



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project
THE GEF TRUST FUND

Submission Date:

PART I: PROJECT IDENTIFICATION

GEF PROJECT ID¹: PROJECT DURATION: 48 months

GEF AGENCY PROJECT ID:

COUNTRY(IES): People's Republic of China

PROJECT TITLE: Eco-Transport in City Clusters: Model Development & Pilots

GEF AGENCY(IES): World Bank, (select), (select)

OTHER EXECUTING PARTNER(S): Ministry of Transport

GEF FOCAL AREA (S)²: Climate Change

GEF-4 STRATEGIC PROGRAM(S): CC SP-5 (see preparation guidelines section on exactly what to write)

NAME OF PARENT PROGRAM/UMBRELLA PROJECT (if applicable):

INDICATIVE CALENDAR*	
Milestones	Expected Dates mm/dd/yyyy
Work Program (for FSP)	Jan 2010
CEO Endorsement/Approval	10/01/2011
Agency Approval Date	12/01/2011
Implementation Start	01/01/2012
Mid-term Evaluation (if planned)	06/01/2014
Project Closing Date	12/31/2016

* See guidelines for definition of milestones.

A. PROJECT FRAMEWORK

Project Objective: With rapid urbanization, city clusters--two or more geographically adjacent cities linked by commuting corridors with increasing social and economic interdependence--are emerging and developing fast in China. The transport characteristics of city clusters are different from either intra-city transport or inter-city transport at the national and regional scale. However, there are no clear strategic directions and implementation models for city cluster transport. Developing sustainable transport between cities within a city cluster to meet the rapidly growing travel demand is a new and urgent challenge. This project aims to develop and implement a strategy for city-cluster based sustainable urban transport systems (SUTS), with a pilot demonstration in the city cluster of Changsha-Zhuzhou-Xiangtan, located in Hunan Province in central China. It has an overall goal of increasing the efficiency of resource use, reducing transport energy consumption and GHG emissions while meeting the need for transport accessibility and mobility in city clusters.

Project Components	Indicate whether Investment, TA, or STA ^b	Expected Outcomes	Expected Outputs	Indicative GEF Financing ^a		Indicative Co-Financing ^a		Total (\$) c = a + b
				(\$ a)	%	(\$ b)	%	
1. Development of a strategy for city-cluster based sustainable transport systems (SUTS)	TA	1) Characteristics of city-cluster transport analyzed; 2) Strategy of city-cluster based SUTS developed	1) The city-cluster based resource-saving and environment-friendly SUTS models and the implementation strategy proposed 2) The policy package proposed for shifting to SUTS 3) The smart transport management system designed and technology options analyzed 4) Institutional setup to ensure a shift to SUTS proposed 5) M&E methods established to evaluate SUTS implementation	2,000,000	89	250,000	11	2,250,000

¹ Project ID number will be assigned by GEFSEC.

² Select only those focal areas from which GEF financing is requested.

2. Pilot implementation of city-cluster based SUTS in the city cluster of Changsha-Zhuzhou and Xiangtan (CZX) in Hunan Province	Investment & TA	1) Crucial elements of a city-cluster based resource-saving and environment-friendly sustainable transport system (SUTS) established; 2) improved use of inland waterways, a unique transport resource in CZX which has been neglected and under-utilized; 3) higher share of the public transport, higher use of clean vehicles, clean fuels, and adoption of smart transport management systems; 4) energy and carbon intensity reduced by a percentage set by the GoC.	1) A strategic plan of city cluster SUTS adopted; 2) Policy packages, institutional setup and implementation mechanisms for shifting to SUTS developed; 3) Smart Transport Management Information Systems for inter-change nodes and hubs adopted to optimize the public transport coverage; 4) Physical investments in the construction of crucial elements of SUTS, including multi-modal interchange terminals and other facilities; 5) M&E of SUTS implementation including annual reports of progress and achievements.	1,300,000	7	18,200,000	93	19,500,000
3. Capacity building	TA	1) Government capacity in city clusters in planning and managing SUTS developed and enhanced; 2) M&E for emission reduction in city cluster transport developed and applied; 3) Meeting the national energy-saving and emission reduction targets.	1) Expert committee, consisting of both international and national experts on emission reduction in transport sector; 2) Guidelines for planning of the SUTS contributing to resource-saving and environmentally friendly society; 3) Packages and tool kits developed with training and applications in other city clusters; 4) Support to 1 or 2 other clusters to develop SUTS; 5) International study tours from pilot cities 6) Annual conferences on city cluster sustainable transport	950,000	44	1,200,000	56	2,150,000
4. Monitoring and evaluation	TA	Project implemented as planned and designed	1. Project indicators, M&E instruments; 2. Midterm review; 3. Project evaluation.	250,000	71	100,000	29	350,000

5. Project management		300,000	38	500,000	62	800,000
Total project costs		A4,800,000		B20,250,000		25,050,000

^a List the \$ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

^b TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE and by NAME (in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	Cash	15,250,000
	In-kind	5,000,000
GEF Agency(ies)	Grant	
Bilateral Aid Agency(ies)	Unknown at this stage	
Multilateral Agency(ies)	Unknown at this stage	
Private Sector	Unknown at this stage	
NGO	(select)	
Others	(select)	
Total Co-financing		B20,250,000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Previous Project Preparation Amount (a) ³	Project (b)	Total c = a + b	Agency Fee
GEF financing		A4,800,000	4,800,000	480,000
Co-financing		B20,250,000	20,250,000	
Total		25,050,000	25,050,000	480,000

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

A1. Transport Sector Issues in China's City Clusters

The transport sector generates 10% of China's CO2 emissions. Urban transport accounts for the largest proportion of sector's CO2 emissions. The International Energy Agency estimates that CO2 emissions from China's light-duty transport fleet, which is heavily used in urban areas, will rise by 290% from 65 megatonnes (MT) in 2005 to nearly 300 MT in 2020. Urban transport is thus facing the severe challenge to meet the compulsory national target of reducing the energy intensity by 20% in five years (2006-2010). The city clusters are a new pattern of urbanization and are emerging and growing fast in China. Despite the growth, the issues relating to sustainable transport development within city clusters have not been addressed in a comprehensive manner. A number of problems have emerged, for example:

- (1) Land resources are over exploited for road transport but the advantageous transport resources such as inland waterways are neglected;
- (2) Despite fast increase of the capital investment in highways, city cluster transport demand remains under-served due to shortage of mass transit between cities;
- (3) Increasing use of private cars increases the road congestion, road accidents, GHG emissions and air pollution;
- (4) Uncoordinated intra-city and inter-city transport and inadequate interchange nodes or hubs cause transport bottlenecks;
- (5) Technologies of clean vehicles, clean fuels and intelligent traffic management are available and have been proved to be successful in improving the efficiency and quality and reducing energy consumption and GHG emission, but policies, incentives or capacity for applying and managing them are lacking or inadequate;

³ Include project preparation funds that were previously approved but exclude PPGs that are awaiting for approval.

(6) There is no comprehensive information platform to share transport information in city clusters and to monitor and control the service quality.

These problems are related to insufficient infrastructure, but are more of issues of development approach, institutional arrangements, legal framework, policies and capacity to create, adopt and manage a SUTS. These issues, as identified in a recent World Bank urban transport study, are related to limited national role and lack of appropriate incentives at the local level, inadequate urban planning processes, limited public accountability at the city level. This proposed project is action-oriented, targeting at these problems.

A2. Proposed Solutions in the Project

Climate change is discussed in the framework of sustainable development in China. This project aims to create a strategy to promote and adopt the resource-saving and environment-friendly SUTS, meeting the development and transport demand of city clusters as well as the national targets of energy saving and emission reduction. SUTS aims to improved accessibility, higher transport service quality and efficiency, and lower energy and carbon intensities, achieved through optimized use of transport resources, efficient interchange and connecting nodes, use of cleaner vehicles and fuels, higher percentage of public transport and inland waterways. The project will focus on integrated planning, policy and institutional innovation, incentive mechanisms, capacity building and public participation as strategic solutions, taking the Changsha-Zhuzhou-Xiangtan city cluster as a pilot to explore, assess and test these solutions which would be applied to other city clusters to achieve broader positive changes at the national level. The project will take

- 1.the planning instruments, to promote demand management, public transport priority, BRT and non-motorized commuters, and to improve the high density, mixed land use serving people-community-based multiple functions;
- 2.The management and coordination instruments to raise the efficiency and effectiveness of the existing transport resources, such as inter-city transport hubs and corridors;
- 3.The policy and regulatory instruments, to lead and encourage the investment in the eco-transport systems, to control the existing vehicular population and to phase out the use of old polluting vehicles;
- 4.The fiscal and economic instruments, to discourage unnecessary vehicle trips, and encourage and facilitate markets for clean vehicles, and provide financial sources for public transport improvement through road pricing, congestion charging, parking pricing, and fuel pricing
- 5.The information instruments, to provide the stakeholders with information of available travel options, raise citizen awareness of and support to public transport and high occupancy vehicles (car pool).

The project has four components (see A. PROJECT FRAMEWORK). Component 1 targets at the SUTS strategy at the national level; Component 2 not only tests but also contributes to the development of the national strategy. The two components are implemented in parallel, through consultation and mutual support between the central and local levels. The SUTS strategy of CZX City Cluster will be developed and implemented under the guidance of the national strategy and in the context of local conditions. Component 3 supports capacity building required to enable both institutions and individuals for SUTS implementation. Component 4 supports the project management.

CZX City Cluster is located in Hunan Province in central China. Its economic development is at the moderate level and increasingly constrained by resource and environment factors. The city cluster has a population of 13 million covering an area of 28000 square kilometers. It was selected by the GoC to pilot the strategy of building the resource-saving and environment-friendly society through policy and institutional innovations to stimulate a shift to the desirable pattern of economic growth. The government of Hunan Province and the Ministry of Transport have agreed to take joint initiatives to implement the pilot of the city-cluster based SUTS. A special attention is given to tapping the potential of inland waterway transport as a region-specific unique transport resource with sizable transport capacity, lower energy consumption, lighter pollution and lower requirements for land. The purpose is to explore a feasible pathway of urbanization toward a greater sustainability with lower carbon intensity, which is feasible for China so as to promote the kind of reforms in the same direction nation wide.

A3. Expected Global Environmental Benefits to be Delivered

Transport sector is the fastest growing source of CO2 emission along with rapid urbanization in many developing countries, creating the biggest challenge to the global target. This project aims to meet the national target of reducing energy intensity by 20% in 5 years. Its success will be a major contribution in the urban transport sector to CO2 emission reduction at the global level. The project will provide clear answers in quantified terms (%) to two categories of questions.

1) What is the potential for carbon intensity reduction through three options (optimizing the transport resource use, improving or shifting to public transport and MRT, and enhancing the efficiency and capacity of management), implemented by taking the 5 emission reduction instruments identified above? 2) How does a city cluster monitor and evaluate the reduction of the carbon intensity? These answers will also help confirm exact amount of CO2 emission reduction to be achieved by the project.

Secondly, the fast economic growth for 30 years has made the Chinese economy a model followed by many developing countries. Considering that role of urbanization and motorization in the economy, this project aims to create a sustainable urban transport model (SUTS), as a new development path against business as usual (BAU) approach, to meet the challenges of both developing the economy and enhancing the environment sustainability. The success of the project will provide an important reference for other developing countries.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

GoC established the National Strategy of "Resource-saving and Environment-Friendly Society" in 2004. At the end of 2007 GoC started a new initiative targeting at the city clusters, and approved the city cluster of Changsha-Zhuzhou-Xiangtan as a pilot to implement this strategy. In August 2009, GoC identified combating climate change as a fundamental national development strategy in the Standing Committee of 11th National People's Congress. GoC requires the government at every level and in each sector to integrate "climate change" into the respective long- and mid-term development plans. Meanwhile, GoC encourages efforts to support the policies, planning and demonstrations of "low-carbon" transport. The capacity to deal with climate change is a main challenge in the transport sector.

In this context, it is expected that MoT and GEF jointly launch this project and make CZX city cluster as a pilot, focusing on capacity building, policy and institutional innovations, and crucial physical investment. It is hoped that the project will create a national best/good practice model for city-cluster based low-carbon transport system. Therefore, the objectives of this project are consistent with the strategy set by the GoC.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH [GEF STRATEGIES](#) AND STRATEGIC PROGRAMS:

The proposed project is fully consistent with the GEF 4 Climate Change Focal Area Strategic Objective 7 to facilitate market transformation for sustainable mobility in urban areas leading to reduced GHG emissions and belong to Strategic Program 5 of promoting sustainable innovative systems for urban transport.

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES:

The GEF funding would provide funding to meet incremental costs of activities to achieve global environment objectives in the focal area of climate change. The GEF project would be part of a holistic national plan to identify solutions to address climate change issues associated with the transport sector in a rapid urbanization context. The financing support is in accordance with GEF strategic priority to build technical, human, and institutional capacity as a foundation to conservation and sustainable use of energy.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

GEF has approved the China-GEF-World Bank Urban Transport Partnership Program (CUTPP) with the objective to achieve a nation-wide paradigm shift in city transport and land use strategies to promote public transport within cities.

The currently proposed project, however, aims to (i) address the transport problems specific to city clusters and the integration of rural and urban areas as a whole; (ii) develop comprehensive sustainable transport system, which includes not only roads but also other modes (e.g. waterway, rail, air, etc.); and (iii) directly contribute to China's national strategy of shifting to a low-carbon economy. These two projects do not overlap but are complementary to each other.

F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH [INCREMENTAL REASONING](#) :

GEF involvement will add values in the following aspects. (i) Crossing-country, crossing-sector and multidisciplinary approach is required to deal with the complexity of climate change in the transport sector. GEF involvement will bring in the international expertise from different sectors and fields as catalysts to enable innovations in policy, institutional arrangement, planning and technologies. (ii) An important project activity is development of emission reduction methodology. This methodology will benefit the emission reduction in urban transport sector globally. GEF involvement

is a most appropriate mechanism for development of a public good like this. (iii) As a multi-lateral fund, GEF fund is an appropriate mechanism to leverage the government finance and investment of the private sector in the country. (iv) The project with GEF involvement will generate the city-cluster based sustainable transport strategy and a pilot of the strategy, which fits the new functions and responsibilities shifted to MOT in the state administrative restructuring in March 2008.

G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED, AND IF POSSIBLE INCLUDING RISK MITIGATION MEASURES THAT WILL BE TAKEN:

An integrated Eco-transport development requires strong integration of institutional arrangements administratively and strong capacity and cooperation of individuals at different parts of government and society. This is a risky but also necessary and rewarding task. Once the value of eco-transport model be shared among different sectors, the risk would be managed and reduced through a carefully designed and implemented technical assistance program to substantially enhance the institutional capacity and cooperation at the various levels. The other risk is that the experiences in the pilot province will not be replicated in other provinces and therefore the impact is limited. The risk is believed to be mitigatable through close involvement of the key central government agencies and implementation of a communication strategy through the entire project cycle.

H. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:

The total project cost is estimated to be about US\$ 25.05 million, including \$4.8 million grant support from the GEF. The successful implementation of this project will provide optimal solutions and best practices for a comprehensive eco-transport development, and assist to achieve the targets of resource-conservation, energy-saving and emission reduction set by GoC. Furthermore, the experiences can be demonstrated to other cities and city cluster, and make contribution to regional and global GHG emission reduction.

Without baseline, it is practically difficult to estimate the cost-effectiveness. One major activity in Component 1 and Component 3 is about calculation of the baseline of GHG emission. Detailed cost-effectiveness of this project will be calculated based on actual monitoring results of various project activities.

I. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

The World Bank is well positioned to assist China in implementing this project given its close working relationship with the Government of China during the last two decades, its successful experience in integrating technical assistance and lending operations into the country's own policy agenda in urban, transport and energy sectors and its global knowledge and experience on climate change policy development and financing in these sectors.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)


A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):
(Please attach the [country endorsement letter\(s\)](#) or [regional endorsement letter\(s\)](#) with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
Ms. Liu Fangyu	GEF Operational Focal Point	MINISTRY OF FINANCE	SEPT 29, 2009

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
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Steve Gorman		October 26, 2009	Jiang Ru	202-473-8677	jru@worldbank.org
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