note the connection with Yuanhe West Road and Yuanhe Bridge; 2) Plan reasonably the bus stop location and design</td>
<td>Luxi county Construction Bureau,</td>
<td>prior to the construction and construction period</td>
<td>Design and construction index</td>
</tr>
<tr>
<td>Project counties</td>
<td>Subproject Type</td>
<td>Suggestion Type</td>
<td>Suggestion</td>
<td>Actor</td>
<td>Implementatio n Phase</td>
<td>Monitoring Index</td>
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<td>------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>city</td>
<td>Network Improve ment Project</td>
<td>Facilities</td>
<td>1) Spread the blind together; 2) Maintain the green belt and choose the good greening tree species</td>
<td>Luxi County Traffic Police Brigade; Luxi county urban management bureau</td>
<td>prior to the construction and construction period</td>
<td>facility maintenance, operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td>Strengthen the bus station management and coordinate between the buses and social vehicles</td>
<td>Luxi county, Bus company</td>
<td>later period of construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety</td>
<td>1) Build traffic lights in the bridge inlet cross sections; 2) Strengthen the traffic management in school hours and strengthen the students' safety education</td>
<td>Luxi County, Traffic Police Brigade; schools nearby; taxi company</td>
<td>later period of construction</td>
<td>Traffic accidents</td>
</tr>
<tr>
<td>Ganxian county, Ganzhou city</td>
<td>Yiyuan Urban Road Network Improvement Project</td>
<td>Road Network</td>
<td>1) Pavement marking and lane design must be reasonable, perfect, fully considering the needs of all kinds of travel group; 2) Road planning must take care of the overall situation, and combine very well with the existing or the planning road.</td>
<td>Design units</td>
<td>prior to the construction and construction period</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilities</td>
<td>1) Construct the suitable pedestrian channel; 2) Put up the traffic lights in the junction with Ganda Road; 3) Road signs should indicate directions and road names; 4) Complete streetlight facilities</td>
<td>Design units</td>
<td>prior to the construction and construction period</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td>The ushers can help to divert traffic in the Yiyuan village elementary school and kindergarten school.</td>
<td>schools</td>
<td>later period of construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety</td>
<td>1) Strengthen the supervision and punishment of motorcycles and electric cars; 2) Enhance the training and education of motorbikes, electric vehicle owners</td>
<td>Gan County, Traffic Police Brigade;</td>
<td>later period of construction</td>
<td>Traffic accidents</td>
</tr>
<tr>
<td>Gongqing, Jiujiang</td>
<td>Wusi-Junshan Avenue Road Network</td>
<td>Note the connection with other roads</td>
<td></td>
<td>Gongqing city urban and rural construction and</td>
<td>prior to the construction</td>
<td>Design and construction</td>
</tr>
<tr>
<td>Project counties</td>
<td>Subproject Type</td>
<td>Suggestion</td>
<td>Actor</td>
<td>Implementation Phase</td>
<td>Monitoring Index</td>
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<td></td>
</tr>
<tr>
<td>city</td>
<td>Project Facilities</td>
<td>1) Do well the greening work of building roads and suit to the local climate, grass species; 2) pay attention to coordinate the Yuejin dike of water conservancy facilities</td>
<td>transportation Bureau</td>
<td>prior to the construction</td>
<td>index</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manage Safety</td>
<td>Strengthen vehicles traffic management</td>
<td>Gongqing urban environmental protection and ecological construction bureau; Gongqing Urban Forestry Water Authority</td>
<td>later period of construction</td>
<td>Traffic accidents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Network Facilities</td>
<td>1)Strengthen the supervision and punishment of motorcycles and electric cars 2)Enhance the training and education of motorbikes, electric vehicle owners</td>
<td>GongqingCity Traffic Police Brigade;</td>
<td>later period of construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qongqing City urban and rural construction and transportation Bureau</td>
<td>prior to the construction</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Manage Safety</td>
<td>Manage and maintain the road traffic facilities to ensure the normal use of</td>
<td>Gongqing City Traffic Police Brigade;</td>
<td>later period of construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Network Facilities</td>
<td>1)Set up street lamp; 2)Adopt the appropriate greening measures.</td>
<td>Gongqing urban environmental protection and ecological construction bureau;</td>
<td>prior to the construction and construction period</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manage Safety</td>
<td>1)Strengthen the supervision and punishment of motorcycles and electric cars 2)Enhance the training and education of motorbikes, electric vehicle owners</td>
<td>GongqingCity Traffic Police Brigade;</td>
<td>prior to the construction and construction period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qongqing–Suijadian Xiang Highway Project</td>
<td>prior to the construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Project counties</th>
<th>Subproject Type</th>
<th>Suggestion</th>
<th>Actor</th>
<th>Implementation Phase</th>
<th>Monitoring Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng</td>
<td>Road Network</td>
<td>Note the connection with other roads</td>
<td>Gongqing city urban and rural construction and transportation Bureau</td>
<td>prior to the construction and construction period</td>
<td>Design and construction index</td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td>1) Set up street lamp; 2) Adopt the appropriate greening measures.</td>
<td>Gongqing urban environmental protection and ecological construction bureau;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>Manage and maintain the road traffic facilities to ensure the normal use of</td>
<td>Gongqing City Traffic Police Brigade</td>
<td>later period of construction</td>
<td>Traffic accidents</td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td>1) Strengthen the supervision and punishment of motorcycles and electric cars 2) Enhance the training and education of motorbikes, electric vehicle owners</td>
<td>Gongqing City Traffic Police Brigade</td>
<td>construction period</td>
<td></td>
</tr>
<tr>
<td>Gongqingcheng Bus Terminal Project</td>
<td>Road Network</td>
<td>Note the connection with other roads</td>
<td>Gongqing city urban and rural construction and transportation Bureau</td>
<td>prior to the construction</td>
<td>Design and construction index</td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td>1) Perfect traffic shed, stop, waiting chair and public transport facilities; 2) Set urban traffic map in the waiting point.</td>
<td>Bus company</td>
<td>prior to the construction and construction period</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>1) Adjust the bus lines reasonably, especially the time of the first and last buses to railway station; 2) Improve the service attitude; 3) Do well dispatching management of taxi, bus and long-distance passenger vehicle</td>
<td>Bus company</td>
<td>later period of construction</td>
<td>Passengers’ suggestions</td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td>Strengthen the management of the passengers’ specialized channel to avoid accidents</td>
<td>Bus company</td>
<td>later period of construction</td>
<td>Traffic accidents</td>
</tr>
</tbody>
</table>
6.2.2 Flood Protection and Drainage Subprojects

(1) Resettling the residents affected by HD rationally
Resettlement sites should be close to farmland and infrastructure, and be convenient in traffic. Compensation for those affected by HD should be made available timely.

(2) Resettling residents affected by LA rationally
For those affected by LA, rational compensation and social security mechanisms should be designed to ensure their livelihoods.

(3) Handling temporarily occupied land properly
The land temporarily occupied during the construction these subprojects should be compensated for reasonably in consultation with the affected households, and restored properly so that the affected households can resume production.

(4) Solving the drinking water problem properly
In the Qinglan Lake subproject, the affected villagers may share drinking water with other villagers, or new wells may be driven in the village to meet the demand for drinking water. In whichever manner, coordination among villagers should be performed properly to avoid any dispute over drinking water.

(5) Solving the farmland irrigation problem properly
Construction should be performed in stages and irrigation facilities protected properly so that regular irrigation is ensured during construction.

(6) Resettling the village clinic properly
The clinic in Shankouyan Village to be relocated for the Yuanhe River subproject should be rebuilt elsewhere in the village to provide convenient medical services to villagers.

(7) Performing subsequent operation management properly
Subsequent flood bank management must be performed properly so that the flood bank is kept safe and functions effectively.

the concrete implementation suggestions on every project subproject are shown in the table below.
<table>
<thead>
<tr>
<th>Project counties</th>
<th>Subproject</th>
<th>Suggestion Type</th>
<th>Suggestion</th>
<th>Actor</th>
<th>Implementation phase</th>
<th>Monitor control index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jinxian County Nanchang City</strong></td>
<td>Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project</td>
<td>Facilities</td>
<td>Protect existing irrigation and drainage pumping stations around QingLan lake, and taking section construction to reduce the influence of the villagers' farmland irrigation.</td>
<td>PMO. Executive Units, Jinxian County Water Authorities</td>
<td>prior to the construction and construction period</td>
<td>the quantity and content to the project construction influence from villagers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transportation</td>
<td>1) manage on large vehicle traffic strictly 2) arrange the pile poin of construction materials and casting to reduce occupancy of traffic road on both sides of Qinglan Lake 3) establish construction warning sign in the intersection</td>
<td>Executive Units, Jingxian county RTA</td>
<td>construction period</td>
<td>1) the quantity and content to the project construction influence from villagers 2) traffic condition monitoring record from Jingxian county RTA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td>1) Reduce the occupancy of water area belonging to QingLan lake fishery because of engineering casting corresponding 2) complete piers management organization setup 3) Strengthen flood protection propaganda to township and village through television, network, broadcasting and issued publicity material etc to</td>
<td>Executive Units, PMO., town government, The village committee</td>
<td>construction period and later period of construction</td>
<td>1) document from Project units 2) appeal suggestion list number of copies, main content and dealing with the results from Project units 3) Piers management monitoring annual report</td>
</tr>
<tr>
<td><strong>Luxi County PingXiang City</strong></td>
<td>Luxi County Yuanhe River Flood Bank Ecological Management Project</td>
<td>Facilities</td>
<td>1) install reservoir and well in ShangBu village and lie pipe reasonably to ensure the potable water available 2) build garbage disposal point in LuXi Town Shangxia Village based on reasonable site testing 3) protect existing irrigation ditch on</td>
<td>PMO. Luxi county construction bureau, Luxi County Water Authorities</td>
<td>prior to the construction and construction period</td>
<td>1) Design and construction quality 2) the quantity and content to the project construction influence from villagers 3) processing records of Complaint telephone</td>
</tr>
<tr>
<td>Project counties</td>
<td>Subproject</td>
<td>Suggestion Type</td>
<td>Suggestion</td>
<td>Actor</td>
<td>Implementation phase</td>
<td>Monitor control index</td>
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<td></td>
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<td></td>
<td>YuanHe and make the dam connections and Shankouyan village connection can work 4) reduce the influence on the villagers' farmland irrigation by section construction</td>
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<tr>
<td>Transportation</td>
<td></td>
<td></td>
<td>1) manage on large vehicle traffic strictly 2) arrange the pile point of construction materials and casting to reduce occupancy of traffic road on both sides of Yuanhe 3) establish construction warning sign in the intersection</td>
<td>Luxi County construction bureau, Luxi County RTA</td>
<td>construction period</td>
<td>1) the quantity and content to the project construction influence from villagers 2) traffic condition monitoring record from Luxi county RTA</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td>1) complete piers management organization setup 2) Strengthen flood protection propaganda to township and village through television, network, broadcasting and issued publicity material etc to 3) establish warning sign”NO Sand mining” in the intersection of Jinzi bridge and Dongzhou bridge</td>
<td>PMO, town government, The village committee, Luxi County construction bureau</td>
<td>later period of construction</td>
<td>1) document from Project units 2) appeal suggestion list number of copies, main content and dealing with the results from Project units 3) Piers management monitoring annual report</td>
</tr>
</tbody>
</table>
6.2.3 Water Supply and Wastewater Subprojects

(1) Disclose project information thoroughly, and communicate the project benefits through diverse media to involve the target groups in this subproject so that they further accept the objectives of this subproject and finally recognize this subproject.

(2) Proper handover between existing waterworks and future water suppliers
   This should be done through consultation between competent authorities to ensure steady handover on a fair and open basis.

(3) Proper connection of local residents into new water supply networks
   The water supplies should make extensive publicity and provide relevant services to residents. Residents should be persuaded to join in the water supply networks but on a voluntary basis.

   the concrete implementation suggestions on every project subproject are shown in the table below.
<table>
<thead>
<tr>
<th>Project counties</th>
<th>Subproject</th>
<th>Suggestion Type</th>
<th>Suggestion</th>
<th>Actor</th>
<th>Implementation Phase</th>
<th>Monitoring Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County</td>
<td>Luxi County Water supply</td>
<td>Project</td>
<td>1) make the freedom of information, carry out proactive propaganda, and mobilize the target group to participate into the project, so that they can approve it; what’s more, we should hold consultative conference, make an explanation about water price composition in detail. 2) Ensure success in the compensation of Land Expropriation &amp; Requisition; plan to involve villagers whose land has been expropriated in the construction of the water plant. 3) Negotiate with Pingxiang government and sign a detailed water-using agreement and make emergency plans at the same time. 4) Properly handle the transfer of the customers of the old water plant</td>
<td>PMO、Luxi County Water Supply Company</td>
<td>prior to the construction and construction period</td>
<td>1) the number and content of complaints about the influence of the project execution 2) the population of the village in the project, male-female ratio, the percentage of people in poverty, the amount of wages</td>
</tr>
<tr>
<td>PingXiang City</td>
<td>system improvement project</td>
<td>Preparation</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Constructions</td>
<td>1) improve project administration and supervision during construction 2) improve project administration and supervision during operation, prepare warning plans so as to announce danger in time</td>
<td>PMO、Luxi County Water Supply Company</td>
<td>construction period</td>
<td>Plans and standards of the project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Operations</td>
<td>1) establish more water-rate-collecting places in the central town of new water supply areas. 2) make full use of previous water pipes during installation and try to reduce residents’ expenses on water supply facilities. 3) provide proper help to people in poverty in accordance with related policies, encourage diversified water-using ways, encourage the exploration of water-saving ways</td>
<td>Luxi County Water Supply Company, Luxi County Civil Affairs Bureau, Luxi County Price Control Administration</td>
<td>later period of construction</td>
<td>1) The number of the complaint forms of the village committee 2) phone records of complaint solutions 3) annual monitoring report</td>
</tr>
</tbody>
</table>
## Appendix 1—Summary of SA Participants

### (1) Road construction and improvement subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project</td>
<td>Mr. Cai, villager, Yaoqian Village&lt;br&gt;Mr. Cai, CPC branch secretary, Yaoqian Village&lt;br&gt;Mr. Zhou, head, Taxia Farm&lt;br&gt;Mr. Li, CPC branch secretary, Taxia Farm&lt;br&gt;Ms Gong, teacher, Taxia Kindergarten&lt;br&gt;Ms Wang, resident, near Farm Bridge</td>
</tr>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>Mr. Wang, Chief Engineer, construction bureau&lt;br&gt;Mr. Liu, head, Shanxia Village&lt;br&gt;Mr. Feng, villager, Shanxia Village&lt;br&gt;Mr. Liu, villager, Shanxia Village&lt;br&gt;Driver, development and reform commission&lt;br&gt;Mr. Liu, resident, the Yuanhe River</td>
</tr>
<tr>
<td>Yiyuan Avenue – Ganchang Highway Connecting Road Project in Yiyuan New District, Ganxian County</td>
<td>Mr. Peng, staff member, traffic bureau&lt;br&gt;Mr. Qiu, staff member, traffic bureau&lt;br&gt;Mr. Zeng, CPC branch secretary, Yiyuan Village&lt;br&gt;Mr. Liu, deputy CPC branch secretary, Yiyuan Village&lt;br&gt;Mr. Liu, resident, Yiyuan Village&lt;br&gt;Mr. Zeng, resident, Yiyuan Village&lt;br&gt;Ms Huang, head, Datian Xiang&lt;br&gt;Mr. Lu, resident, Laowuchang, Datian Xiang&lt;br&gt;Ms Zhong, resident, Laowuchang, Datian Xiang</td>
</tr>
<tr>
<td>Qongqingcheng Wusi-Junshan Avenue Project</td>
<td>Mr. Hu, Deputy Director-general, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zou Shibin, Section Chief, Gongqingcheng City Economic Development Bureau</td>
</tr>
<tr>
<td>Qongtingcheng – Suijadian Xiang Highway Project</td>
<td>Mr. Hu, Deputy Director-general, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zou Shibin, Section Chief, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zha, CPC branch secretary, Suijadian Xiang&lt;br&gt;Mr. Huang, assistant of head, Suijadian Xiang</td>
</tr>
<tr>
<td>Fenghuang Village, Jinhu Town – Zequan Xiang Highway Project in Gongqingcheng</td>
<td>Mr. Hu, Deputy Director-general, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zou Shibin, Section Chief, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Kuang, head, Zequan Xiang&lt;br&gt;Mr. Zhou, CPC branch secretary, Zequan Xiang&lt;br&gt;Mr. Li, head, Tushan Village</td>
</tr>
<tr>
<td>Gongqingcheng Bus Terminal Project</td>
<td>Mr. Hu, Deputy Director-general, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zou Shibin, Section Chief, Gongqingcheng City Economic Development Bureau&lt;br&gt;Mr. Zhang, Manager, Gongqingcheng City Coach Company&lt;br&gt;Mr. Xie, Manager, Gongqingcheng City Coach Company&lt;br&gt;Mr. Zeng, member, Traffic Division, Construction Bureau&lt;br&gt;Mr. Gui, Taxi driver, Gongqingcheng City&lt;br&gt;Ms Zhang, 43, waiter, bus stop&lt;br&gt;Mr. Hu, 22, waiter, bus stop&lt;br&gt;Ms Xu, 21, waiter, bus stop</td>
</tr>
</tbody>
</table>

### (2) Flood protection and drainage subprojects

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jinxian County Qinglan Lake (Enclosed) Flood Control Construction</td>
<td>Mr. Zhou, 70, villager, Sixia Group, Tagang Village, Luoxi Town&lt;br&gt;Mr. Zhou, 48, fish culturist, Sixia Group, Tagang Village, Luoxi Town&lt;br&gt;Ms Li, 33, villager, Huxia Group, Tagang Village, Luoxi Town</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Project</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County Yuanhe River East Urban Road Network Improvement Project</td>
<td>Mr. Chen, 40, grocery owner, Group 5 of Xiashan Village, Luxi Town; Mr. Luo, 42, head, Xiashan Village Committee, Luxi Town; Mr. Zhang, 38, head, Tantian Village, Luxi Town; Mr. Xu, 35, villager, Tantian Village, Luxi Town; Ms Chen, 47, villager, Shankouyan Village, Shangbu Town; Mr. Chen, 50, grocery owner, Shankouyan Village, Shangbu Town; Ms Wang, 32, villager, Tantian Village, Shangbu Town</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subproject</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxi County Town and Surrounding Villages Safe Drinking Water Project</td>
<td>Mr. Zhang, Deputy Director, county development and reform commission (county PMO); Mr. Liu Cihua, Manager, Luxi Water Supply Company; Mr. Yao Gang, Deputy Manager, Luxi Water Supply Company; Ms Chen, 36, villager, Group 11 of Shankouyan Village; Mr. Wu, 38, villager, Group 11 of Shankouyan Village; Mr. Liu, non-local businessman, Shankouyan Village; Mr. Yu, CPC branch secretary, Shankouyan Village; Mr. Zhong, CPC branch member, Shankouyan Village; Mr. Zhou and his family, villager, Group 12 of Shankouyan Village; Village official, Group 12 of Shankouyan Village</td>
</tr>
</tbody>
</table>

(3) Water supply and wastewater subprojects
Appendix 2—Summary of Interview Outlines

(1) Road construction and improvement subprojects

1) FGD on road construction and improvement subprojects

[Residents]
Interviewees: nearby residents, and other residents that may use these roads or bridges
A. Family information
   Family population, employment, income, housing
B. Present situation and impacts
   Road maintenance, impact on life, impact on work, impact on children’s education
C. Attitude of residents to the subproject
   Awareness of the subproject
   Possible benefits and adverse impacts of the subproject
   Financial consideration of HD
   Employment after relocation
   —Will the former job be lost?
   —Is it convenient to go to work?
   Compensation for land occupation
   Comments and suggestions on the subproject
D. Marginal groups/the poor
   Special difficulty encountered
   Impacts of the subproject and measures to reduce negative impacts
   Related social security measures

[Government]
Interviewees: construction bureau, civil affairs bureau, traffic bureau, affected township governments
Population (ethnic group, gender, age structure), economic profile (income, output value, industrial structure)
   Present situation and development of traffic volume
   Alternative traffic during construction
   Possible benefits of the subproject
   Possible conflicts arising from the subproject and solution
   Impact on present traffic distribution after the completion of the subproject
   How to ensure the successful implementation of the subproject? Is there a contingency plan?
   How to ensure that the subproject functions as expected after completion?

2) FGD on the Gongqingcheng Bus Terminal Project

[Residents]
A. Residents’ life
   Family population, employment, income, means of transportation, traffic difficulty and solution
B. Impacts of the subproject
   Awareness of the subproject and degree of acceptance of the subproject
   Possible benefits and adverse impacts of the subproject
C. Marginal groups/the poor
   Special difficulty encountered
   Impacts of the subproject and measures to reduce negative impacts
   Related social security measures

[Government]
Population (ethnic group, gender, age structure), economic profile (income, output value, industrial structure)
   Present situation and development of traffic volume
   Layout of coach station and bus stops
   Division of labor in traffic facility management
   Possible benefits of the subproject
   Possible conflicts arising from the subproject and solution
   How to ensure the successful implementation of the subproject? Is there a contingency plan?
plan?
Will there be an effective management system after the completion of the subproject?
How to ensure that the subproject functions as expected after completion?

[Drivers]
Passenger volume
Conflict among different types of traffic
Prominent problems, symptoms and root causes
Possible solution
Benefits of the subproject

(2) Flood protection and drainage subprojects
[Residents in Luoxi Town, Qili Xiang and Qianfang Town]
1. Representatives of ordinary residents near Qinglan Lake
   ① Family population, land, agricultural/nonagricultural employment, housing, traffic
   conditions, leisure (demand for green spaces)
   - Impacts of floods in Qinglan Lake
   - Perception of pollution of Qinglan Lake
   - Perception of wetland protection of Qinglan Lake
   - Utilization of farmland around Qinglan Lake
   - Demand for construction of round-Qinglan Lake road
   - Current road conditions around Qinglan Lake
   - Possible impacts of the subproject on you
   - Comments and suggestions on the subproject

2. Villagers affected by LA and HD
   ① Awareness of the subproject
   ② Possible impacts of the subproject
   ③ Awareness of HD program
   ④ Attitude to compensation for HD
   ⑤ Ideas about new dwelling site
   ⑥ Financial consideration of HD
   ⑦ Expected change in housing
     - Self-construction / purchase
     - Where to purchase?
   ⑧ Relations with neighborhood
   ⑨ Attitude to past LA and HD
   ⑩ Livelihood consideration after LA
   ⑪ Employment after relocation
   ⑫ Comments and suggestions on the subproject

3. Representatives of fish culturists
   ① Family population, land
   ② Fishery production
   ③ Awareness of the subproject
   ④ Perception of impacts of the subproject
   ⑤ Comments and suggestions on the subproject

[Government]
① Floods of Qinglan Lake in recent years
② Problems in flood protection
③ How to minimize LA and HD, and wetland destruction?
④ How to avoid affecting residents’ traffic during construction?
⑤ Impacts of mountain sealing and prohibition of grazing on farmers’ life and income;
How to minimize adverse impacts?
① Possible environmental issues arising from the subproject and solution
② Problems encountered in the subproject
③ How to ensure the successful implementation of the subproject?
④ Is there any contingency plan during the implementation of the subproject (e.g., factory
pollution during or after construction)?
[Residents in the county town]
- Awareness of the subproject
  - Domestic water consumption of residents
- Are you worried about the safety of drinking water? Known diseases related to drinking water
  - Are you confident in the water source?
  - Has it been polluted?
  - Comments and suggestions

(3) Water supply and wastewater subprojects

[Water supply company, water resources bureau]
Overall water supply layout, water supply layout affected by the subproject
Main modes of water use
Existing types of water—domestic water, production water, administrative water, commercial water, water for special industries (bath, carwash)—consumption
Water quality of former and new water sources, waterborne diseases
[For Luxi County] If the Shankouyan Reservoir is chosen as the water source, how to balance water supply with Pingxiang Municipality? Impact on reliance on the Shankouyan Reservoir and how to eliminate such impact
What will the water cost be after the completion of the water supply network or waterworks? How will the water rate be fixed? How much will it be different from those in other parts of the city?
How to involve all circles of society in the subproject? How are public hearing, press conference and TV/broadcast/newspaper publicity made? How effective it is?
Perception of issues and risks in the construction and management of the subproject
Is there any contingency plan? E.g., how to ensure that the water source is not polluted and how to ensure uninterrupted water supply during construction?
Suggestions on the subproject
[Urban and rural residents in water supply area and the subproject area]
Current water use mode, consumption and convenience
Is there tight water supply? If yes, how big the gap is?
Do you have idea about the safety of drinking water? How to ensure safety?
How much is the water rate? Mode of water cost collection
Expected water cost after the completion of the waterworks, willingness to pay
Are you aware of the subproject? How did you know about it? How will you participate in the subproject?
Suggestions on the subproject
Appendix 3—Summary of Questionnaire Surveys

Survey of the Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project (Yifeng County Yuanming Bridge – National Highway 320 Connecting Road Project)

| Time of interview: ____________ |
| Current address: No. ______, ______ Community (Village) Committee, ______ Sub-district (Town), ______ District |

1. Basic information of respondent (fill in directly):
   - Sex: M/F
   - Age: ______
   - Ethnic group: ______
   - Educational level: ______
   - Occupation: ______
   - Place of work: Within / outside the county
   - Family population: ______

2. Your household income in 2011: ______ yuan

3. Your household income as compared to neighborhoods
   - (1) Very good; (2) Good; (3) Neither; nor; (4) Bad; (5) Very bad

4. Is your family entitled to government care, such as minimum living security or subsidy for household in difficulty?
   - (1) Yes; (2) No

5. Your family’s daily expenditure last year was ______ yuan (excluding unconventional expenditure, e.g., housing purchase)

5.1 In which food expenses were (including cigarettes and beverages) ______ yuan

6. Is your house owned or leased? (1) Owned; (2) Leased

7. The size of your housing is ______ m²

8. Your housing structure
   - (1) Reinforced concrete; (2) Mixed; (3) Masonry timber; (4) Other

9. Is there a bridge between the north and south parts of the county town?
   - (1) Yes; (2) No

10. If yes, is it safe?
    - (1) Very safe; (2) Safe; (3) Neither; nor; (4) Unsafe; (5) Very unsafe

11. Which problems does the existing bridge have? (Multiple choices)
    - (1) Very good, no problem; (2) Small bearing capacity; (3) Irrational route design; (4) Infirm, likely to be damaged by floods; (5) Uneven; (6) Too narrow; (7) No non-motorized vehicle lane, unsafe; (8) Disorderly traffic; (9) Traffic jam; (10) No traffic sign; (11) Other

12. Are you satisfied with the bridge and road across the river?
    - (1) Very satisfied; (2) Somewhat satisfied; (3) Neither; nor; (4) Dissatisfied

13. What do you think of traffic conditions?
    - (1) Very good; (2) Good; (3) Neither; nor; (4) Poor; (5) Very poor

14. What traffic inconveniences do you have? (Multiple choices)
    - (1) Nothing inconvenient; (2) Bad bridge; (3) Road not wide enough; (4) Uneven road; (5) Disorderly traffic; (6) Traffic jam; (7) Irrational route; (8) Other

15. Which of the following safety facilities are available on existing roads? (Multiple choices)
    - (1) Guardrail; (2) Vehicle lane; (3) Traffic signal; (4) Fence; (5) Blind lane; (6) Sidewalks; (7) Barrier-free facility; (8) Non-motorized vehicle lane

16. How are existing roads landscaped?
    - (1) Good; (2) Neither; nor; (3) Poor; (4) No

17. Do you wish this road to be built?
    - (1) Strongly; (2) Somewhat; (3) Hardly; (4) No

18. Is this road important for your family?
    - (1) Very important; (2) Fairly important; (3) Not quite important; (4) Not important at all

19. Will this road (bridge) be beneficial to your family?
    - (1) Yes; (2) No; (3) Don’t know

20. How will this road (bridge) benefit your family? (Multiple choices)
    - (1) Easier to go to/from work; (2) Easier to go to/from school; (3) Easier to do business; (4) Easier to work outside; (5) Doing business nearby; (6) More chances of outing; (7) Other ______

21. How will this subproject affect you adversely? (Multiple choices)
    - (1) No adverse impact; (2) Affecting traffic during construction; (3) Other

22. After the completion of this subproject, how will traffic volume change?
    - (1) Much more; (2) A little more; (3) Unchanged; (4) Less

23. How often do you cross this bridge in daily life?
    - (1) Every day; (2) Often; (3) Occasionally; (4) Never

24. Do you think it necessary to build Yuanming Bridge?
(1) Yes; (2) No; (3) Don’t know
25. How often do you cross the new connecting road in daily life?
   (1) Every day; (2) Often; (3) Occasionally; (4) Never
26. If a new road is built, what traffic facility will you need to cross the road?
   (1) Underpass; (2) Overpass; (3) Crosswalk; (4) Other
27. Have you heard of the construction of this road in our county?
   (1) Yes, from TV, broadcast, newspaper, Internet
   (2) Yes, from the government (including community/village committee)
   (3) Yes, from relatives, friends
   (4) Yes, other, specify
   (5) Don’t know until this survey
28. In general, do you support the construction of this road?
   (1) Yes; (2) No; (3) Don’t care
29. In your opinion, which points need special attention in the bridge design?
30. To whom will you usually raise any suggestion or complaint about this subproject?
   (1) Government; (2) Sub-district office/community/village committee; (3) Neighbor; (4) Construction agency; (5) Other
31. Which member of your family would attend any meeting about this subproject?
   (1) Senior; (2) Junior; (3) Myself; (4) Spouse; (5) Other
32. What comments and suggestions do you have about the construction of this road?
33. Do you have any special difficulty to be solved?

Survey of the Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project
[Luxi County, Ganxian County, Gongqingcheng City]

Time of interview: ____________
Current address: No. ________, ________ Community (Village) Committee, ________ Sub-district (Town), ________ District

1. Basic information of respondent (fill in directly):
   Sex: M/F  Age: ______  Ethnic group: ______  Educational level: ______
   Occupation: ______  Place of work: Within / outside the county  Family population: ______
2. Your household income in 2011: ______ yuan
3. Your household income as compared to neighborhoods
   (1) Very good; (2) Good; (3) Neither, nor; (4) Bad; (5) Very bad
4. Is your family entitled to government care, such as minimum living security or subsidy for household in difficulty?
   (1) Yes; (2) No
5. Your family’s daily expenditure last year was ______ yuan (excluding unconventional expenditure, e.g., housing purchase)
5.1 In which food expenses were (including cigarettes and beverages) ______ yuan
6. Is your house owned or leased? (1) Owned; (2) Leased
7. The size of your housing is ______ m²
8. Your housing structure
   (1) Reinforced concrete; (2) Masonry concrete; (3) Masonry timber; (4) Other
9. Are you satisfied with the existing road?
   (1) Very satisfied; (2) Somewhat satisfied; (3) Neither, nor; (4) Dissatisfied
10. Which of the following safety facilities are available on existing roads? (Multiple choices)
    (1) Guardrail; (2) Vehicle lane; (3) Traffic signal; (4) Fence; (5) Blind lane; (6) Sidewalks; (7) Barrier-free facility; (8) Non-motorized vehicle lane; (9) None
11. How is the road landscaped?
   (1) Good; (2) Neither, nor; (3) Poor; (4) No
12. What traffic inconveniences do you have?
    (1) Nothing inconvenient; (2) Bad bridge; (3) Road not wide enough; (4) Uneven road; (5) Disorderly traffic; (6) Traffic jam; (7) Irrational route; (8) Other
13. Is this road important for your family?
    (1) Very important; (2) Fairly important; (3) Not quite important; (4) Not important at all
14. Do you expect this road to be constructed?
    (1) Strongly; (2) Somewhat; (3) Hardly; (4) No
15. Will this road be beneficial to your family?
    (1) Yes; (2) No; (3) Don’t know
16. How will this road benefit your family? (Multiple choices) 
(1) Easier to go to/from work; (2) Easier to go to/from school; (3) Easier to do business; (4) Easier to work outside; (5) Doing business nearby; (6) More chances of outing; (7) More convenient daily traffic; (8) Other

17. Have you heard of the construction of this road in our county? 
(1) Yes, from TV, broadcast, newspaper, Internet 
(2) Yes, from the government (including community/village committee) 
(3) Yes, from relatives, friends 
(4) Yes, from others in the village/community 
(5) Yes, other, specify 
(6) Don’t know until this survey

18. Do you support the construction of this road? 
(1) Yes; (2) No; (3) Don’t care

19. How will this subproject affect you adversely? (Multiple choices) 
(1) No adverse impact; (2) Affecting traffic during construction; (3) Land occupation, reduced income; (4) Other

20. After the completion of this subproject, how will traffic volume change? 
(1) Much more; (2) A little more; (3) Unchanged; (4) Less

21. How often do you go across the road in daily life? 
(1) Every day; (2) Often; (3) Occasionally; (4) Never

22. If a new road is built, what traffic facility will you need to cross the road? 
(1) Underpass; (2) Overpass; (3) Crosswalk; (4) Other

23. After the completion of this subproject, will vehicle noise affect your life? How should it be made acceptable? 

24. What suggestions do you have on streetlamp installation? 

25. To whom will you usually raise any suggestion or complaint about this subproject? 
(1) Government; (2) Sub-district office/community/village committee; (3) Neighbor; (4) Construction agency; (5) Other

26. Which member of your family would attend any meeting about this subproject? 
(1) Senior; (2) Junior; (3) Myself; (4) Spouse; (5) Other

27. What comments and suggestions do you have about the construction of this road? 

28. Do you have any special difficulty to be solved?

Survey of the Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project (bus terminal) 

| Time of interview: ____________ | 
| Current address: No. _____, _____ Community (Village) Committee, _____ Sub-district (Town), _____ District | 

1. Basic information of respondent (fill in directly): 
   - Sex: M/F 
   - Age: _______ 
   - Ethnic group: _______ 
   - Educational level: _______ 
   - Occupation: _______ 
   - Place of work: Within / outside the county 
   - Family population: _______

2. Your household income in 2011: ______ yuan

3. Your household income as compared to neighborhoods 
   (1) Very good; (2) Good; (3) Neither, nor; (4) Bad; (5) Very bad

4. Is your family entitled to government care, such as minimum living security or subsidy for household in difficulty? 
   (1) Yes; (2) No

5. Your family’s daily expenditure last year was ______ yuan (excluding unconventional expenditure, e.g., housing purchase)

5.1 In which food expenses were (including cigarettes and beverages) ______ yuan

6. Is your house owned or leased? (1) Owned; (2) Leased

7. The size of your housing is ______ m²

8. Your housing structure 
   (1) Reinforced concrete; (2) Mixed; (3) Masonry timber; (4) Other

9. Do you take buses at a fixed stop? 
   (1) Yes; (2) No

10. Are buses punctual in general? 
   (1) Yes; (2) No; (3) Not sure

11. Is it convenient to take a bus? 
   (1) Yes; (2) No

12. When you need a taxi, can you meet or contact one timely?
(1) Yes; (2) No; (3) Not sure
13. Are buses or taxies parking on roads?
   (1) Yes, much; (2) Yes, little; (3) No
14. Does the coach that you know have any fixed stop?
   (1) Yes; (2) No; (3) Not clear
15. Does the coach that you know have any regular schedule?
   (1) Yes; (2) No; (3) Not clear
16. Are you satisfied with traffic planning and scheduling in Gongqingcheng City?
   (1) Very satisfied; (2) Somewhat satisfied; (3) Neither, nor; (4) Dissatisfied
17. Is traffic convenient for you?
   (1) Yes; (2) No
18. Have you heard of the construction of the bus terminal in our county?
   (1) Yes, from TV, broadcast, newspaper, Internet
   (2) Yes, from the government (including community/village committee)
   (3) Yes, from relatives, friends
   (4) Yes, other, specify
   (5) Don’t know until this survey
19. Do you think it necessary to build the bus terminal?
   (1) Yes; (2) No; (3) Don’t know
20. Is the bus terminal important for your family?
   (1) Very important; (2) Fairly important; (3) Not quite important; (4) Not important at all
21. If a fixed bus terminal is to be built, will traffic be more convenient for you in the future?
   (1) Yes; (2) The same as before; (3) More inconvenient; (4) Not clear
22. Will the bus terminal be beneficial to your family?
   (1) Yes; (2) No; (3) Don’t know
23. How will the bus terminal benefit your family? (Multiple choices)
   (1) Easier to go to/from work; (2) Easier to go to/from school; (3) Easier to do business; (4) Easier to work outside; (5) Doing business nearby; (6) More chances of outing; (7) More convenient daily traffic; (8) Other
24. How will this subproject affect you adversely? (Multiple choices)
   (1) No adverse impact; (2) Affecting traffic during construction; (3) Losses from house demolition; (4) Land occupation, reduced income; (5) Other
25. To whom will you usually raise any suggestion or complaint about this subproject?
   (1) Government; (2) Sub-district office/community/village committee; (3) Neighbor; (4) Construction agency; (5) Other
26. Which member of your family would attend any meeting about this subproject?
   (1) Senior; (2) Junior; (3) Myself; (4) Spouse; (5) Other
27. Do you have any special difficulty to be solved?
28. What comments and suggestions do you have about the bus terminal?

**Survey of the Jinxian County Qinglan Lake (Enclosed) Flood Control Construction Project**

Time of interview: ____________
Current address: No. ______, ______ Community (Village) Committee, ______ Sub-district (Town), ______
District

1. Basic information of the respondent and family members (please fill in numbers): Your family has ______ members in total.

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Relation with the respondent: (1) Myself; (2) Spouse; (3) Parent / parent-in-law; (4) child; (5) brother /
sister; (6) grandchild / grandchild-in-law; (7) Grandparent; (8) Other; (9) Non-relative
Gender:(1) Male; (2) Female
Educational level:(1) Primary school or below; (2) Junior high school; (3) Senior high school; (4) Secondary technical school; (5) College student; (6) College graduate; (7) Master’s degree or above
Occupation:(1) State-owned enterprise; (2) Private enterprise; (3) Civil servant; (4) Self-employer; (5) Casual labor; (6) Peddler; (7) Babysitter; (8) Housewife; (9) Student; (10) Retiree; (11) Unemployed; (12) Sick / disabled; (13) Farmer; (15) Culturist (fishery); (16) Culturist (non-fishery); (17) Flower/tree cultivator; (18) Forest/fruit cultivator; (19) Other
Place of work: (1) In the county; (2) Out of the county
2. Your household income in 2011: ______ yuan
3. Your household income as compared to neighborhoods
(1) Very good; (2) Good; (3) Neither, nor; (4) Bad; (5) Very bad
4. Is your family entitled to government care, such as minimum living security or subsidy for household in difficulty?
(1) Yes; (2) No
5. Your family’s daily expenditure last year was ______ yuan (excluding unconventional expenditure, e.g., housing purchase)
In which food expenses were (including cigarettes and beverages) ______ yuan
6. Is your house owned or leased? (1) Owned; (2) Leased
7. The size of your housing is ______ m²
8. Your housing structure
(1) Reinforced concrete; (2) Mixed; (3) Masonry timber; (4) Other
9. Has your family hit by floods in Qinglan Lake?
(1) Yes; (2) No; (3) Not clear
9.1 Which types of losses have you suffered?
(1) Farmland inundation; (2) House damage; (3) Livestock loss; (4) Other
9.2 Please estimate your family’s total economic losses: ______ yuan
9.3 Has your family participated in flood protection in Qinglan Lake?
(1) No; (2) Yes, contributing labor; (3) Yes, contributing money; (4) Yes, contributing both labor and money
10. What is Qinglan Lake being used? (Multiple choices)
(1) As a water source; (2) As a scenic spot; (3) As a place of cultivation; (4) As a cultivation farm; (5) Other
11. What are the sources of your family’s domestic water? [Multiple choices]
(1) Bottled water; (2) Municipal supply; (3) Self-provision; (4) Pond; (5) Other
12. Is it convenient to use water?
(1) Very convenient; (2) Fairly convenient; (3) Neither, nor; (4) Not quite convenient; (5) Very inconvenient
13. Is drinking water hygienic?
(1) Very hygienic; (2) Fairly hygienic; (3) Neither, nor; (4) Unhygienic; (5) Very unhygienic
14. Is traffic around Qinglan Lake convenient?
(1) Very convenient; (2) Fairly convenient; (3) Neither, nor; (4) Not quite convenient; (5) Very inconvenient
15. Are roads around Qinglan Lake safe?
(1) Very safe; (2) Fairly safe; (3) Neither, nor; (4) Not quite safe; (5) Very unsafe
16. Is it necessary to construct this subproject?
(1) Very necessary; (2) Necessary; (3) Unnecessary
17. If LA and HD is necessary for this subproject, will you agree?
(1) Yes; (2) No; (3) Not clear
18. How will this subproject benefit you?
(1) Less floods; (2) Higher sense of safety; (3) More convenient traffic; (4) Better environment; (5) Other
19. Will this subproject affect you adversely?
(1) No adverse impact; (2) Affecting traffic during construction; (3) Financial losses from HD; (4) Less income due to land occupation; (5) Other
20. In general, do you support this subproject?
(1) Yes; (2) No; (3) Not clear
21. Are you satisfied with the existing flood protection facilities of Qinglan Lake?
(1) Very satisfied; (2) Somewhat satisfied; (3) Neither, nor; (4) Dissatisfied
22. Which flood protection facilities of Qinglan Lake should be improved?
(1) Flood bank; (2) Storm drainage station; (3) Culvert; (4) Other
23. Have you heard of the construction of the Qinglan Lake project in our county?
(1) Yes, from TV, broadcast, newspaper, Internet
(2) Yes, from the government (including community/village committee)
(3) Yes, from relatives, friends
(4) Yes, other, specify
(5) Don’t know until this survey
24. To whom will you usually raise any suggestion or complaint about this subproject?
(1) Government; (2) Sub-district office/community/village committee; (3) Neighbor; (4) Construction agency; (5) Other
25. Which member of your family would attend any meeting about this subproject?
(1) Senior; (2) Junior; (3) Myself; (4) Spouse; (5) Other
26. What comments and suggestions do you have about the Qinglan Lake project:

Survey of the Jiangxi Poyang Lake Basin and Ecological Economic Zone Small Town Development Demonstration Project (Water Supply)

Time of interview: ____________
Current address: No. ______, ______ Community (Village) Committee, ______ Sub-district (Town), ______ District

1. Basic information of respondent (fill in directly):

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<th>Family population</th>
<th>Gender</th>
<th>Age</th>
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2. Your household income in 2011: ______ yuan
3. Your household income as compared to neighborhoods
   (1) Very good; (2) Good; (3) Neither, nor; (4) Bad; (5) Very bad
4. Is your family entitled to government care, such as minimum living security or subsidy for household in difficulty?
   (1) Yes; (2) No
5. Your family’s daily expenditure last year was ______ yuan (excluding unconventional expenditure, e.g., housing purchase)
5.1. In which food expenses were (including cigarettes and beverages) ______ yuan
6. Is your house owned or leased? (1) Owned; (2) Leased
7. The size of your housing is ______ m²
8. Your housing structure
   (1) Reinforced concrete; (2) Masonry concrete; (3) Masonry timber; (4) Other
9. What are the sources of your family’s domestic water? [Multiple choices]
   (1) Bottled water; (2) Municipal supply; (3) Well; (4) Surface water (pond, river); (5) Other
10. Is it convenient to use water?
    (1) Very convenient; (2) Fairly convenient; (3) Neither, nor; (4) Not quite convenient; (5) Very inconvenient
11. Does your family’s drinking water have any of the following symptoms? [Multiple choices]
    (1) Color; (2) Odor; (3) Deposit; (4) Other
12. Is drinking water hygienic?
    (1) Very hygienic; (2) Fairly hygienic; (3) Neither, nor; (4) Unhygienic; (5) Very unhygienic
13. Are you worried about the safety of drinking water?
    (1) Very worried; (2) Fairly worried; (3) Neither, nor; (4) Not worried; (5) Never thought of
14. Which local diseases are water-borne?
    (1) Skin disease; (2) Intestinal tract disease (e.g., diarrhea); (3) Gynecopathic disease; (4) Typhoid; (5) Hepatitis A; (6) Hookworm disease; (7) Calculus; (8) No relevant disease; (9) Don’t know
15. How much water does your family consume a month? ______ m³
16. How is your family’s water consumption charged?
    (1) Free for everyone; (2) Preferential rate or free; (3) Based on population; (4) Based on household; (5) Based on consumption
17. Your family’s water expenses are ______ yuan/month.
18. What do you think of the prevailing water rate?
    (1) Too high to afford; (2) Relatively high but affordable; (3) Moderate; (4) Relatively low, entirely affordable; (5) Little money; (6) Don’t know
19. Are you satisfied with the existing water supply facilities?
   (1) Very satisfied; (2) Somewhat satisfied; (3) Neither, nor; (4) Dissatisfied
20. Do you expect water supply facilities to be constructed?
   (1) Strongly; (2) Somewhat; (3) Hardly; (4) No; (5) Don’t know
21. Is this water supply facility important for your family?
   (1) Very important; (2) Fairly important; (3) Not quite important; (4) Not important at all; (5) Don’t know
22. Is your family willing to pay for or contribute labor to the construction of water supply facilities?
   (1) Very willing; (2) Quite willing; (3) Hardly willing; (4) Unwilling
23. You’re willing to pay ______ yuan a month after the completion of water supply facilities.
   (1) 5 yuan or less; (2) 6-10 yuan; (3) 11-15 yuan; (4) 16-20 yuan; (5) 21-25 yuan; (6) 25-30 yuan; (7) 31-40 yuan; (8) 41-60 yuan; (9) 61 yuan or more
24. Have you heard of the construction of water supply facilities in our county?
   (1) Yes, from TV, broadcast, newspaper, Internet
   (2) Yes, from the government (including community/village committee)
   (3) Yes, from relatives, friends
   (4) Yes, from others in the village/community
   (5) Yes, other, specify
   (6) Don’t know until this survey
25. In general, do you support the construction of this subproject?
   (1) Yes; (2) No; (3) Don’t care
26. To whom will you usually raise any suggestion or complaint about this subproject?
   (1) Government; (2) Sub-district office / community committee; (3) Neighbor; (4) Construction agency;
   (5) Other
27. Which member of your family would attend any meeting about this subproject?
   (1) Senior; (2) Junior; (3) Myself; (4) Spouse; (5) Other
28. What comments and suggestions do you have about the construction of this subproject?