I. Project Context

Country Context
Thirty years of rapid economic growth have supported unprecedented urbanization in China. According to the National Statistics Bureau, China’s urban population reached 690 million in 2011, accounting for 51 percent of the total population. The United Nations projects that the number of Chinese urban residents will grow to over 1 billion by 2030.

Urbanization has been accompanied by an equally rapid motorization. From 1990 to 2010, the number of private vehicles in Chinese cities increased at an average of 24 percent annually. While motorization has supported economic development and enhanced mobility at an individual level, it has also brought about a range of adverse economic, environmental and social impacts, including increases in traffic congestion, air pollution, fossil fuel consumption, greenhouse gas emissions and road accidents.

To mitigate these growing challenges, Chinese cities are increasingly investing in public transport networks and services, particularly in urban rail. As of June 2012, 14 Chinese cities were operating urban rail system with over 1,700 kilometers of track and 31 cities had urban rail plans approved. Approximately 5,000 km of urban rail is either in operation, under construction or under
To facilitate this process, the State Council adopted a directive on Prioritization of Urban Public Transport Development, on December 29, 2012. This Directive 64 provides a new framework for public transport, drawing on lessons learned from the past. It lays out four broad principles: (i) the provision of convenient services to users; (ii) the provision of integrated and interconnected transport services closely integrated with urban master plans and long term land use; (iii) the pursuit of green development with an emphasis on efficient and high capacity rapid transit systems on major corridors; and (iv) the determination of solutions that are context sensitive and appropriate.

**Sectoral and institutional Context**

Nanchang is the capital city of Jiangxi Province and a renowned historic and cultural city in China with over 2,200 years of history. In 2010, the city of Nanchang covered an area of 618 square km with an urban population of 3.3 million. Nanchang’s GDP represented 23 percent of the GDP of Jiangxi Province and reached 269 billion RMB (approximately US$43.3 billion equivalent) in 2011, a 22 percent increase over the previous year, with an average GDP per capita of 53,000 RMB (approximately US$8,500 equivalent).

Nanchang has rapidly expanded like many other Chinese cities, and has laid out detailed plans for future development in western Nanchang. Nanchang is split in two by the Gan River. Nanchang plans to develop on both sides of the Gan River. The older part of the city, located on the eastern side of the river, has dense residential areas, commercial centers and public facilities. The development of the western side of the river started a decade ago with the construction of high density office buildings, a provincial stadium and a network of large avenues. Further development is planned in the yet lightly developed southwest Nanchang, with additional residential areas, a central business district, a high-tech zone, a high-speed rail (HSR) station (under construction) and a large provincial government compound (under planning). According to Nanchang’s Master Plan (2003-2020), total development in the western area will reach 95 square km by 2020, with a population of 950,000.

Urbanization has been accompanied by rapid motorization and its consequences. By the end of 2011, total auto vehicle ownership in Nanchang exceeded 470,000. Traffic surveys indicated that the share of all motorized road trips (including public transport) grew rapidly from 22 percent in 2002 to 30.5 percent in 2010, while 67 percent of trips were still by bicycle or walking. The average distance travelled per motorized trip was 9.4 km. Public transport accounted for only 13.5 percent of total daily trips – relatively low compared to cities with similar sizes and GDP such as Changsha (24.5 percent) or Wuhan (23.4 percent), where the share of walking and biking is lower. The eastern part of the city and the four bridges across the river now routinely experience congestion with average driving speed down to 11 km/hour during rush hour. Car traffic is expected to grow rapidly in the western part since the design featuring wide roads and ample parking is amenable to car traffic.

In response to these challenges, the Nanchang Municipality (NM) aims at developing an integrated urban transport system that anticipates the needs arising from its new urban development. NMG plans to implement attractive alternatives to car transport by emphasizing integrated and efficient public transport services. NM has adopted the following specific targets to be achieved by 2020: (i) rapid transport with all car trips between any two points within the city core below 30 minutes; (ii)
safe transport with less than 5 fatalities per 10,000 vehicles; (iii) efficient transport with a public transport mode share over 30 percent and private car mode share below 25 percent; (iv) comfortable transport with reasonable public transport load in terms of passenger per square meter during peak hours; and (v) eco-friendly transport with noise at junctions below 60 dB and emission per vehicle cut by half compared to today.

NM sees urban rail as the backbone of such an integrated public transport system, able to attract passengers with growing expectations in terms of quality and comfort. In 2008, it developed an urban rail network plan consisting of 5 lines, totaling 168 km and 128 stations. The first stage, as set forth in the Nanchang Urban Rail Transit Construction Plan (2009-2016) approved by the National Development and Reform Commission (NDRC), includes the construction of Line 1 and Line 2 from 2009 to 2016. The construction of Line 1, totaling 28.7 km with 24 stations, one depot and one train parking yard started in February 2012 and is expected to enter operation in December 2015. Line 2, from ZhanQianNanDaDao Station to XinJiaAn Station, to be financed under the project, will have 23.78 km with 21 stations and one depot according to its latest Preliminary Design Report. NM expects to start the construction of Line 2 in mid-2013 and put it in operation before end 2017 as part of the approved Urban Rail Transit Construction Plan. NM also plans the construction of Line 3 and phase 2 of Line 1 and 2 by 2020 and may launch the construction of additional lines sequentially (Line 4, 5), subject to further approval.

Bus services will be re-organized in accordance with the urban rail network to better feed the urban rail network. By the end of 2011, the Nanchang Bus Company (a state-owned enterprise operating all bus services in the city) was a major component of the urban transport system with total annual passenger ridership of 548 million. It operated 162 bus lines, forming a 3,400 km long network, with 3,095 buses in operation. Since the urban rail network will need to be closely integrated with bus services, the bus company has launched a specific study on bus route optimization which plans for route re-organization in the short-term (before urban rail opening) and medium- to long-term (after urban rail opening).

While multi-modal integration is central to NM’s urban transport strategy, its implementation is often institutionally challenging. Urban rail systems compete effectively with car transport only when well-integrated with other modes of transport. From an end-user perspective, this integration needs to combine the necessary physical facilities for different transport modes, with seamless transport services in terms of schedule, fares, fare media and information. Chinese design institutes and construction companies have accumulated extensive experience in building urban rail lines in China. However, the design and implementation of seamless transfers across modes and related technologies and policies have remained an institutional challenge that NM seeks to address, learning from good international and domestic practices. NM has prepared an integration plan for Line 2 to that end (Line 2 Integration Plan). This Plan includes several interchange locations between bus and rail along the network alignment.

NM also aims at better coordinating its land use planning in western Nanchang with the new Line 2 in terms of planning, connection and financing. Nanchang has a dense urban core located on the east side of the Gan River. That area offers transit supportive densities of over 10,000 residents and jobs per square km. Line 2 will also connect the new HSR station in western Nanchang to eastern Nanchang and its existing rail station. In between, Line 2 will go through areas in western Nanchang that are currently lightly populated but for which NM has drawn plans for major population growth over the period 2020-2030. By building part of Line 2 in anticipation of future urban development,
Nanchang will have an opportunity to apply transit oriented development concepts to these new urban areas. NM will also seek to draw on the increase in land value in the city as a result of better public transport to support the project financing, by transferring primary or secondary development rights to the municipality-owned urban rail company (URC).

II. Project Development Objectives
The proposed project development objective (PDO) is to provide an effective urban mass rapid transit system of appropriate quality along the Line 2 corridor from ZhanQianNanDaDao Station to XinJiaAn Station.

III. Project Description

Component Name
- Component 1: Construction of Line 2
- Component 2: Equipment for Line 2
- Component 3: Construction Management and TA
- Component 4: Safeguards and Other Construction Costs
- Physical and Price Contingencies
- Interest During Construction and Initial Working Capital
- Front-end Fee

IV. Financing (in USD Million)

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V. Implementation

A. Institutional and Implementation Arrangements

Jiangxi Province will sign the Project Agreement and will be the Project’s formal implementing entity, responsible for managing, coordinating and monitoring the Project implementation. It will delegate most of these responsibilities, through NM, to the Nanchang URC. The URC is an entity of NM responsible for implementing the Nanchang Urban Rail Transit Construction Program as well as raising, managing and repaying funds for the program.

To provide overall governance and leadership for project preparation and implementation at the municipal level, a Project Leading Group (PLG) was established by NM in August 2012. The PLG is currently chaired by the Vice Mayor, co-chaired by the Deputy Municipal Secretary General and the Board Chairman of the URC, and composed of top leaders from all key municipal line agencies, including the Finance Bureau, the Development and Reform Commission, the Urban Management Commission, the Planning Bureau, the Construction Commission, the Land Resources Bureau, the Environmental Protection Bureau, the Housing Management Bureau, the Price Bureau, the Traffic Management Bureau and the Bus Company.
A Project Management Office (PMO) has been established under the Urban Rail Development Headquarters Office/URC, chaired by the URC Board Chairman. It will be responsible for the daily operations of the Project, including project management, technical preparation, environmental and social safeguards, procurement, financial management, and monitoring and evaluation in accordance with the Bank’s policies and guidelines.

B. Results Monitoring and Evaluation

Achievement of the Project Development Objectives will be measured by the following indicators: (a) Effective urban mass rapid transit system, measured by ridership level compared to forecast, time savings for users on Line 2, and the increase in the proportion of urban rail commuters along Line 2 with access to a car; and (b) Appropriate quality, measured by the proportion of users that rate the service as satisfactory or better. The PMO will coordinate the relevant agencies in collecting data required for monitoring and evaluation of outcomes. The PMO will review the results on the basis of various progress reports, and take appropriate corrective actions as needed.

C. Sustainability

Long-term sustainability of the urban rail system will depend on early consideration of long-term financial resources and coordinated planning among different agencies whose responsibilities will be affected by the urban rail program. In general, the overall policy environment to achieve these outcomes is favorable in China. Municipal boundaries cover both urban and suburban areas, limiting fragmentation of metropolitan governance, while local governments have a strong level of control over key factors such as bus service, urban land development and fares. Moreover, the national government is actively promoting public transport priority.

Social and economic sustainability of Line 2 will be dependent on ensuring reasonable fares and sufficient ridership for Line 2 in the mid-term. The level of fares applied in China usually reflects a strong emphasis on fare affordability. Line 2 fares are expected to follow a similar pattern. The use of integrated fares between bus and urban rail are expected to facilitate affordability for those who need to transfer multiple times or for those who make chained trips. The URC and NM fully understand the need to optimize land use planning and urban rail integration, as well as public transport integration around the Line to support the development of ridership. Their efforts in that respect will be supported by technical assistance under Component three.

From a broader sustainability perspective, Line 2 is planned as part of a broad hierarchized public transport system, including other urban rail lines, a bus rapid transit system and a bus network. This project will support the integration of Line 2 in this network to provide effective accessibility and mobility. In the longer term and beyond the project, Line 2 will also support sustainable patterns of urban growth in western Nanchang, building on transit oriented development principles. Western Nanchang offers a supportive environment given the availability of developable land, the urbanization trends in China, and its location between the two major rail stations in Nanchang. The project will support exchange of experience with other cities with mass transit system regarding the development of urban space of high density, mix use and high quality nearby stations.

VI. Safeguard Policies (including public consultation)
### Safeguard Policies Triggered by the Project

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### VII. Contact point

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