I. Project Context

Country Context

China’s new economic growth strategy, as articulated in the 12th Five Year Plan (2011-15) and various government documents, calls for fostering urbanization and increasing domestic consumption to promote a steady and rapid economic development, while at the same time safeguarding the environment, ensuring social inclusion, and reducing income and regional disparities. This strategy builds on the three-decades of successful economic growth, which was largely fueled by export-led industrialization and investment on infrastructure development. The new growth strategy is closely aligned with the World Bank Group’s development goals that strive to eliminate extreme poverty and promote shared prosperity.

During the past economic boom, China also experienced a rapid motorization where the number of vehicles increased from 5.5 million in 1990 to 120 million in 2010. Accelerated urbanization and continued economic growth (albeit lower than historical trends) will further increase motorization and transport demand in Chinese cities. Yet, while facilitating economic development, motorization
is also a major energy consuming activity, leads to local air pollution greenhouse gas (GHG) emissions, and causes injuries and fatalities during road accidents. Therefore, achieving a more sustainable and inclusive path for urbanization and economic growth will be inextricably linked to how well Chinese cities are able to provide an urban transport system that can simultaneously slow down the growth of negative transport externalities, while at the same time ensuring cities have an effective, efficient, and safe urban transportation system.

To date, local governments in China have followed a strategy focused primarily on expanding the supply of transport in their respective jurisdictions – building roads to accommodate a growing vehicle population and investing on buses and mass transit. Yet, this supply-side strategy was not sufficient to respond to the rapidly growing transport demand in an efficient and environmentally sustainable manner. In fact, during the large infrastructure investment period, the key urban transport indicators – congestion, air quality, and safety, have worsened in large cities, as well as some medium-size cities, resulting in poor quality of life and unfavorable investment climate in the worst affected cities. Recognizing the importance of urban transport for national development, the central government issued a series of policy directives and guidance to encourage cities to adopt a more efficient and sustainable urban transport services in cities. In 2005 and 2012, the State Council issued Opinion No. 46 and No. 64 respectively mandating cities and providing them specific guidance to make public transport development a priority in their urban transport master plans. Similarly, in 2011, the Ministry of Transport (MOT) initiated a pilot program in 30 cities to promote the development of what is called a “public transit metropolises” which has a goal of increasing transit’s mode share in the pilot cities to more than 40 percent of the total commuting transport demand.

**Sectoral and institutional Context**

The proposed project will support public transport improvements in two cities in Heilongjiang Province, namely Harbin and Mudanjiang. Heilongjiang Province is located in northeastern China and has a population of 38 million. Heilongjiang’s GDP per-capita in 2012 was US$5,600, lower than the national average of US$6,091 and less than half of the more developed eastern provinces. Heilongjiang was the traditional base of the old industrial complex in China, which had been declining since the beginning of reforms. In October 2003, the State Council issued an Opinion on “The Implementation of Strategies for Revitalizing Northeast’s Old Industrial Bases,” following which it launched the Northeastern Revitalization Strategy to support the reform of state-owned enterprises and transforming and upgrading the old industries. Accordingly, Heilongjiang’s economy in recent years has been growing faster than the national average.

Harbin is the capital city of Heilongjiang, and the largest city in northeast China. In 2011, Harbin Municipality (covering the urban and rural areas) had a population of 10.6 million, making Harbin the tenth most populous city in China; its GDP was RMB424 billion (US$ 68 billion). Mudanjiang is a much smaller city than Harbin. It is a prefecture-level city located in the southeast of Heilongjiang. It is a border town located 248 km from Vladivostok, Russia. In 2011, Mudanjiang Municipality (covering the urban and rural areas) had a population of 2.8 million. Its GDP was RMB94 billion (US$15 billion). Both Harbin and Mudanjiang are located above 45 degrees latitude and both cities have dry and extremely cold winter with temperature averaging in January about -18°C (-1°F). As such, Harbin and Mudanjiang, not only have the same urban transport challenges faced by other cities in China as described above, but also have the added challenge of providing public transport services in an extremely cold climate, heavy snow, and icy road conditions during
Public Transport in Harbin and Mudanjiang: Challenges and Reforms Ahead

Public transport services in both Harbin and Mudanjiang are characterized by inadequate capacity and aging bus fleet. Buses run at low speed and low punctuality, in part due to poorly-designed road infrastructure and lack of modern traffic management system that provides priority to buses. The application of Intelligent Transport System (ITS) to support public transport operations and traffic management is at an early stage in Harbin and Mudanjiang, and lags behind other major cities in China. The inefficient public transport systems result in passengers waiting a long time for a bus in cold temperature, and when the bus arrives it is often overcrowded especially during peak hours; these in turn discourage potential passengers from taking public transport. Women are especially affected by poor public transport as women tend to value safety, security and comfort more than men, and thereby reducing their mobility or forcing them to take a more expensive travel mode.

The supporting infrastructure facilities, such as bus depots, terminal and passenger hubs are inadequate. Due to lack of adequate parking garages, buses are parked outside, and during the cold winter season, the drivers have to spend more than an hour to start and warm up the engine, which wastes fuel, causes high pollution, and results in the loss of the driver’s time. Under the severe weather and icy road conditions, accidents occur frequently, which cause fatalities and injuries and property losses. In addition, even minor accidents cause major traffic delays and create congestion during incident investigation and removals, which further reduces the bus speed.

Harbin Public Transport System

Public transport in Harbin is provided by 34 public transport companies, including two state-owned and 32 private. The total number of bus routes in Harbin is 165. The bus network density is 2.37 km/ km2 with daily passenger volume of 3.08 million. The mode share for buses was 30 percent in 2012. The two state-owned bus companies have 85 bus lines with 2682 buses. While the private bus companies have a combined 80 bus lines with 2447 buses. The SOEs and some private companies operate at a loss in part due the low fare and the level of quality and quantity of service required by the Transport Bureau, which regulates the bus operators.

The public transport infrastructure in Harbin is operated by the Harbin Transport Infrastructure Investment and Construction Management Company (TIICMC). It is responsible for the construction, management, and operation of bus terminals, depots, and other public transport related infrastructure. Currently, there are 19 bus depots, 303 bus terminals, and 2034 bus stops in Harbin used by all SOE and private bus operators. In 2012, Harbin established a state-owned Transport Investment Cooperation (TIC) under the municipal State-owned Assets Supervision and Administration Commission. The TIC will be responsible for supervising and managing the two state-owned bus companies and the terminal company.

As one of the pilot cities with MoT’s “Transit Metropolis” initiative, Harbin is developing a public transport system that can increase the transit’s mode share to 45 percent by 2020. Harbin Municipal Government (HMG) has a major investment program, including developing metro rail, bus priority lanes (including BRT), upgrading traffic system management and ITS application, network-wide bus service improvement. Under the proposed project, HMG plans to equip its two SOE bus operators with new cleaner-fuel and accessible buses, thereby upgrading their quality and
attractiveness to passengers, at the same time introducing lower-emission and sustainable public transport system in the city. HMG is also engaging the independent bus operators with a view to achieve a more coordinated and standard quality bus service provision by the private operators. Under the proposed project, HMG will launch a sector reform program to establish a coordinated route structure, common bus scheduling and dispatching service, linking all private and SOE operators to the same central bus dispatching centers. HMG will also improve the regulatory framework to clarify the roles of the government and the private sector in the provision of bus services, and to ensure the SOEs and private operators have a level playing field, including equal access to public transport infrastructure, ITS applications, centralized dispatching service, and government subsidy program.

Mudanjiang Public Transport System

Mudanjiang has only one privately-owned bus company, providing bus services throughout the municipality under a long-term concession agreement with the Mudanjiang Transport Bureau. The mode share for buses in Mudanjiang is about 15 percent. There are 50 bus lines in operation, with 704 buses. There are 21 bus terminals in the city, 17 of which do not have parking space for buses. There are 1194 bus stops in all bus lines. Of these, 350 have bus shelters and only 2 percent of bus stops have bus stop bays. All bus supporting infrastructure are managed by the bus company.

Mudanjiang is improving its urban transport infrastructure and service to increase transit’s mode share to 35 percent by 2020. Mudanjiang Municipal Government (MMG) has listed urban public transport as one of the four key industries to be developed in the coming three years. MMG has privatized its bus operation in 2003 to a private company under a 30-year concession. However because of low fares and high quality standards required by the city, the private operator does not cover its capital and operating costs from operating revenues. It receives full capital subsidy to replaces buses, and some operating subsidy. Under the proposed project, Mudanjiang will provide the private operator with the new buses in order to significantly upgrade its services and ensuring public transport becomes a preferred mode share for the public. The buses will be transferred under a performance-based lease agreement that would require the bus company to meet certain performance standards. Mudanjiang will also use the institutional development component under this project to improve the regulatory oversight of the private operator.

Coordination with other relevant World Bank Projects. Harbin is one of the pilot cities in the GEF project of “Large City Congestion and Carbon Reduction Project”, which was approved by the Board on March 28, 2013. The GEF project complements the proposed project in the following way: it provides funding to develop a comprehensive travel demand management system, including better parking policies and transient-oriented development plan. Both of these are essential to ensure public transport mode share increases are sustained. The GEF project also provides funding to develop additional bus corridors and ITS activities.

Higher Level Objectives to which the Project Contributes

The proposed project is aligned with the 2013-2016 World Bank Group Country Partnership Strategy (CPS) for China discussed by the Board on November 6, 2012. The CPS focuses on three main themes: support greener growth, promote more inclusive development, and advance mutually beneficial relations with the world. The CPS is aligned with China’s 12th Five-Year Plan and is informed by the “China 2030” report prepared jointly by the Bank and the Development Research
Center of the State Council (published in 2012). The proposed project supports the CPS themes of greener growth and inclusive development and the sectorial objectives of the CPS to promote low-carbon urban transport and strengthening mechanisms for managing climate change. Through promoting clean-fuel vehicles, integrated corridor management, traffic management and safety improvements, this project supports the achievement of CPS outcomes of reducing energy consumption and helping China to make progress in meeting its commitments under environmental conventions.

The project will support the advancement of the Bank’s new strategy to boost shared prosperity in China, as the primary users of public transport services in the project cities are the poor. According to user surveys, 76 percent of public transport users in Harbin earn less than RMB 14,400 a year, while the average per-capita income in Harbin is RMB 22,500. The improvements envisaged under the proposed project will improve the low-income population’s access to safe and convenient public transport services, which are important to accessing jobs and social services in the cities.

II. Proposed Development Objectives
The Project Development Objective (PDO) is to upgrade the quality and efficiency of public transport services in selected public transport corridors of the project cities.

III. Project Description
Component Name
Public Transport Corridor Improvement
Comments (optional)

Component Name
Public Transport Infrastructure Improvement
Comments (optional)

Component Name
Traffic Management and Safety Improvement
Comments (optional)

Component Name
Emergency Response and Road Maintenance
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Component Name
Capacity Building
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IV. Financing (in USD Million)

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V. Implementation
A. Institutional and Implementation Arrangements

For the proposed project, Heilongjiang Province has established a Project Management Offices (PMO) to coordinate project preparation and implementation by the two project cities. Similarly, both project cities have established Project Leading Groups (PLG) and Project Management Offices (PMO). Detailed implementation arrangements are described in Annex 3.

Provincial Level Coordination. Heilongjiang Province, through the Provincial PMO, will be responsible for providing overall leadership and policy guidance, and for overseeing project coordination and implementation by the two project cities. The Provincial PMO is headed by the Director for the Department of Foreign Capital and Overseas Investment in the provincial Development and Reform Commission (DRC). The members of the Provincial PMO include senior officers from the provincial DRC and Finance Bureau.

City Level Coordination. Both Harbin and Mudanjiang have established a PLG for coordination and cooperation among various municipal government departments involved in the delivery of the proposed project. The Harbin PLG is headed by the Executive Vice Mayor, and is co-chaired by two Deputy Mayors responsible for planning and construction, and traffic management. The Mudanjiang PLG is headed by the Mayor, and co-chaired by the Deputy Mayor responsible for construction and investment.

Under the overall direction of the PLGs, each city has also established city-level PMOs for day-to-day project preparation and implementation. The city PMOs will be responsible for procurement, financial management, supervising contractors and consultants, ensuring compliance with environment and social safeguard policies, and monitoring and reporting of implementation progress. The Harbin PMO is established in the Harbin Transport Bureau and is headed by Bureau’s Director General. The Chairman of the Harbin Transport Investment Cooperation (TIC), a company established by the State-owned Assets Supervision and Administration Commission and supervised by the Transport Bureau, is appointed as the Executive Vice Director of the Harbin PMO. The Mudanjiang PMO is established in the Mudanjiang DRC, and is headed by its Director. The Vice Directors for Mudanjiang DRC and Finance Bureau are also appointed to serve as vice directors for the Mudanjiang PMO. Under the city PMOs, Project Implementing Units (PIU) have been established to assist the PMOs to implement various project components related to the responsibility of their departments, including Construction Bureau for road construction, Traffic Police for traffic management, Transport Bureau and Bus Companies for public transport component.

B. Results Monitoring and Evaluation

The Results Framework provided in Annex 1 will be the main tool for monitoring and evaluation of
the outcome and intermediate indicators for the project, which have been established to evaluate the achievement of the PDO and components respectively. The PMOs will coordinate the relevant agencies in collecting the require data for the indicators. The PMOs will report the results as part of the Project Progress Report.

In addition to the monitoring and evaluation included in the Results Framework, the proposed project will pilot an accounting of the GHG emissions and pollutant associated with the project in Harbin. The “Transport Emissions Evaluation Models for Projects” (TEEMP), developed by Clean Air Asia, is used to estimate the associated GHG emission and pollutant reductions from the project versus the “business as usual” (or without project) scenario. The TEEMP calculates the impact of Harbin’s public transport corridors on PM, NOx and CO2 emissions by quantifying the construction, operation and traffic impacts of projected bus priority corridor users. The TEEMP estimate shows that over the 20-year evaluation period, the project will result in the following benefits: 58.90 tons of PM savings; 5,240.31 tons of NOx savings; and 2,853,537.56 tons of CO2 emissions. The TEEMP will be used by Harbin PMO to conduct further calculations during project implementation and at completion to confirm the ex-ante predictions.

C. Sustainability

The sustainability of a public transport project relies on continued maintenance and provision of a high-quality service and operation that ensures public transport services do not deteriorate and remain an attractive alternative to driving a private car. This will require the cities to provide human and financial support to ensure the provision of adequate and effective bus services in their respective cities. The government support would be especially important as the bus companies do not have adequate revenue to cover operating and future capital investment. The Fiscal analysis carried out as part of project preparation (Annex 6) confirms that both cities have the fiscal space to allocate adequate budget to maintain the service quality and standard developed under the proposed project. In addition, the project cities are encouraged by the central government to ensure public transport receives priority investment under their urban transport plan. Harbin is a pilot city under MoT’s “transit metropolis” program, which will ensure Harbin to continue investing on public transport services to meet MoT’s goals for increasing transit’s mode share. The sustainability of the project is therefore assured by the two city governments’ commitment to continue supporting public transport services.

VI. Safeguard Policies (including public consultation)

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Comments (optional)

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