### I. Project Context

#### Country Context

Strong economic growth has been accompanied by unprecedented rapid urbanization in China over the past 20 years. The share of urban population has increased from 26 percent in 1990 to nearly 50 percent in 2010, and the number of urban population is expected to increase from 622 million today to nearly 1 billion by 2030.

With continuing urbanization, municipal governments face a major challenge to ensure that urban development is achieved in a sustainable manner. This requires municipal governments to ensure efficient utilization of natural, financial, and human resources, mitigation of pollution and greenhouse gas emissions, development of collaborative institutional management structures, implementation of policies conducive to sustainable government and business practices, and sustainable development of urban land use and integrated multi-modal urban transport systems.

To this end, in China's 12th Five-Year Economic and Social Development Plan (2011-2015), the national government emphasizes the concept of low carbon development and the establishment of a resource-saving and environmentally-friendly society. The Plan calls for all sectors to enhance the resource management and utilization, as well as to improve institutional and policy frameworks, in order to ensure long term sustainability of Chinese cities.

#### II. Sectoral and Institutional Context
Sectoral and Institutional Overview

Accompanying China’s substantial urban migration has been an equally rapid motorization. From 1990 to 2010, the number of privately owned vehicles in China increased on average 25 percent per year. By enhancing mobility, motorization has brought enormous benefits to economic development and peoples’ daily lives. However, associated with these benefits is a range of problems: increases in traffic congestion, air pollution, fossil fuel consumption, greenhouse gas emissions, and road traffic accidents.

For the past 20 years, cities have invested substantially for urban road networks to meet the need of the rapidly growing motor vehicle traffic. However, growth of motor vehicle traffic outpaced the growth of urban road capacity, leading to increasingly severe traffic congestion. Other problems - road accidents, air pollution, greenhouse gas emission, and fuel consumption - all become major public concerns. Municipal leaders start to seek more sustainable ways to address urban mobility issues.

Recognizing the need for an alternative approach, in October 2005, the State Council’s Opinion #46 declared that urban public transport development should be a national priority. In 2007, responsibility for urban public transport operations was realigned to the Ministry of Transport. The national government gave a new policy emphasis to clean, safe, and energy-efficient urban transport systems. The 12th Five-Year Plan highlights the strategic importance of the development of public transport system in Chinese cities. Despite strong national-level policy support, improving municipal-level capacity for planning, financing, implementing, managing and monitoring sustainable urban transport systems is still a challenge, especially in cities located in the central and western regions of the country.

Urban Transport Problems in Changzhi, Shanxi Province

Located in southern Shanxi Province, the Changzhi Municipality comprises a central city (Changzhi City), 10 rural counties, and one county-level city, with a total population of more than three million. Changzhi City, including its immediate suburban districts, has a population of 540,000. The city has a long tradition of urban environment management, and in recent years, Changzhi City won recognition as a National Garden City and was named one of the official Ten Charming Cities of China.

Like other similar size cities in China, the modes of urban transport are all road-based, including walk, bicycle, bus, and private car. Also like other Chinese cities, Changzhi has been growing rapidly. From 2000 to 2009, the municipal GDP increased by over 13 percent each year, and the population of Changzhi City by nearly 22 percent per year. The rapid growth in population, employment and income has been accompanied by rapidly growing motorization. Private car ownership has increased on average by 46 percent each year from 2005 to 2009.

The total number of motor vehicles (including motorcycles) on the road today is relatively low, with 215,800 vehicles registered within the Municipality, of which 60,000 are private cars operating in the city. However, the city has already begun to experience problems of road accidents and traffic congestion. From 2007 to the first half of 2010, there were 176 registered traffic accidents in the city of Changzhi. 44 percent of which involved fatalities, which is 1.68 times higher than the national average. Peak-hour travel conditions have been worsening on most major arterials in the city center. This seriously affects the quality and speeds of bus services. According to household surveys, nearly 50 percent of the respondents cited congestion and delays as the foremost reason for dissatisfaction with public transit services.

Comparing to the mega and large cities in China where traffic congestion problem is already deep-seated, Changzhi has a unique opportunity to learn from the experience of these cities and to implement a more balanced, sustainable urban transport strategy. To this end, the Changzhi Municipal Government (CMG) seeks to adopt a comprehensive approach to develop a people-oriented urban transport system with priority given to public transport, non-motorized transport and pedestrians.

Changzhi is one of the pilot cities under the Global Environment Facility (GEF)-funded China-GEF-World Bank Urban Transport Partnership Program (CUTPP). The program aims to help achieve a paradigm shift in China’s urban transport policies and investments toward the promotion of public and non-motorized transport, modes that are less energy intensive and polluting than those fostered by current urban land use planning and transport systems in China. Under this program, Changzhi has received a GEF grant to support a Technical Assistance (TA) study, “Strategic Planning for Sustainable Development of Urban Transportation in Changzhi City.” The study has laid a strategic planning foundation for the identification and definition of the Project.

III. Project Development Objectives
The Proposed Project Development Objective (PDO) is to improve transport mobility in the central city of Changzhi in a safe, energy-saving, and efficient manner for all users.

IV. Project Description
Component Name
Integrated Corridor Improvement
Intelligent Urban Transport Management System
Public Transport Infrastructure
Institutional Capacity Development

V. Financing (in USD Million)

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VI. Implementation

A. Institutional and Implementation Arrangements

Shanxi Provincial Government, through Shanxi Provincial Finance Department, will be the project's implementing agency at the provincial level, but will delegate most responsibilities for project implementation, management and monitoring to Changzhi Municipal Government (CMG).

At the municipal leadership level, the project will be led by a Project Steering Group (PSG), chaired by the Mayor and comprising senior officials from relevant agencies including Municipal Development and Reform Commission (MDRC), Finance Bureau, Construction Bureau, Public Security Bureau, Transport Bureau, City Greening Bureau, Environment Bureau, Land Bureau and district governments. A Project Management Center (PMC), which was established under the GEF-funded CUTPP, has been expanded and now functions as the project management office for the CSUTP. The PMC is a formal government unit under the MDRC.

B. Results Monitoring and Evaluation

PDO-Level Indicators

Average annual number of traffic accident fatalities in project corridors over a three-year period, which measures the safety impact of the project. From 2007 to 2009, there were 27 fatalities resulting from traffic accidents on the four proposed project corridors # an average of nine per year. It is expected that this accident rate could be reduced by the functioning of ITS, non-motorized transport infrastructure, and safety improvements. The project goal is to reduce the average number of fatalities on project corridors by at least 15 percent, i.e. down to an average of 7.65 deaths per year based on a three-year average during 2013-16.

Average morning peak-hour public transit travel speeds in project corridors, which measures the public transport efficiency impact of the project. By supporting bus priority lanes, improved ITS systems, and junction channelization, the city will be able to move more people during peak hours along the improved corridors, thereby improving the efficiency of the transport system. To measure the efficiency of these measures, the PMC will monitor the average bus journey speeds along project corridors. The project goal will be to improve bus commercial speeds by 20 percent, from the current 13.8 kilometers per hour to 16.6 kilometers per hour.

Public transit user satisfaction survey (% respondents "satisfied" or more), which measures the ability of the project to sustain long-term public transport usage. The project seeks to ensure the city's long term ability to sustain public transit use by improving the safety, security, and convenience of using public transit along the project corridors. Under the GEF funded TA, Changzhi carried out public transit usage satisfaction surveys at select bus stops along the proposed project corridors. The surveys show that 94 percent of respondents were at least "generally satisfied" with current service levels. Given expected increases in overall urban congestion that will accompany Changzhi's current motorization trend, it is expected that this level of general satisfaction will decline over time under the "business as usual" scenario. To measure the success of the project in maintaining a sustaining, high level of services despite external pressures, a project goal is to maintain an overall high level of general satisfaction at over 90 percent. This indicator also takes into consideration of the likely rising expectation of the users for the quality of public transport services. It will be measured in follow up surveys conducted after corridor improvement, at the end of project Year 2 and Year 4.

Annual average fuel consumption per passenger-km (measured in grams of standard coal equivalent per passenger-km) on the project corridors. The project seeks to improve mobility in the central city of Changzhi in an energy-saving manner. This is expected to be achieved through modal shift to public and non-motorized transport as a result of project interventions. The corridor traffic data by mode are available for baseline year, and traffic surveys will be carried out to obtain similar corridor traffic data by mode. Typical fuel consumption level by vehicle type (mainly car vs. bus) will be used to estimate the average fuel consumption per passenger-km on the corridors.

Intermediate Indicators

All intermediate indicators developed for the project will indicate specific progress towards completing the critical project components described in this document. The PMC is responsible for monitoring the progress and completion of the project components as part of its project management activity.

Summary of Intermediate Indicators

Component 1: Integrated Corridor Improvement
(a) Kilometers of existing corridors improved for non-motorized transport (NMT) and with NMT accessibility facilities.
(b) Kilometers of bus priority lanes installed
Component 2: Intelligent Urban Transport Management System
(c) Number of upgraded signalized junctions
(d) Number of auxiliary vehicles procured
Component 3: Public Transport Infrastructure
(e) Number of depots built
(f) Number of public transit bus built
Component 4: Institutional Capacity Development
(g) Number of technical studies completed
(h) Urban travel demand model completed and functional
(i) Number of municipal officials and technical staff trained

C. Sustainability

Changzhi is one of the pilot cities under the GEF-funded CUTPP. Using the GEF grant, Changzhi engaged a team of international and domestic consultants to carry out a Technical Assistance (TA) study, "Strategic Planning for Sustainable Development of Urban Transportation in Changzhi City." This study was unprecedented in Changzhi and was endorsed by the municipal leadership. It became the basis for the identification and preparation of the components of the CSUTP. The strong local ownership and interest throughout the process is a good indicator of long-term commitment.

To maintain the commitment and momentum, the CSUTP includes a strong and extensive program of institutional capacity development actions that target to the short to medium-term capacity needs of the Changzhi. It is also expected that the PMC, which has shown tremendous enthusiasm and professionalism during the preparation of the project, will evolve into a capable professional unit, not only for the project implementation, but also for managing urban transport planning, coordination, improvement, implementation, and monitoring and evaluation. Moreover, to ensure sustainability of the project outcomes into the medium-term, the project includes an extensive capacity-building component, which includes international and domestic training, thematic studies, and urban travel demand modeling tool.
VII. Safeguard Policies (including public consultation)

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