PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: AB5788

Project Name	China GEF City Cluster Eco-Transport Project
Region	EAST ASIA AND PACIFIC
Sector	General transportation sector (100%)
Project ID	P121263
GEF Focal Area	Climate change
Borrower(s)	MINISTRY OF FINANCE
Implementing Agency	
	Ministry of Transport No. 11 Jianguomennei Avenue Beijing China 100736 Tel: (86-10) 6529-3196 Fax: (86-10) 6529-3156 xiahong@mot.gov.cn
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1. Key development issues and rationale for Bank involvement

Transport issues in city clusters

China's transportation is facing a significant challenge in energy saving and CO2 reduction. With rapid economic growth, transportation has become a major consumer of energy and a major source of CO2 emissions in China. According to the International Energy Agency (IEA), the transport sector has already accounted for more than 38% of total crude oil consumption in China in 2007. According to the analysis of the Ministry of Transport (MOT), the amount of CO2 emissions generated from transport—roughly 290 million tons in 2004—is estimated to double by the end of 2015 and reach 1.1 billion tons in 2030. To achieve energy saving and CO2 reduction amid the anticipated continuing rapid growth of transport demand, the sector must seize all opportunities in a strategic way to improve energy efficiency and reduce CO2 emissions. Integrated transport development for the rapidly growing city clusters poses a great challenge for the sector, but also represents a great opportunity.

By definition, a city cluster comprises two or more geographically adjacent cities linked by commuting corridors with increasing social and economic interdependence. It is similar to a metropolitan area, but it contains sizable rural areas in the Chinese context. With rapid urbanization, city clusters are emerging and growing rapidly in China. Take a few examples: Beijing-Tianjin-Tangshan, the Yangtze Delta, the Pearl River Delta, and Changsha-Zhuzhou-

Xiangtan (CZT) in Hunan Province. The transport patterns of city clusters are more complicated than urban transport or inter-city transport at the provincial or national scale. A city cluster is served by urban transport system in each of the cities and the parts of intercity transport systems within the city cluster, as well as systems dedicated to serve the cluster (such as fast-speed passenger rail connecting cities in a city cluster or a metropolitan area). The cities in a cluster would share the inter-city transport services with other major economic centers. In addition to the adjacent cities, a city cluster also covers a number of small towns and rural villages, requiring urban-rural transport integration. Therefore, the integration of transport systems and services at the urban, city cluster and inter-city levels is crucial for the functioning and economic efficiency of a growing city cluster.

However, unlike urban transport and inter-city transport systems which are managed by long-established institutions with relatively clear defined roles, there is no formal institutional set-up for the management and coordination of transport in city clusters. So far, transport modes in city clusters have mostly been developed by individual modal agencies with little concrete consideration of the need for integration. This contributes to system deficiencies, such as difficulties for passenger transfers between modes, inefficient modal operations, congestion for one mode while under-utilization for another, and disincentives for the use of public transport. All these translate into low transport efficiency, increasing reliance on private automobiles and fossil fuels, poor energy efficiency, high CO2 emissions, duplication of investment and over-utilization of land resources for transport infrastructure. Significant opportunities thus exist for achieving better transport efficiency, energy saving and CO2 reduction through integration of individual transport modes in city clusters. MOT recognizes the complexity and potential of transport in city clusters, and plans to promote integrated transport development there through strategic formulation, policy, technical guidelines, and pilot demonstration in selected city clusters.

Located in Hunan Province, the CTZ City Cluster comprises three major cities (i.e. Changsha, Zhuzhou and Xiangtan, all within 40 km to each other), four county-level cities, eight rural counties, and 184 small towns, with a total population of 13 million and an area of 28,000 square km. The cluster has registered annual GDP growth rates over 12 percent for the last decade. The individual modes of transport are quite developed there. The cluster lies at the junction of several national expressways and railways including two new high-speed rails (Wuhan-Guangzhou and Shanghai-Kunming). An intercity fast-speed passenger rail system serving CZT is being planned. Changsha—the provincial capital of Hunan—is implementing its first urban rail line. Since CZT became the pilot experiment region for the development of RS-EF Society, the Hunan Provincial Government is determined to develop or re-develop a number of multi-modal passenger terminals and logistics centers in CZT as a crucial task of integrating the individual modal systems. A great deal of planning work, including CZT City Cluster Regional Plan and Regional Transport Plan, has been or being carried out. To effectively translate the plans into reality and to achieve the desirable outcomes, MOT and Hunan are keen to learn from international best practice experiences in comprehensive transport planning, multi-modal passenger terminal design, multi-modal transport management and institutional arrangement, and comprehensive transport information platform. CZT has a number of on-going and planned multi-modal passenger terminals that possess significant demonstration value if

designed, implemented, and managed according to the criteria of resources-saving and environmental friendliness.

Strategic significance

Developing comprehensive transport and integrating multi-modal services within a city cluster fits well into China's broad effort to save energy and cut CO2. In early 2010, China's top leadership proposed to speed up the transformation of economic development model, from one mainly driven by investment and export and relying mainly on physical resources, to one driven by consumption, investment and export and relying on technological advances, human resources, and management innovation. This transformation will need to be supported by a more efficient, more integrated, and more environmentally friendly transport system. It will also require changes in the ways that transport modes have been developed in China: from individual modal infrastructure development to integrated development, and from emphasis on infrastructure investment to emphasis on both infrastructure and services/operations. As transport energy efficiency is closely related to system efficiency and modal choices, greater integration and efficiency improvement of a multi-modal system are closely aligned to the national target for CO2 reduction, and are consistent with the main strategic direction of the 12th National Economic and Social Development Five-Year Plan for transport. Therefore, it is opportune for MOT to take concrete actions to promote integrated transport development.

Rationale for Bank involvement

The Bank has accumulated 30 years of experiences in supporting transport development in China, including 20 years of experiences in supporting sustainable urban transport. The Bank has in-depth global sector knowledge about all transport modes that are present in the city clusters in China. Moreover, the Bank has maintained good working relationship with China's modal agencies—an important condition for successful collaboration. Through lending operations, the Bank provides the clients with opportunities and resources to access global knowledge and international best practice experiences. The Bank could combine country sector operational experiences with global knowledge from urban and intercity transport sectors, to help MOT and city clusters address integrated transport development issues at the city cluster level. City cluster transport is a new topic for both China and the Bank, but the Bank could add value especially in the areas of multi-modal transport planning and design and integrated transport management within multi-jurisdictions.

2. Proposed objective(s)

The **Project Development Objective** (PDO) is to support the government in the development of a resource-saving and environmentally-friendly society through promoting multi-modal transport integration in city clusters in a way that enhances transport efficiency, saves energy and reduces CO2 emissions. The outcomes will be measured by the following indicators: (i) MOT adopts technical guidelines and standards developed for integrated public transport planning and multi-modal public transport terminal design; (ii) technical capacity acquired for integrated public transport planning and design for city clusters; and (iii) forecast transport CO2 emissions in CZT that implement the multi-modal passenger transport integration under the project are lower than "business as usual" scenario.

3. Preliminary description

The PDO would be achieved through implementation of the project components described in this section. The preliminary total cost estimate is US$25.05 million, including a GEF Grant of US$4.8 million and counterpart fund US$20.25 million equivalent. The GEF grant will mainly fund consultant services while the counterpart fund will finance the civil works associated with the pilot demonstration sub-projects.

Component 1: city cluster comprehensive transport strategy and guidelines. This component will support consultant services to help MOT (i) analyze the transport patterns of city clusters; (ii) propose resource saving and environmentally friendly transport development models; (iii) develop integrated transport strategies, policies, regulations, institutional framework and coordination mechanism; (iv) propose new transport technological choices; and (v) develop technical guidelines for city cluster integrated transport system development. The component will be based on the in-depth analytical works on CZT and other selected city clusters in China.

Component 2: pilot demonstration in CZT City-Cluster, including (i) technical support for the review and refinement of CZT City-Cluster Comprehensive Transport System Development Plan, including policy, institutional and implementation aspects; (ii) technical support to the design of integrated multi-modal transport terminals; (iii) Smart Information System development, such as multi-modal transport information platform for passengers at the terminals; and (iv) pilot demonstration for the design and implementation of multi-modal passenger terminals that would minimize passenger transfer time and inconvenience. Two passenger terminals—the Southern Changsha High Speed Rail Line Station cum Bus and Urban Rail Terminal Complex located at Lituo (also called in a short form Lituo Terminal) and the Western Changsha Terminals—are proposed for pilot demonstration.

Component 3: capacity building. Detailed activities to be included in this component will be defined during further preparation of the above two components. It would include workshops, national and international study tours, and training activities. In particular, it would also support the dissemination of lessons learned from the project and replication to other city clusters.

Component 4: project management and monitoring and evaluation (M&E). This component will support the project management activities of the Project Management Office, and the just-in-time demonstration of the project process and intermediate and final outputs (through on-site workshop to other cities and city clusters).

4. Safeguard policies that might apply

The GEF grant under project will only finance consultancy services and small-size goods procurements. The counterpart fund will finance the costs associated with the construction of selected multi-modal passenger terminals. Safeguard policies that might apply include OP 4.01 Environmental Assessment and OP 4.12 Involuntary Resettlement, because there will be

potential environmental and social impacts associated with the civil works for the construction of multi-modal passenger terminals.

5. Tentative financing

Source:		($m.)
BORROWER/RECIPIENT		20.25
Global Environment Facility (GEF)		4.8
	Total	25.05

6. Contact point

Contact: Zhi Liu
Title: Lead Infrastructure Specialist
Tel: 5788+7733 / 86-10-5861-7733
Fax:
Email: Zliu@worldbank.org
Location: Beijing, China (IBRD)