I. Introduction and Context

Country Context

China’s cities are growing at a rate and scale never seen before in human history. About 380 million people have moved from rural to urban areas over the last two decades; and another 300 million people are expected to migrate by 2025. While urbanization has been a driver of economic growth and helped raising living standards, it also brings tremendous environmental challenges, including water, air and soil pollution, destruction of natural resources and ecosystems and increasing energy demands. Rapid urbanization has dramatically transformed China’s socio-economic structure and has posed tremendous challenges to policymakers and practitioners, especially in secondary cities and lagging regions, to keep pace with demand, especially for the delivery of basic urban services.

Significant regional imbalance in urbanization exists. Urbanization rates are high for the coastal and northeastern areas (over 50% in 2008) while the rest regions of the country show urbanization rates lower than 40%. In addition, different regions are in different stages of urbanization. For instance, the coastal and eastern region of the country has started the urbanization and industrialization process since the eighties, while urbanization and industrialization in the western regions is just starting. The noticeable regional imbalance will hinder the urbanization and therefore, needs to be resolved.

The central and local governments have devised a series of specific policies to accelerate urbanization in China. For example, the most recent 12th Five Year Plan defined the strategic plan during 2011-2015 to promote balanced development among regions, and to actively yet prudently proceed urbanization. In 2010, stimulated by relevant policies from different ministries, various cities exerted great efforts to build innovative cities for better development and model cities for environment protection. These policies cover a broad range of elements in urbanization, such as transportation, stormwater drainage, environment protection, industrial transfer, archive management, utilization of renewable energy, among others. During the urbanization process, a more balanced regional and sustainable approach will be adopted to stimulate the growth of Western regions and small to mid-sized cities. In addition, environment protection, energy conservation and sustainable public services will be the integrated into the urbanization development process.

Sectoral and Institutional Context

Laibin City which was formally established in 2002 and is located in central part of Guangxi Zhuang Autonomous Region (“Guangxi”) in southern China and historically one of the poorest areas of China. Over the last few decades, Guangxi has experienced substantial growth with per capita GDP rapidly increasing from RMB 3,304 in 1995 to RMB 16,750 in 2010. Growth has been driven largely by investments related to the development of manufacturing centers in the neighboring Guangdong Province and tourism sector in scenic areas such as Guilin to the north of the Region. Nevertheless, Guangxi’s economy is still lagging behind the national average of RMB 55,901 in 2010.

In accordance to the 2010 population census, out of the 2.5 million people in the county, 300,000 people live in Laibin City. The city is well connected with major highways, railways and the Hongshui River, which is a major waterway that directly connects to Guangzhou, Hong Kong and Macau. Laibin’s GDP in 2010 was RMB 38.52 billion, an increase of 18% compared to the previous year. In line with Laibin’s continued strong economic growth, urbanization is increasing rapidly. Urban population has increased from 120,000 in 2002 to 260,000 in 2010. Based on the 2008-2025 Master Plan, the city’s urban population is expected to more than double to 600,000 by 2025. Strong economic growth and rapid urbanization has put increasing pressure on Laibin’s urban environment and a major concern is related to the availability and quality of water resources as demand and pollution is increasing
as a result of the urbanization process, economic growth and improved living standards.

Two important rivers cross Laibin City, the Hongshui River, one of the major rivers in Guangxi, and its tributary, the Beizhijiang River. Rapid urbanization and economic growth is putting a lot of pressure on the available water resources. This is amplified by the uneven temporal distribution of rainfall, high evaporation rates, local geological characteristics and thin soil layer. Over 70% of the annual rainfall (averaging 1,344mm) is concentrated between June and August, resulting in flash floods which are exacerbated by new development along the river banks and in old city areas and every 4-5 years the city is affected by a major flood. At the same time, during the remaining month, Laibin faces challenges with drought and keeping minimum flows in the city's canal system.

The existing storm drainage and flood control systems in the urban area of Laibin City are not working well due to a number of issues, including: inadequate engineering, incomplete works, lack of maintenance and deficient waste management. The existing drainage network, including channels and creeks discharging into the Hongshui River, is poorly managed. Problems are exacerbated by encroachments and solid waste dumping into the drainage channels, which substantially reduce water flow capacity of the system. For example, between May 31 and June 1, 2010, an all-time record downpour of 439 mm of rain during 17 hours caused a major flood in downtown Laibin. About 30% of the roads in the city center and 51,000 people were affected by the flood. The frequency of these high-intensity and short-term events is likely to increase due to climate change, with further urbanization and occupation of flat landscape in urban area. Therefore, proper flood management and drainage system is very important for Laibin City to reduce the risks for future floods.

Laibin City is also facing serious problems with water pollution and the urban creeks are heavily contaminated with water quality ranging from Class IV or even worse. Wastewater interceptors and collection networks are currently serving the entire population. Most of the domestic wastewater is directly discharged, without proper treatment, into creeks and canals, and affecting downstream communities. The city has a wastewater treatment plant with a capacity of 50,000m3 every day, but currently treats about 32,000m3 of wastewater, which includes drainage. The plant is operated by the city and partially funded through tariffs and budgetary municipal support.

In light of the above mentioned challenges and the context of Laibin’s 12th Five Year Plan, Laibin City Government (LCG) aims at implementing strategies to better protect natural resources and cultural assets, improving the urban environment and promote sustainable urban and industrial development. In this context, the Urban and Rural Planning and Design Institute prepared the Urban Master Plan of Laibin City (2008-2025) aiming at improving the city’s image and living environment through construction and rehabilitation of a drainage network of 13 canals and 4 lakes in the northern district with a total length of 60 km within the 12th FYP period, which will improve flood prevention, expand its wastewater and waste collection system and upgrade overall water environment in the city.

Laibin City Government (LCG) requested the Bank’s support to finance some priority investments related to the integrated urban water management strategies. The Bank’s support will help Laibin’s reduce water pollution and flood risks and complement other city large scale investments in improving the water environment in the city. The project would be designed to keep a good balance between supply-driven measures (government initiated, e.g. drainage and flood protection works, wastewater and waste collection/treatment) and demand-side management measures (related to user/beneficiary behavior change, e.g. water conservation and waste-disposal). Selected subprojects should comply with government regional and local plans and address critical water issues described above and will be evaluated according to the following criteria, which will be further tested during project preparation: (i) proposed subprojects should be cost effective and have reasonable economic and financial returns; (ii) the subprojects should have overall environmental and social benefits and not cause any environmental and social problems that cannot be effectively mitigated; and (iii) the subprojects should integrate planning and operational aspects that maximize the benefits of infrastructure investments in the long run.

Relationship to CAS

The World Bank-China Country Partnership Strategy (CPS) 2006-2011 focuses on five thematic areas of engagement that build on the Bank Group’s international expertise while maximizing the creation and dissemination of knowledge. Among others, the Bank aims to help China through promoting a balanced urbanization, manage resource scarcity and environmental challenges, such as reducing pollution, conserving water resources and optimizing energy use.

This Project directly supports two of five pillars of the Country Partnership Strategy for China, namely: (i) managing resource scarcity and environmental challenges, and (ii) improving public and market institutions. These pillars support the Government of China’s efforts to meet its ambitious goals for creating a more resource-efficient, less polluting society, as well as improving its institutions. The objectives of the project are also consistent with the CPS and Water Sector CPS for 2011-2015 (both are being finalized at present), which are to be aligned with China’s 12th Five Year Plan.

II. Proposed Development Objective(s)

Proposed Development Objective(s)

The proposed Project Development Objective (PDO) is to support priority investments to reduce flooding risk and water logging in selected areas of Laibin City. The project will help catalyze an integrated approach to flood risk management and drainage in LaibinCity combining structural and non-structural measures. The separation of drainage and wastewater collection systems will also help improve the operation of the wastewater treatment and reduce water pollution.
Key Results
The expected results of the project are:
- Reduction in area and number of residents affected by floods
- Increased volume of wastewater collected and treated
- Reduction of key pollutants/nutrients discharged in surface water; an

III. Preliminary Description
Concept Description
Based on the overall strategy to improve the water and environmental management in Laibin City, this project will help expand and improve the drainage and flood protection systems in the city. In addition, the separation of sewage and drainage systems will help reduce water pollution. The city is facing challenges with water pollution, flood and droughts, and an integrated approach is required to address these issues comprehensively.

Project Components. The proposed Bank supported project will have the following four interrelated components:

Component 1: Improving River Flood Management: This component is focused on reducing the vulnerabilities of people to floods. The component will foster an integrated and sustainable approach to reducing by flood risks and combine investments in the development and protection of water resources and wetlands, construction, strengthening and protection of river embankments in high flood-risk areas, construction of sluice gates, pumping stations, and rubber dams of multiple functions and dikes along existing river banks. The component will also pilot innovative approaches to improve natural drainage and reduce urban runoff (e.g. increase vegetation cover, porous asphalt, water reuse).

Component 2: Improving Urban Drainage. This component will help reduce localized inundations and water logging in selected areas of Laibin City by improving the drainage system and separating the drainage and sewage networks. The component will finance subprojects to expand drainage networks, interceptors and pipelines, pumping stations. The separation of drainage and sewage system will help increase loading and treatment rates at the existing wastewater treatment plant. The project will also help improve sanitary conditions and reduce clogging of the drainage network at certain critical areas by reducing waste entering the system.

Component 3: Technical Assistance and Capacity Building for Integrated Urban Environmental Management: This component is closely linked to the infrastructure investments under component 1 and 2. At one hand, the component will support the city to build its understanding and capacity to sustain project and other capital investments through coordinated investment strategies and proper asset management programs that ensure resources are allocated for the operation and maintenance of facilities and infrastructure. Secondly, the component will help the city developing strategies, that combined with the proposed infrastructure investments will reduce flood risks in the city. Options being discussed with the city include the preparation of: (i) flood hazard and risk maps, (ii) flood forecasting and emergency response systems; and (iii) land use plans and protection of floodplains in new development areas. During project preparation, the team will work closely with Laibin City authorities to identify priority areas for support. (Note: this component is still being discussed with the client and a detailed budget and activities will be ready by appraisal).

Component 4: Project Management and Supervision. This component includes: (a) project management (including M&E); (b) consultancy services for engineering design review and construction supervision; and (c) the supervision of the implementation of environmental management and resettlement action plans.

IV. Safeguard Policies that might apply

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V. Tentative financing
VI. Contact point

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Financing Source	Amount
Borrower	80.00  
International Bank for Reconstruction and Development	80.00  
Total	160.00  