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The World Bank

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GEF PROJECT BRIEF
ON A
PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND
IN THE AMOUNT OF USD 21.0 MILLION
TO THE
PEOPLE'S REPUBLIC OF CHINA
FOR AN
GEF CHINA WORLD BANK URBAN TRANSPORT PARTNERSHIP PROGRAM
April 25, 2007
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CURRENCY EQUIVALENTS

(Exchange Rate Effective {Date})

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USD = SDR1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ASIF	Activity, Structure, Intensity, and Fuel Choice
APO	Adaptable Program Operation
BRT	Bus Rapid Transit
CAS	Country Assistance Strategy
CDM	Clean Development Mechanism
CNG	Compressed Natural Gas
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
DRC	Development and Reform Commission
EA	Environmental Assessment
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
ExA	Executing Agency
GEF	Global Environmental Facility
GHG	Greenhouse Gas
GoC	Government of China
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development (The World Bank)
ICT	Institute of Comprehensive Transportation
MLR	Ministry of Land and Resources
MoCn	Ministry of Construction
MOST	Ministry of Science and Technology
MPS	Ministry of Public Security
NDRC	National Development and Reform Commission
NGO	Non-Governmental Organization
NMT	Non-Motorized Transport
NO _x	Nitrogen Oxides
OP11	Operational Program Number 11 of GEF
PAD	Project Brief
PDF	Project Development Facility
PM	Particulate Matter
PM ₁₀	Particulate Matter 10 microns and less in diameter
PMO	Project Office

SDR	Special Drawing Rights
SEPA	State Environmental Protection Agency
SIL	Specific Investment Loan
STAP	Scientific and Technical Advisory Panel
TA	Technical Assistance
TOR	Terms of Reference
UK	United Kingdom
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USD	United States Dollar
VKT	Vehicle Kilometers Traveled
WB	World Bank

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PEOPLE'S REPUBLIC OF CHINA
GEF China World Bank Urban Transport Partnership Program

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A. STRATEGIC CONTEXT AND RATIONALE

1. Country and sector issues

Project Rationale

Greenhouse gas (GHG) emissions from China's urban transport sector are rising very fast, because of explosive growth in car ownership and use. Motorization is also causing severe urban road congestion and worsening urban air quality. As China's national and municipal leaders recognize, a nation-wide paradigm shift in city transport and land use strategies to promote public transport is urgently required. This project will achieve that paradigm shift.

China's urban transport sector is a large, alarmingly fast-growing source of GHG emissions and a major cause of urban air pollution. China already is the world's second largest emitter of greenhouse gases (GHG) and will soon become the largest. Transport is the fastest-growing source of emissions, thanks to moderate success in controlling emissions from industrial and energy sources. The most powerful driver of the fast growth in transport CO₂ emissions is rapid motorization, particularly in China's urban areas. The International Energy Agency estimates that CO₂ emissions from China's light-duty transport fleet will rise from 65 MT in 2005 to nearly 300 MT in 2020, an increase of 290 percent. Most of this growth will be from urban transport. Explosive motorization is also causing severe urban traffic congestion and worsening urban air pollution.

Today, municipal leaders are under pressure to deliver sustainable solutions to these urban transport challenges. For the past 20 years, most cities' response to rapid population, income and car ownership growth has been to invest massively in roads. Through these investments – averaging several billion dollars per year – cities have developed road networks that are orders of magnitude superior to those of two decades ago. But now the realization has dawned, at both national and city levels, that this is not a sustainable urban development strategy.

Promoting public transport networks and strengthening the ability of walking and cycling to support those networks can address these local, national and global concerns. National-level policy makers recognize the need for a paradigm shift in urban growth and transport plans, and have begun articulating the need for it. For example, the State Council (Opinion #46 in October 2005), the Ministry of Construction, as well as the highest levels of Chinese leadership, have urged cities to give priority to public transport through official documents and public announcements. If vigorously and effectively promoted, a national pro urban public transport development strategy would slow the growth in transport GHG emissions, improve urban air quality and provide better transport services for the vast majority of urban dwellers who don't own a car. In so doing, it would also slow both automobile *ownership*, and more importantly, automobile *use*.

Promoting and strengthening public and non-motorized transport will require concerted efforts at both the national (enabling environment) and local levels, as well as targeted activities to bridge those two loci of activity. On its own, the national government's efforts to translate its sustainable urban transport vision into concrete action at the city level are stymied by structural and institutional barriers. The barriers, as identified in a recent World Bank urban transport study, are a limited national role and lack of appropriate incentives at the local level,

outdated urban planning processes, limited public accountability, and weak urban transport institutions at the city level.¹ Unlike most developed and many developing economies, national and provincial authorities in China do not play a significant role in urban transport planning, financing, or management. Under the country's decentralized governance structure, primary responsibility for dealing with urban transport rests with municipal governments. Consequently, a *new strategic national urban transport initiative* to develop financial and other bridging mechanisms, so that the national government can more effectively express its interests in sustainable urban transport solutions; *complemented by progressive city demonstrations*, that provide high profile alternatives to the business-as-usual scenario, is needed to break the impasse.

This proposed China–GEF–World Bank Urban Transport Partnership Program (CUTPP) will achieve this paradigm shift. The proposed project will overcome the key barriers at the national level to achieving this paradigm shift by (i) developing and promoting a National Sustainable Urban Transport Strategy and detailed planning guidelines, (ii) disseminating good sustainable urban transport development practice, (iii) developing a large cadre of sustainable urban transport specialists by improving training quality and availability, and (iv) promoting progressive urban transport research. At the local level, it will catalyze, through advocacy, planning support and investment incentives, at least 14 high-profile city sustainable urban transport demonstration sub-projects, at least 4 of which will be World Bank co-financed. These sub-projects will illustrate successful pro-public transport investments and strategies and trigger replication by at least 25 cities. Furthermore, the project will promote intensive catalytic interaction between local and national transport officials, as it has already done through competitive selection of the pilot demonstration cities.

2. Rationale for Bank involvement

The World Bank is ideally positioned and uniquely suited to support this process. The World Bank has extensive experience – both in China and around the world – with the development of institutional mechanisms and policies for sustainable urban transport plans, pro-public transport solutions, particularly development of Bus Rapid Transit (BRT) systems, integration of non-motorized modes into transport systems, and demand management approaches. Additionally, the Bank has a long and productive working relationship with the relevant authorities in China, at both the national and local levels, on urban transport issues. It has provided over US\$1 billion in loans for ten urban transport operations, including the Liaoning Medium Cities Infrastructure Project, the Urumqi Urban Transport Project and the Guangzhou Urban Transport Project, all of which will co-finance some of the pro-public transport activities proposed in this operation. A proposed World Bank financed urban transport investment project under preparation in Xian will also co-finance new pro-public transport initiatives catalyzed by this project.

3. Higher level objectives to which the project contributes

The project is designed to support the Chinese National Government's efforts to support public transport priority as articulated in various announcements by national agencies including the

¹ World Bank: Building Institutions for Sustainable Urban Transport in China. EASTR Working Paper No. 4 Zhi Liu and Graham Smith, January 2006

State Council and the Ministry of Construction. In addition, the National Guidelines of the 11th Five-Year Plan (2006-2010), pay special emphasis on resolving urban transport issues and conserving energy based on public transport. The Plan specifies a directive target of 20% reduction in energy intensity per unit GDP.

This Project is a key element of the Bank's near-term operational strategy for the urban transport sector in China, as articulated in an analytical report published in 2006. The report identifies the critical role of this Project in providing a platform for (i) an enhanced policy dialogue with national government; (ii) supporting initiatives at the national level to provide guidance to the cities; and (iii) developing a Strategic Framework for future lending operations.

The project is also consistent with the 2006-10 Country Partnership Strategy (approved by the Board on May 23, 2006), which is built upon five thematic pillars of which three are directly relevant to the proposed project (Pillar 2: Reducing poverty, inequality, social exclusion, Pillar 3: Managing resource scarcity and environmental challenges, and Pillar 5: Improving public and market institutions). Specific CPS objectives to which the proposed project contributes are: building the capacities of the poor (Pillar 2), by improving accessibility; facilitating the migration of surplus rural labor to the urban areas (Pillar 2), by improving the absorption capacity of urban transport systems; building a resource-efficient society (Pillar 3), by facilitating high levels of accessibility with lower energy needs; observing international environmental conventions (Pillar 3); and rationalizing intergovernmental fiscal relations (Pillar 5), by facilitating dialog on urban transport at the national level.

The overall program is consistent with the programmatic goals of GEF Operation Policy 11 and the GEF Strategic Priority in Climate Change focal area (CC-7), including that the project: (a) is country-driven and supports governments' efforts to promote sustainable development; (b) strives to leverage other funds; and (c) demonstrates cost-effectiveness of different measures to reduce GHG emissions associated with transport and facilitate a market transformation for mobility choices.

B. PROJECT DESCRIPTION

1. Lending instrument

The Project is proposed as a 3-year GEF grant, following the structure of a Bank Specific Investment Loan.

2. Project development objective and key indicators

2.1 Key objectives

Project development objective: 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.

Global Environment Objective: Slow the forecast growth of urban transport GHG emissions in China's cities.

2.2 Key indicators

- Urban transport policy-makers in central government adopt mechanisms and technical products such as guidelines, manuals and standards that produce investments, policies and strategies at the local level that promote public transport and non-motorized transport.
- At least 10 of the demonstration cities and at least 25 cities not participating in the project implement investments, urban land-use and transport policies and transport investment programs that promote public and non-motorized transport within the next 6 years.

3. Project components

Component 1: Strategy Development and Capacity Building at the National Level (Total financing: USD32.00 million; GEF co-financing: USD7.00 million)

Component 1 will support the development of financial mechanisms, capacity building initiatives, and dissemination mechanisms to effectively bridge the gap between the national government's interests in sustainable urban transport and the local decision-making environment at the municipal government level. The activities in this component will help address the key institutional barriers to effective implementation of sustainable urban transport measures by supporting (i) the identification and adoption of financial and other mechanisms for the national government to influence urban transport investment decisions at the local level, providing incentives to favor sustainable transport solutions; (ii) the development of institutional knowledge products, such as databases, manuals, planning guidelines and regulations to help local governments effectively implement sustainable transport solutions; (iii) dissemination activities that increase the awareness of sustainable urban transport among local decision-makers, the public and concerned professionals; and (iv) monitoring and evaluation activities that will underlie a larger replication effort. It comprises 1A - Development of a National Urban Transport Strategy; 1B - Training and Capacity Building Efforts at the National Level; 1C - Dissemination and Awareness-Raising Activities; and 1D - Monitoring and Evaluation. The total project cost was estimated to be US\$32 m including proposed GEF co-financing of US\$7 million.

Component 2: Pilot Demonstration Projects in 14 Cities and 1 Province (Total financing: USD572.75 million; GEF co-financing: USD13.00 million)

Component 2 catalyzes a series of high profile demonstration projects that will create models of sustainable transport solutions for other Chinese cities to replicate. Demonstration projects in 14 cities and 1 province have been selected through an extensive competitive process initiated and driven by the national government. (Details of the selection process are shown in Annex 19). The GEF component of the financing would cover technical assistance related to the pilot

projects, while co-finance from the cities and, in some cases, World Bank projects, would cover civil works. The primary initiatives proposed for financing in the demonstration cities include (details in Annex 4 of the Brief) support:

1. Development of Bus Rapid Transit (BRT) systems in Chongqing, Dongguan (Guangdong), Luoyang, Zhengzhou (both Henan), Jinan, Weihai (both Shandong), Xian (Shaanxi), and Urumqi (Xinjiang);
2. Development of strategic plans to provide priority to public transport, leading to enhanced public transport service, integrated with non –motorized modes in Changzhi, Linfen (both Shanxi), Jiaozuo (Henan), Xianyang (Shaanxi), Nanchang (Jiangxi), and the cities of Benxi, Fushun, Jinzhou, Liaoyang, and Panjin in Liaoning;
3. Development of a short-term low cost action plan to increase ridership on Chongqing’s urban rail line that has been under operation since 2005.
4. Development of demand management measures in Guangzhou (Guangdong), Jinan (Shandong) and Xian (Shaanxi); and
5. Transit-oriented development in the Binjiang and Chaoyang districts of Nanchang in Jiangxi and between the second and third ring roads in Xian (Shaanxi).

Component 3: Project Management (Total financing: USD2 million; GEF co-financing: USD1.00 million)

This component will support the PMO at the national level to implement the national component as well as support and supervise the pilot cities component.

Table B.3.1. Summary of Project Costs*

(in USD)

Component/Task	GEF (1000\$)	GoC (1000\$)	Cities (1000\$)	WB (1000\$)	Total (1000\$)
Component 1: Strategy Development and Capacity Building at the National Level					
Task 1A. Development of a National Urban Transport Strategy	1,000	500	-	-	1,500
Task 1B. Training and capacity building efforts at the national Level	3,000	1,900	20,000	-	24,900
Task 1C. Dissemination and Awareness-Raising Activities	2,000	2,040	-	-	4,040
Task 1D. Pilot Cities Monitoring and Evaluation	1,000	560	-	-	1,560
Total Component 1	7,000	25,000	-	-	32,000
Component 2 – Pilot Demonstration Projects in 14 Cities and 1 Province					
Demonstration Projects	13,000	-	376,750	203,000	572,750
Component 3 - Project Management	1,000	1,000			2,000
Total Project	21,000	6,000	376,750	203,000	606,750

Note: The World Bank financing is being processed separately.

4. Lessons learned and reflected in the project design

The Bank has a long-standing involvement in the urban transport sector and in China. The Independent Evaluation Group and the Quality Assurance Group assessments of the Bank's infrastructure portfolio in China have confirmed satisfactory project implementation, outcomes, and project management. Specific design decisions based on lessons from past experience include:

- **Role of the National Government is critical, but needs to be well defined.** In large, heterogeneous countries with many cities, the National Government has a strategic interest in urban transport. The National Government needs to identify mechanisms that rely on the *planning process* to effectively intervene express this interest in equity (particularly with respect to the accessibility, air quality, and safety of the most vulnerable), efficiency in the use of assets and investments, fuel use and, increasingly, climate change. How the National Government expresses those interests is critical, however. It is important that individual investment projects still be conceived and developed by local governments and communities, who have the best understanding of their local needs. It is also important that, if the national government has a direct role in financing particular projects, those cost-sharing arrangements be designed in such a manner as to minimize the potential distortions from the 'other people's money' syndrome. *A central focus of the national component is to identify mechanisms for the national government to identify and express its interest in the sector in view of these lessons.*
- **Because many agencies are involved in urban transport, institutional inertia is a heightened risk in this sector.** Many national and local agencies have a role in urban transport, with the result that, in many countries, urban transport often falls through the cracks; different agencies related to land, environment, infrastructure and investment having a fragmented role in the sector. In China, several ministries have different roles in the sector: Ministry of Finance oversees financial sustainability, NDRC approves guiding investments Ministry of Construction approves masterplans and providing guidelines for urban transport, Ministry of Land Resources approves acquisition of peri-urban land, Ministry of Public Security addresses traffic safety issues, and SEPA has jurisdiction over environmental issues. In such an environment, there needs to be flexible arrangements to ensure effective communication and movement. *This Project has been prepared by, and is being implemented by a Steering Group, led by Ministry of Finance that includes all these agencies and includes representatives from the Association of Mayors.*
- **Political commitment is best obtained by relying country systems.** Bank's experience in China and elsewhere is that there is a lot of value in relying on country systems to establish political and institutional commitment. In this project the demonstration cities and projects were selected primarily by the Project Steering Committee. The Bank reviewed and commented on the selection process and is appraising the content of the proposals, but it is *the Project Steering Committee led by Ministry of Finance that has obtained commitments from the Project Cities to implement investments related to the GEF co-financed activities.* This commitment is likely more meaningful and stronger than an equivalent direct commitment to the Bank.

- **The Bank's value-added is highest upstream in the project cycle, during project conceptualization.** Selection process is critical to developing good projects and there is value in moving the Bank's intervention upstream in the process. Demonstration cities were *chosen* competitively based on their track record on promoting public transport and the quality of their proposals. The Bank's experience suggests that such a process ensures that GEF resources are allocated to cities with the highest alignment of interest with GEF objectives and thus the highest potential to achieve results. A consequence is Bank review and guidance in shaping project *concept*, early in the planning process. This is unusual in the Bank's work in China, where projects are often presented to the Bank, after a concept has been finalized, based on a variety of factors in addition to technical context.
- **Guiding planning processes at the local level.** To reflect lessons from international experience in sustainable urban transport outcomes, the Bank review has focused on ensuring that all of the demonstration city plans include a focus on:
 - *Inclusive processes.* Cities are preparing plans for structured public participation approaches that guide project design and monitor subsequent performance in light of the successful use of such approaches in Liaoning (see Annex 15).
 - *Institutional coordination.* The implementation arrangements in each city reflect an attempt to create coordination bodies that can circumvent the pitfalls of the fragmentation of responsibility in the urban transport sector in China and eventually provide a template for reform.

5. Alternatives considered and reasons for rejection

Initially a Phased GEF intervention was planned, with an initial Phase (which was approved for pipeline entry in November 2004) focusing only on the national component. However, once the selection process for the demonstration cities started, it was clear that given the pace at which Chinese cities operate, further delay in processing the demonstration city projects would render the selection meaningless; cities would not wait for a second phase to complete their planning efforts and implement their current proposals. After review, the Ministry of Finance and the Steering Committee suggested and the Bank agreed, on enlarging the scope and size of the originally conceived project into its current form.

In light of GEF's interest in multilateral cofinancing, consideration was given to linking GEF demonstrations only to cities already preparing or implementing urban transport investment projects. However, this proposal was rejected; it was unclear if such a selection process would identify either the cities or projects most consistent with GEF's objectives and interests. It was judged that the incremental value of a GEF intervention that did nothing but provide grants to 'soften' the terms of existing IBRD interventions would be minimal. The power of the GEF intervention is the opportunity it provides to identify cities most conducive to sustainable transport approaches. As discussed earlier, the selection process ultimately used played an important role in ensuring that scarce GEF financing was used to identify and encourage the cities with the highest potential. As it has turned out, 4 demonstrations are linked to ongoing projects. Moreover, the GEF intervention is creating a series of high quality investment proposals that will result in future Bank interventions being selected from a pool of high-quality proposals with a strategic upstream guidance from the Bank. This in itself is an important strategic outcome.

C. IMPLEMENTATION

1. Partnership arrangements

Discussions had been initiated during preparation with UNEP, which was active and interested in this program. In light of GEF's revised vision for different agencies, UNEP decided not to participate. Discussions are ongoing with GTZ to establish a partnership that leverages their strong base in training related activities in China.

Coordination is also ongoing with the Energy Foundation, a civil society organization that is active in the urban transport sector in China. The Energy Foundation has financed and remains active in many of the Project cities including Xian, Chongqing and Jinan. Their efforts have been closely coordinated with the preparations of demonstration city proposals in Chongqing and Jinan and in Xian their efforts are closely integrated with the preparation of the Bank-financed project. They are also supporting elements of the National Program, specifically supporting elements of Ministry of Construction's campaign to promote public transport priority.

Coordination is also ongoing with ITDP, a US-based international civil society organization that is active in urban transport in China. ITDP is active in supporting the development of a BRT system in the demonstration city of Guangzhou. They have expressed an interest in supporting one of the Project cities to implement their BRT systems. They are also supporting the Ministry of Construction's campaign to promote public transport priority.

Finally, the PMO has also initiated discussions with the multilateral Clean-Air initiative Asia (CAI Asia) [a city based information gathering and advocacy non-governmental organization supported by the Asian Development Bank] under the auspices of the CAI-Asia led SUMA initiative (Sustainable Urban Mobility in Asia) that includes GTZ, ITDP and EMBARQ, a civil society based organization working in the urban transport sector that has been active in China in the recent past.

2. Institutional and implementation arrangements

China's Ministry of Finance (MOF), the GEF Focal Point for China, will be fully responsible for executing and coordinating the project in China. The World Bank will serve as the designated Implementation Agency for GEF for the Project.

A Project Steering Committee and Project Office (PO) have already been set up. The former consists of members from the MOF, NDRC, Ministry of Construction (MoCn), Ministry of Land and Resources (MLR), Ministry of Public Security (MPS), State Environmental Protection Agency (SEPA), and China Association of Mayors. The Steering Committee will play a key role in ensuring high-level inter-agency coordination and guiding project implementation.

The Project Office is led by chief of the MOF's International Department and supported by a Project Office staffed by adequate technical staff. The Office will be responsible for daily project management and liaison, task programming, and training and promotional activities.

Partnerships are being negotiated with Universities that would participate in the academic elements of the training program and Institutes that would house and maintain the capacity building tools developed in the project.

The project has also set up a Project Expert Panel, which includes experts recommended by the NDRC, MoCn, MLR, MPS, SEPA and China Association of Mayors. This Panel will provide advice on project design and project studies and review technical reports.

Liaoning Province and each of the 14 Pilot Demonstration Cities have set up adequate implementation arrangements (details in Annex 6).

3. Monitoring and evaluation of outcomes/results

The main outcome indicators for the project are listed in Annex 3, as well as the outcome indicators for each component. The MOF, PO and pilot city governments will regularly collect the data required for monitoring and evaluation of outputs, outcomes and results. The PO will be supported by a technical team that will focus on monitoring and evaluation as one of their primary tasks. This monitoring and evaluation function has been identified as a separate line item within Component 1 (Task 1D), with a specific budget allocation.

4. Sustainability and Replicability

Sustainability. The project design addresses key concerns about the sustainability China's urban transport systems raised in earlier Bank analytical work. Specifically:

- GEF's support for a national level coordination and review mechanism would address a key structural impediment to effective national-level guidance to promote and institutionalize sustainable urban transport policies in the recent past; i.e. the absence of any oversight structure to balance decentralization of urban transport investment and management in China.
- The formal planning guidelines on urban transport will significantly influence the manner in which cities address urban transport issues. Cities do attempt to respond to formal recommendations (such as those made by the Ministry of Construction on promoting public transport priority), but in many cases this guidance is not detailed enough at the operational level to facilitate effective implementation. The planning guidelines that will be developed under the project will fill this crucial gap and thus make for more sustainable urban transport planning and management. Most of the guidelines created will be issued under the authority of the Ministry of Construction. The Steering Committee has indicated that some of the guidelines will be issued by the Steering Committee together.
- The capacity building program will support the development of training programs and tools that will support long-term capacity building. Academic curriculum development will be housed at the partner universities. The training programs and technical manuals will be housed at the partner Transport Institutes at the national and local levels. NDRC has expressed an interested set up an 'green transport' institute concurrently with this Project that would take ownership and responsibility for the maintenance of the capacity building products of CUTPP. Additionally, two existing institutes, the Institute for Comprehensive Transport under NDRC and a new Public Transport Institute set up in Jinan have also expressed interest in these materials.

The demonstration projects provide the basis for a high-impact demonstration program. The GEF co-financing addresses a key technical risk; in the absence of the GEF, many of these projects would have been implemented without adequate technical input, review or oversight. The project cities have already demonstrated a high level of political will that illustrates their commitment to implementation. Mayors of ten of the fourteen cities met with the Bank mission (nine in Beijing and one on-site) as part of a review prior to this submission to express their commitment to project implementation. This unprecedented official expression of commitment, a result of the selection mechanism (that identified cities with an interest and track record in promoting public transport) and process (the ownership and oversight provided by the national level agencies) is a clear indication that there is high likelihood that the GEF co-financing will produce impacts, regardless of the financing sources for eventual investments. In the cases where the Bank is formally involved in a follow-on investment – apart from the four cases already identified, virtually all the demonstration cities expressed an interest in a follow-on Bank loan focused on public transport investments – that involvement will further support implementation.

Replicability. Replicability and demonstration effects are fundamental to the manner in which innovations are mainstreamed in China. The Steering Committee structured the pilot project selection process accordingly. Proposals were solicited from nine provinces distributed geographically throughout the country, precisely to enhance the demonstrative nature of the projects: three in the East (Liaoning, Shandong and Guangdong), three in middle China (Jiangxi, Henan and Shanxi) and three in the West (Shaanxi, Chongqing and Xinjiang). In addition, the cities were asked in their proposals to reflect upon and identify the particular demonstration potential of their proposed projects. Their responses were a key component of the selection criteria. The final outcome is a set of cities that mirror the mix of size and regional characteristics found throughout Chinese cities, and a set of projects whose demonstrative effects have been incorporated into their very conceptualization.

Chinese cities are continuously learning from successful ideas and initiatives elsewhere in the country and cities that reflect successful demonstrations (and their leaders) see an increase in profile, prestige and stature. Indeed, the cities made clear, in some cases explicitly, that the title of ‘GEF-sustainable transport demonstration city’ was as important to them as the GEF co-financing and the technical expertise that the Bank-GEF association bring to the city.

The Project design reinforces this inherent proclivity towards replicability. The dissemination sub-component includes a series of workshops where the demonstration cities experience will be shared, discussed, analyzed and evaluated.

5. Critical risks and possible controversial aspects

Potential Risks	Proposed Mitigation Measures	Risk Rating with Mitigation
To Project Objectives		

Potential Risks	Proposed Mitigation Measures	Risk Rating with Mitigation
Revised strategy will not be adopted and implemented	Use of a Project Steering Committee made up of representatives from all relevant agencies from across the national government mitigates this risk. Focus on other national-level activities in addition to strategy development also reduces performance risk.	M
Investments needed to obtain CO2 benefits of GEF co-financed activities in demonstration cities will not materialize	Selection mechanism (track record) and process (internal commitment to Steering Committee) reduces this risk. Also, cities are looking for ‘GEF demonstration city’ title. Title and designation will be withheld until investments successfully implemented. Also, Bank co-financing 4 of the demonstrations. All other cities are looking for Bank loans.	M
To Project Component Results		
Several small demonstration city projects – project management will be a serious issue	Project includes small but important stand-alone project management component. The Project Office has been active during preparation and done an admirable job managing city proposal development process	M
Several small demonstration city projects – quality control will be an issue	PO will be supported by a monitoring and supervision consultancy that will play a vital role providing technical input, review, oversight, and evaluation of city demonstrations. This will be a significant value-added element of GEF Project.	M
Several small demonstration city projects – Bank supervision and control	Additional supervision budget will be requested from GEF and Bank. Demonstrations associated with Bank urban transport Projects (Xian, Liaoning, Urumqi and Guangzhou) will be primarily managed by task team managing Bank-financed project	M
FM/Procurement risk at the city level	Most of the cities have experience with some Bank projects. Mitigation measures for the rest will be designed at appraisal based on detailed FM/procurement assessment	M
Overall Risk Rating		M

Note: High Risk – H, Substantial Risk – S, Modest Risk – M, Low or Negligible Risk – N.

6. Loan/credit conditions and covenants

To be finalized at appraisal

D. APPRAISAL SUMMARY

1. Economic and financial analyses

The project will finance a series of technical assistance activities. In the case of the demonstration cities, the project will support the development of Bus Rapid Transit corridors, integrated public transport and non-motorized transport development plans, demand management measures, plans for transit-oriented development and in one case a short-term action plan to increase ridership in an existing rail line. The Bank’s experience in China and elsewhere suggests that all of these investments have high returns with desirable distributional benefits. That said, all of the technical assistance activities will integrate economic and financial analysis into the planning process.

2. Technical

The national component of the project was prepared by well regarded domestic consultants with a good understanding of the urban transport sector and the Chinese institutional context. It was reviewed from a technical perspective by a high-level technical working group that includes senior representatives of all the Ministries participating in the Steering Committee. The Steering Committee reviewed the reports and provided an institutional endorsement of them. The Bank provided detailed feedback to the consultant reports at various stages to reflect the lessons from international experience. In the Bank's assessment, the component design (i) reflects a thorough diagnostic of the limitations of China's current institutional structure regulating urban transport that includes all the issues raised in the Bank's own independent analytical diagnostic; and (ii) devises an appropriate, multi-pronged strategy to address the shortcomings. The design of the national component includes a series of mutually reinforcing actions that can address the understood institutional shortcomings and put China on a path towards the development of more appropriate – as well as climate-friendly – urban transport systems.

The demonstration city projects were focused on nine priority provinces chosen by the Steering Committee, balancing possible priority provinces for future World Bank lending with the need to include projects and cities with adequate demonstration potential. Proposals were solicited from cities based on selection and appraisal criteria discussed with (and reviewed by) the Bank (see Annex 19). These criteria reflect an appropriate balance of the city's track record in supporting public transport, their interest in developing projects consistent with GEF's objectives, and the demonstration potential in terms of replicability and innovation. The proposal process was guided by well-regarded domestic consultants who had a good knowledge of GEF's interests, the Chinese national government policy on prioritizing public transport, as well as the actual conditions in the proposed project cities. The proposals presented to the GEF reflect extensive technical discussions between the cities and the consultants, a technical peer review by the technical working group supporting the Steering Committee and a review by the Steering Committee. They also reflect the results of a 2-day workshop in Beijing in February 2007, where the Bank team met with representatives from the project cities (including the Mayors of 9 of the cities) followed by site visits to the cities of Jinan, Chongqing and Nanchang, cities with innovative proposals and a strong interest in follow-up Bank financing.

The Bank's review focused on ensuring that the GEF co-financing proposals were consistent with OP11 objectives, priorities, and eligibilities, implementable within the political and economic context of the particular city, incremental and innovative with respect to OP11's requirements; and reflective of Chinese and international best practices vis-à-vis stakeholder participation, institutional coordination and integration, and monitoring and evaluation.

The conclusion of that assessment is that indeed the project is consistent with OP11 objectives, implementable, incremental, and innovative, and reflects national and international best practices. The project design also reflects a significant step forward in the dialogue and discussion on the urban transport sector in China.

3. Fiduciary

To be finalized at appraisal

4. Social

The project supports the development of institutions, policies and projects that support the promotion of public transport in China's cities. Fundamentally, this public transport oriented vision embodies images of livable cities that are socially equitable, environmentally friendly, highly efficient, financially viable, and economically competitive. The project also emphasizes that effective urban transport systems and sustainable land development need to fully consider the sensitivity of the local social context.

In particular, the national component is designed to help the national government identify and express its interest in urban transport more effectively. Social considerations are a key element of that interest: including the transport needs of and impacts on (safety, air quality, and peri-urban land conversion) the most vulnerable, that infrastructure investments are made prudently using a process that appropriately reflects the public interest and needs.

The demonstration city proposals support the development of public transport, pedestrian and bicycle facilities, all of which will have desirable distributional benefits. Public participation is a key feature of the project design (see Annex 19 for details of stakeholder participation). Chinese and international experience repeatedly shows that properly structured, public participation supports development and implementation of projects with widespread social benefits and helps to minimize adverse benefits.

The project co-finances technical assistance and no works are anticipated. Neither OP4.12 (involuntary resettlement) nor OP4.10 (indigenous people) is triggered. All the terms-of-reference for the technical consultancies for both the national component and the demonstration city component will incorporate an appropriate review of all social considerations.

5. Environment

Since the project co-finances only technical assistance and no works are anticipated OP4.01 (environmental assessment) is not triggered. That said, all the terms-of-reference for the technical consultancies of both components will incorporate appropriate reviews of all environmental considerations.

The project is designed to have a positive long-term impact on the local, national and global environment due to the reduction in GHG and local emissions from mobile sources in China's cities. Significant reductions in CO, CO₂, NO_x, SO_x, particles, and other contaminants are projected, particularly in selected pilot cities. The reduction will be directly linked to improved public transport operations, reductions in motorized trips, particularly on private modes, reduced trip lengths, and use of more environmental-friendly modes of transport.

6. Safeguard policies

Table D.1 Safeguard Policies Triggered by the Project

	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cultural Property (OPN 11.03 , being revised as OP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OP/BP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Projects in Disputed Areas (OP/BP 7.60)*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Projects on International Waterways (OP/BP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7. Policy Exceptions and Readiness

This project complies with all applicable Bank policies. This project will be ready for implementation upon Board approval.

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

Annex 1: Country and Sector or Program Background

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Urban Transport In China

Issues and Trends

During the last 10 years, major cities in China have experienced changes in the nature and magnitude of urban transport problems. *Car ownership has been increasing rapidly*, with 24 million motor vehicles registered in 2004 alone (about 20 percent of which are estimated to be privately owned cars). Car sales, which have been increasing at more than 30 percent annually in recent years, are forecast to continue to see annual double-digit growth for the foreseeable future. Most cars are owned and used in urban areas, especially the more affluent major cities along the coasts. Beijing itself has almost 2 million motor vehicles, of which 1.5 million are cars.

This rapid motorization has been accompanied with a series of complementary reinforcing trends:

- **Urbanization faster than expected:** The rapid growth of urban manufacturing and service sectors continues to attract the influx of rural surplus labor (floating population). Recognizing the role of urbanization in national economic growth, the Chinese government has quietly relaxed various policies designed to limit rural-to-urban migration. In the period between the present and 2020 over 13 million rural residents are expected to migrate to cities annually, participating in the largest such migration the world have ever known.
- **Increasingly diversified urban population:** The rapid growth of a middle-income class, the aging of the urban population, and the influx of low- income young laborers in major cities pose an increasingly diversified range of demand for urban transport services in relation to quality, destination, and affordability.
- **Structural changes in urban land-use patterns:** During the last 20 years several trends have been associated with the breakdown of the joint work-residential location arrangements under the centrally planned economy, including declining gross residential population density at the city centers, increasing job density in city centers, and the general decline of overall population density across urban areas. Other new trends are now emerging, such as residential location choice by income sorting, large-scale residential development in suburban areas for middle- to high- income groups, large informal residential settlements for floating populations in urban fringe areas, and perhaps most importantly, the emergence of cross-jurisdictional metropolitan areas and conglomerations.

For the most, the *response to these trends, led at the decentralized level by local mayors, has been an unprecedented investment in urban roads*. Though China's cities started the economic liberalization process in the early eighties with relatively limited road networks, the levels of investment in the last two decades have been extraordinary. The municipality of Shanghai itself has spent about US2-3 billion dollars a year on road infrastructure. Beijing is said to have spent up to 3-4 percent of its gross regional product on roads. Though exact numbers are difficult to

obtain, it is likely that annual expenditure on urban roads is well over US\$20 billion dollars a year annually.

Concerned with the increasing numbers of cars on the roads, leaders and professionals alike have focused on increasing road network capacity through new construction, or by reducing the amount of road space available for NMVs. However few cities seem to follow a systematic approach to investment decisions, which seek to identify problems, examine options, select the most cost effective solution, and then produce a time based prioritized investment program. Many wish to: (a) build roads into areas designated for development, in order to use the money from land sales to finance more road construction; (b) build the roads shown in the master plans far earlier than required to cater for travel demands; or (c) build urban ring roads parallel to and a short distance from expressway ring roads, arguing that the traffic functions are different. Transport models and other planning techniques which would correct these tendencies are increasingly being used, but their role in decision making is still limited.

Road investment has also focused on primary roads, rather than being used to strengthen the networks as a whole – including secondary and local access roads. This is in part due to the road networks being seen in terms of engineering design standards that have to be met, rather than in terms of the functions the roads perform. The concept of a functional road hierarchy is not yet fully understood. Multi level interchanges are often sought by leaders when single flyovers or even signal controlled junctions would be more cost effective, and less intrusive on the urban environment.

The mobility benefit enjoyed by the car-owning population is short-lived, and many motorists find themselves sitting in gridlock. Various benefits of greater mobility are certainly enjoyed by the car-owning population (when the roads are not congested), but the benefits are fast eroding because of increasing gridlock and other problems associated with autos. Despite declining benefits, however, auto-dependent lifestyle and culture are taking shape in a few major cities, and could be developed to a point soon that it is politically difficult and costly to reverse. In addition, demand for more road infrastructure capacity for cars is putting significant political and financial pressure on the municipal governments.

At the same time, ***the mobility of the vast majority of the population that does not have access to cars has been systematically deteriorating***. Traffic congestion, pollution, and the high risk of traffic accidents have become part of the daily life for urban population, and are fast reducing the quality of urban life and the efficiency of urban economy.

Nationwide, there are only 9 cars for every 1000 inhabitants, and even at the high end, in Beijing there are no more than 100 cars per 1000 inhabitants. Thus, urban Chinese car ownership rates are small compared to roughly 700 in the United States, 400 in Japan, 350 to 500 in Europe, and 150 to 200 in comparable countries such as Brazil, Mexico, and Korea. Urban car-less households are the losers of past policy and practice that has focused heavily on automobile transport. The problems they experience include:

- Loss of allocation of space for cycling and walking to the car. Many cities have dismantled bicycle rights-of-way, pedestrian sidewalks, and even strips of land for roadside trees to make space for cars.
- Increase in safety hazards from conflicts with automobile traffic.
- Neglect in investment for pedestrian and cycling infrastructure. Much of the investment in urban transport for the past 10 years has been focused on multilevel interchanges and expressways built mostly in advance of demand.

Public transport is fragile. Buses constitute the majority of public transport service in China, and form the backbone of the passenger transport network in even quite large cities (for example Wuhan and Xi'an). Rail-based passenger transport services are limited to a small number of the largest cities (e.g., Beijing, Shanghai, and Guangzhou). The bus network is generally extensive even in cities that have rail systems, but quite often is not well matched with the developing parts of the city and the changing travel and residence patterns. Much of the public transport supply is still provided by SOEs or joint-ventures where the state has majority stake. Internal reforms in the last decade have ensured relatively low staffing levels and in most cities bus companies run on little or no subsidy. However, there has been relatively little modernization of management methods, operational systems, maintenance practices, or use of Intelligent Transport System (ITS). As motorization rates increase, even though a majority of residents do not have access to private vehicles, bus speeds in increasingly congested streets are falling and there is a pressing need for on-street priority.

Though operators have been able to finance bus replacement with loans from local banks, they generally do not have adequate depot facilities for storing buses overnight, funds for maintaining them, or information technology equipment for routine business, maintenance and operations functions. Limited money has been invested in other public transport infrastructure, e.g., interchanges, passenger information systems. Bus priority and bus rapid transport have been tried and sustained in only a few places. *However, State Council Opinion #46 which requires local governments to give more priority to public transport in decision making and allocation of funds offers an opportunity for a paradigm shift.*

This auto-focused planning and investment cycle has other deleterious consequences. ***Concerns related to urban growth consuming excessive land have become particularly acute.*** Many local governments are perceived to use road infrastructure development – particularly the development of ‘ring roads’ and development roads into the urban periphery - as a tool engage excessively in land acquisition and land concessions. Though such practices are ultimately linked to structural distortions in China’s land-tenure system, which make it financially very attractive to convert agricultural land for urban purposes – compensation owed to agricultural users is far lower than market prices, and until recently, it was relatively easy for the municipal government to convert such land – the need for road development has often been the ostensible reason leading this process. Apart from increasingly high profile fears of the impact of such practices on agricultural productivity (the land in the urban periphery is often high quality agricultural land) ***in some instances the road development itself has distorted the planned land use and transport structure: causing urban sprawl and underutilization of urban land.***

The financial implications of this road development process have also started to raise concern.

Not only do local governments fail to build out of congestion, but they also incur enormous financial liabilities from massive transport infrastructure investment. Despite enormous input to road construction, no cities have built out of congestion. Massive investment in urban expressways, ring roads, and metro systems results in traffic improvement only for a few years before traffic growth again becomes overwhelming. Particularly in the medium and small cities, in many cases money is being spent too much in advance of demand on elaborate interchanges and bridges where simpler solutions could be adequate, but is not being spent on road maintenance, traffic management, or public transport. The primary funding sources come from the lease of land-use rights, which are being exhausted, and from quasi-fiscal instruments, which incur enormous contingent liabilities in the forms of local government guarantees and borrowing by government-owned urban infrastructure investment companies.

As the world's second largest petroleum consumer, and as it has switched from a net exporter to a net importer of crude, ***the perceived crisis of long-term energy security is becoming of increasing concern.*** Although petroleum consumption by motor vehicles remains a small share of total consumption, it is growing fast, and, at prices surpassing US\$50 per barrel in recent years, amounts to a potential drain on future GDP growth.

Globally, China's motorization trends produce cause for concern as attention focuses increasingly on mitigating greenhouse gas emissions. The International Energy Agency estimates that current emissions of CO₂ from the Chinese light duty fleet, just under 65 MT in 2005, will increase by 289% by 2020 to nearly 300 MT in 2020, and that 6% of all CO₂ emissions from cars worldwide will come from China by mid-century if current trends continue. In fact, the IEA's Business-as-Usual forecast shows that CO₂ emissions from light duty vehicles in China will grow annually at nearly 360% of the worldwide average between 2000 and 2050.²

While the growth in motorization is expected to continue for the foreseeable future, analysis suggests that government policies can influence the aggregate impact on pollution and GHG emissions. Indeed, ***a vision of urban growth oriented about public transport could address the local, national and global concerns.*** The Chinese national government is becoming increasingly cognizant of these sustainability concerns and the need to change course. The highest levels of Chinese leadership, including the State Council (via Opinion #46 in October 2005) and the Ministry of Construction, have promoted the need for public transport priority in cities in their official documents and public announcements. Significantly, such a vision of public-transport-oriented urban development also addresses GHG-related concerns. A recent analysis by the World Resource Institute forecast a nearly 12-fold increase in CO₂ emissions from cars in China under a Business as Usual scenario between 2003 and 2020, while an alternative scenario based on aggressive promotion of public transport, management and restraint of demand for car travel, and more widespread use of smaller cars and alternative technologies than under the business-as-usual scenario found that CO₂ emissions increased by only 2.5 times over the same time period. Specific estimates such as these are always subject to refinement, but the results are consistent with the literature that suggests that creating enabling environment for sustainable urban transport can result in significant oil and GHG savings.

² Fulton, Lew, and George Eads. International Energy Agency. Sustainable Mobility Project model (2004). Available from International Energy Agency: <http://www.iea.org>.

Diagnosis: An institutional and policy problem

The rapid motorization discussed above, has been accompanied by a process of *fiscal decentralization that has devolved planning and investment of urban transport largely to municipalities*. Reform in the tax administration structure in 1994 clarified that municipal governments are the functional and fiscal domain of urban infrastructure, including urban transport. Thus, the central government plays no role in financing and only a relatively minor role in planning oversight. It approves urban master plans for large municipalities and mega-project investment (including mass rapid transit) proposals. The Ministry for Construction is responsible for the development of high-level public transport policy.

This decentralization is in many ways at the heart of the challenges and successes of the Chinese urban transport evolution in the last 20 years. Specifically:

The central government has no instruments to effectively express its interests in urban transport. While the reforms in the mid-1990s meant that urban transport was recognized primarily as a local issue, the national government was expected to continue providing policy guidance and promoting knowledge exchange and capacity building. However, In general, with national budget no longer available for urban transport, until recently, the national government has generally stayed away from urban transport matters. In the more recent past, though the national government's recognition of its interest (primarily in equity, but also in matters of productivity, oil security and climate concerns) has increased – as indicated by the higher profile and specific initiatives discussed above – there is also a recognition that in the current institutional and policy environment, the national government does not have a lot of instruments at its behest to effectively intervene in the sector.

For the most, municipalities have been left on their own. Mayors have been left with the burden of addressing urban infrastructure problems, with a inadequate revenue base. The decentralization process is not complete, and the development of sustainable municipal tax revenue base will take longer. A sustainable municipal finance framework is needed, but has yet to be developed. *The absence of adequate financing mechanisms has been partially responsible for the tendency towards fiscally and socially suspect solutions* – such as the excessive land conversions described above. The problem has been compounded by *a capacity gap at the local level and a dearth of adequate technical and process guidance to support local professionals and decision-makers* address the complex multi-dimensional nature of urban transport problems they are facing.

Additionally, during a time of unprecedented urbanization and change, the *mayors of China's municipalities have acted in response to their incentives*. These incentives have created incredible progress in many sectors, including some substantial urban road systems, but are not structured to easily provide sustainable urban transport solutions. Specifically, mayors' performance are largely evaluated based on annual metropolitan *GDP growth* and signs of *visible progress*. Big flashy infrastructure such as urban expressways, contribute significantly to both, particularly when the road development can be accompanied by rural land conversion (the act of land conversion itself boosts the value of the land and has a direct impact on regional GDP).

Finally, *there is a lack of successful sustainable mobility models for cities to emulate.* Sustainable mobility solutions, properly implemented, could potentially also raise a Mayor's profile. This is particularly true in the current policy environment where the central government is strongly calling for 'people-centered' development that results in a more equitable 'harmonious society.' Indeed, as described already, 'priority to public transport' has been specifically defined as a national priority. However, there are just not enough successfully implemented mobility solutions that are perceived (or marketed) as models to emulate. China's cities and Mayor's have a rich and successful tradition of replication and there is a strong need to create high-profile demonstrations of successful urban transport solutions that can be emulated.

The Way Out: A strategic framework for action

A recent World Bank assessment of China's urban transport sector has proposed a set of near-term strategic priorities to these institutional challenges.

First, there is a need to *redefine the role of the national government in urban transport* such that the national interest can be expressed more effectively. Urban transport is not only a local issue, but also a national issue. Urban transport problems and their spillover effects are much more complicated now than before. In light of the equity and efficiency considerations, and the energy and environmental problems (including loss of agricultural land) associated with rapid urban motorization, the central government has a role to play in urban transport. The national government needs to strengthen its role in urban transport, provide policy direction, and reward best practices.

In particular, there is a need to consider a financial role for the national government. The development of *appropriately designed financial mechanisms for national government participation in urban transport investments* has the potential to be the critical bridge aligning national interests with local priorities. In an appropriately structured planning and financing framework, national government can effectively ensure the implementation of a broad-based inclusive local planning process that incorporates national interests in social environmental and economic/financial sustainability even while leaving city-specific policy and project formulation to the local level. Two examples of effective national interventions in the urban transport sector in countries similar to China in the scale, heterogeneity and complexity of their urban transport program provide examples to learn from:

- The US\$8 billion annual Federal Transit Program managed by the US Department of Transportation provides grants to cities using a planning process that ensures consistency with national transport goals.
- The Government of India is in the midst of a US\$12 billion eight year program called the Nehru Urban Renewal Mission, through which the central government provides cities who implement a urban reform program (legal, financial management, institutional) grant financing for urban infrastructure projects.

Targeted *national government financing* that was accompanied local actions that reinforced stated national priorities – such as a priority for public transport, or a more consultative public process -- *would provide local leaders direct incentives to align their actions with national*

interests. Further, such financing would at least partially *address local financing needs* while an adequate municipal financial structure is developed.

Second, there is a need to need to address the complex interaction between urban transport and a range of other complex social, economic and structural issues. There are many issues, such as financial structures, land policy, industrial policy (particular automobile policy) that fundamentally affect urban transport outcomes. But decision-makers making transport decisions have little control over these complex set of issues. The considerations that will drive China's policies on such matters will always be too multi-faceted for any one concern, such as urban transport, to drive the debate, *there is a need to clearly identify and articulate the urban transport interest on these related matters of national concern* for consideration by the appropriate policy-makers.

Third, there is an *urgent need to address the capacity gap*. The high-level policy statements issued by the Ministry of Construction and other national agencies need to be supplemented with more detailed guidance. Working professionals, local officials and decision-makers would benefit from more detailed guidance both on matters of process (formulating and implementing transport plans and policies, planning investments) and in terms of particular solutions (such as public transport operations and regulation). Additionally, capacity building efforts, in the form of training, awareness-raising and formal education, targeting working professions, decision-makers, the public and students, need to be developed and implemented.

Finally, *there is a need to implement some successful demonstrations*, a series of models that cities can emulate. These demonstrations need to be properly monitored and documented, and a systematic effort is needed to ensure that their results are properly disseminated.

The design of CUTPP closely reflects this analysis. The national component has been designed to formulate a strategy that will bridge the incentive gap, and propose financial mechanisms for national government participation in urban transport. The proposed national strategy will also clearly lay out a series of recommendations related to larger policy issues (such as land, automobile policy, and municipal finance) that would lead to preferred urban transport outcomes. The national component also finances the development and dissemination of a variety of technical guidelines, manuals and regulations to address the capacity gap. Issues of awareness raising, training and long-term capacity building are explicitly addressed by the dissemination and monitoring sub-components of the national component. Finally, the demonstration cities component catalyzes a set of demonstrations that will provide models for sustainable transport solutions.

The Demonstration Cities

Urban conditions

The range of urban transport challenges confronting the cities in the proposed project reflect the issues outlined above. All cities present interesting challenges: some like Xian, Urumqi, and Xianyang are tackling issues already fully manifested, while others like Jinan, Changzhi, and Zhengzhou work on tailoring their urbanization plans to prevent the manifestation and exacerbation of urban transport issues in the near future.

Between 1995 and 2005, Chinese cities grew at an annual average rate of over 10 percent. At the midpoint of that range, United Nations statistics indicate that roughly 589 million people lived in the 657 cities with a population of 100,000 or more, and 35% of the country's entire population lived in cities with 500,000 to 7.5 million inhabitants. The 14 cities selected for inclusion in the GEF proposal fit squarely within this range, which represents small, medium, and large cities. While China's ongoing rapid urbanization is likely to touch upon all Chinese cities, it is believed that the transport systems of cities in this mid-size range are the most vulnerable, since performance deterioration and surging motorization challenges are most rapid. Prospective future growth in CO₂ emissions is largest in cities within this range and thus these are the cities with most potential to head off future emissions. Figures A1.1 and A1.2 show the selected cities' motorization rates and extent of bus service, respectively, against gross regional product (GRP). Figure A1.3 shows the Bank's estimation of transport CO₂ emissions for 2006, based on data provided by the cities. Figure A1.4 shows per capita emissions.

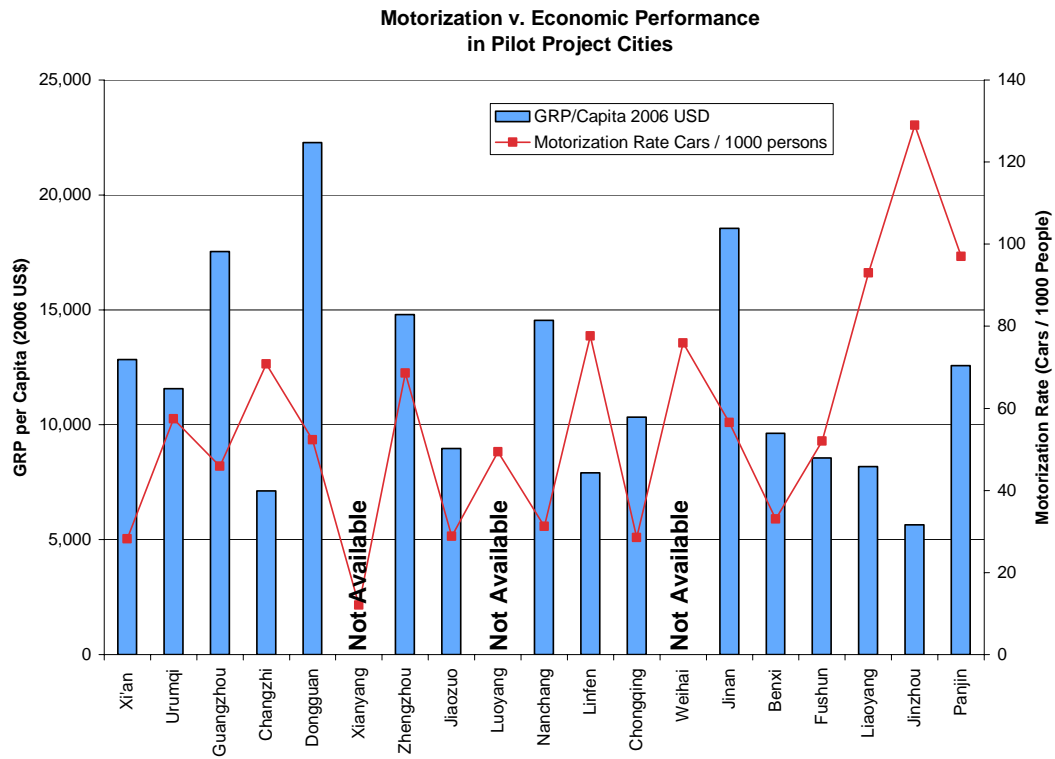


Figure A1.1

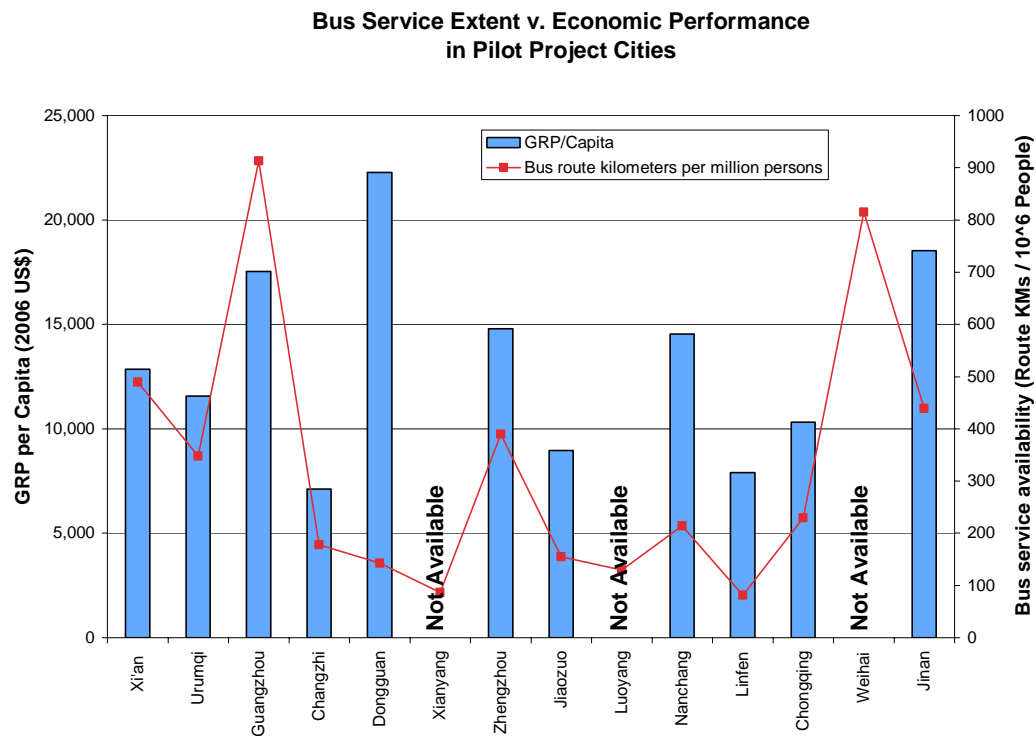


Figure A1.2

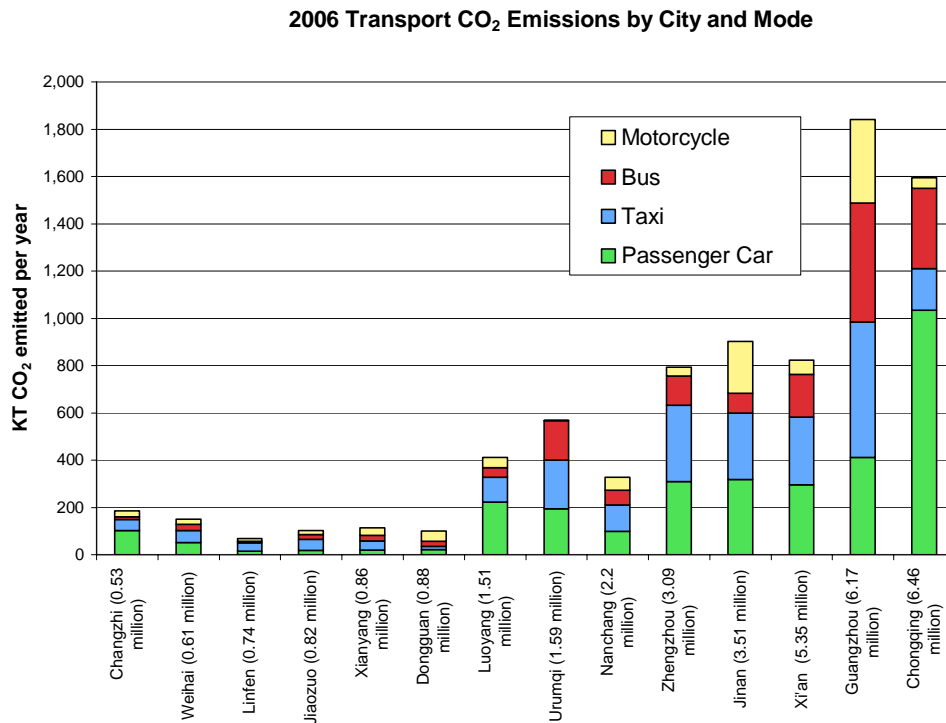


Figure A1.3

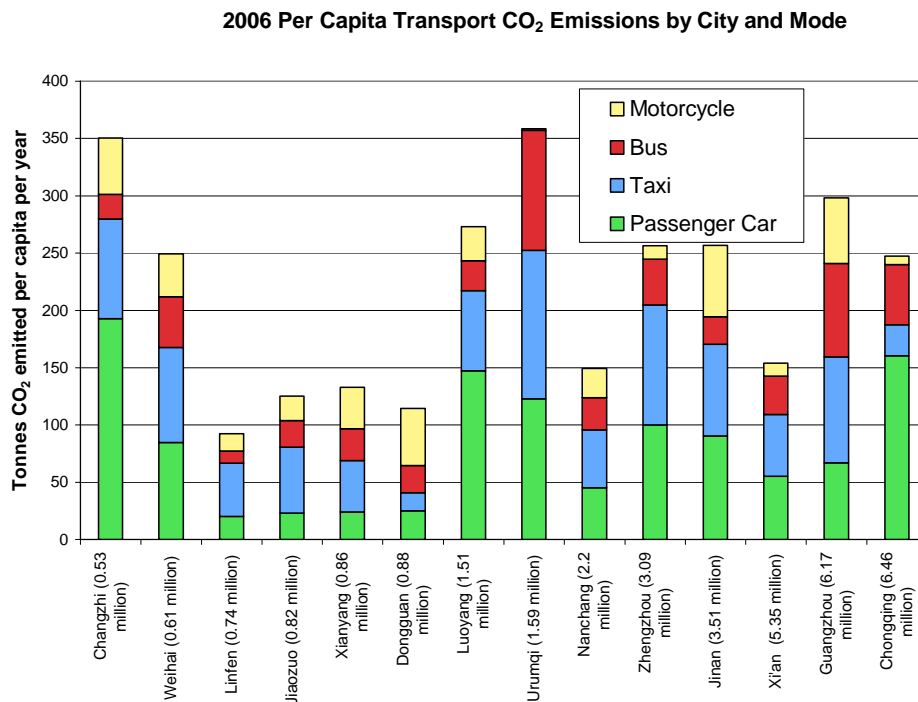


Figure A1.4

The collection of cities included in component two of the project is representative of "typical" Chinese cities in four important ways. First, it includes cities from all geographic regions in China. (The selection process was set up in order to ensure such an outcome; see Annex 19 for more details.) Thus, Urumqi is the largest economic hub in westernmost China, Xinjiang province, while Guangzhou is a leading economic center of the Pearl River Delta in the south. Chongqing and Xian are fast-developing cities leading China's commitment to moving economic development westward, and are followed by smaller cities as Xianyang, Changzhi, Linfen, Luoyang, and Zhengzhou. Weihai is a typical small city in China's eastern coast, and Nanchang an important capital in the southern agricultural province of Jiangxi. Because of their location, all of the chosen cities are influential as either provincial capitals or regional economic and industrial hubs, and so set important examples for other cities in their region. .

Second, the sample is representative of the types of cities found throughout China. For example, Guangzhou – the country's third largest metropolitan area – Xian, Chongqing, and Urumqi are well-established large cities with strong industrial bases and historic rail transport spokes. Xianyang and Dongguan are 20th century industrial satellite cities located near traditional urban centers that have grown rapidly in recent years to become industrial power centers in their own rights, largely by converting farmland to urban uses and agglomerating smaller jurisdiction. A number of cities are medium-sized industrial cities facing increasing pressure of rapid growth on Greenfield sites (Jinan, Nanchang, Zhengzhou, and Linfen). Finally, a number of the cities, such as Weihai, Jiaozuo, and Luoyang are small cities in traditionally rural sub-regions, facing substantial growth pressures from rapid industrialization likely to impact the transportation network.

Third, the selected cities closely mirror the Chinese experience in terms of their planning style and topographic characteristics. Dongguan, for example, is a typical city in the Pearl River Delta, with exponential growth in area but very limited land left for future expansion, and a low density development that limits the maximization of urban space. Several Chinese cities are typically restricted by surrounding mountains and struggle to increase their urban density and strengthen linkages to the city's core – the case of Urumqi and Xian. Also limited for growth is Chongqing, a city like many in China, separated and constrained by hills and tributaries of the Yangtze River, along the banks of which it sits. In a similar way, Jinan, Linfen, Jiaozuo, and Luoyang are all surrounded and intersected by rivers and streams, where the context of integration of the city's parts becomes critical. Meanwhile, in accordance with China's current urbanization strategy to create new-towns-in-town, cities like Changzhi and Nanchang are urbanizing new areas and redeveloping old ones under schemes meant to promote public transport and non-motorized transport. Still others like Luoyang and Xian struggle to preserve their cultural identity and heritage property while growing and modernizing.

Fourth, the chosen cities are a representative sample of the range of contemporary urban transport problems and challenges in China. A number report difficulty with the inability to curtail the rapid growth of motorized vehicles. Urumqi, Guangzhou, and Jinan experiment with new parking regulations and economic incentives to curtail the use of vehicles, while the small cities of Zhengzhou, Luoyang, and Jiaozuo struggle to update infrastructure to keep up with the rapid motorization growth while providing amenities for non motorized transport, the highest

mode share. Other cities have difficulty ensuring the viability of public transport with operating conditions that are not financially sustainable. Chongqing and Guangzhou have problems integrating their public transport modes while Changzhi and Xianyang struggle to establish proper operation management strategies for buses and taxis respectively. Jinan, Weihai, Luoyang, and Zhengzhou all strive to introduce private sector participation in the bus operations.

Many cities report frustration that their public transport networks are ineffective -- that they cannot attract ridership in substantial numbers, even if they have made investments in public transport and have improved operating characteristics. Nanchang's bus coverage is weak and access in the residential areas around the city center is low, while Linfen's percentages of public transport share and bus average speeds have decreased significantly over the past five years. Both Dongguan and Changzhi's public transit systems have problems meeting the increasing demands due to their rapid population increases, and lack appropriate bus stops, interchange terminals, and depots.

Larger metropolises that have expanded into neighboring cities now strive to provide adequate public transport infrastructure linking the neighboring city with the city center. Such is the case of Xian and Xianyang, two adjacent cities fighting common transportation hindrances and seeking ways to better integrate their core urban areas. Xian and Xianyang are but one example of many cases in China dealing with regional integration issues, thus providing a great opportunity for a pilot program on this topic. Further, all the cities included have an awareness that their transport systems are contributing to air quality problems, and that so far, the solutions developed are not adequate.

Besides being exemplary of the typical Chinese city with contemporary urban Chinese challenges, the cities selected for Component 2 all show potential promise for reforms. First, the city fathers show keen understanding of and interest in correcting past mistakes by pioneering new methods and approaches, especially in terms of establishing for their cities a vision that gives priority to public transportation. Second, this particular set of cities shows a strong commitment to implement projects that will have tangible outputs and measurable results. The cities using GEF money to fund feasibility studies are committed to implement new BRT corridors or bus priority lines in accordance to study results, and those cities focusing on operation management improvements and policymaking will device appropriate result monitoring of service improvement. Lastly, because of their geographic locations, characteristics, and propensity to exert influence, all these cities play a pivotal role in leading the future of China's sustainable urban development.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies
PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Current Bank lending and grant funding operations in related sectors (urban transport, urban environment, or urban development) in China are summarized in the table below.

Table A2.1 Current Bank Urban Transport Lending in China

Sector issue	Ongoing projects	Latest supervision (PSR) ratings	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Addressing urban transport needs in a comprehensive manner: <ul style="list-style-type: none">Selective road investments to enhance capacity and relieve bottlenecks.Public transport investments and support to policy, operations, and planning.Traffic management safety.Development of a motor vehicle emission control strategy.Road maintenance.Training and capacity building.	Shanghai Metropolitan Transport Project I (completed)	S	S
	Shanghai Metropolitan Transport Project II (completed)	S	S
	Liaoning Urban Transport Project (completed)	S	S
	Guangzhou City Center Transport Project (on-going)	S	S
	Urumqi Urban Transport Project (on-going)	S	S
	Shijiazhuang Urban Transport Project (on-going)	S	S
	Wuhan Urban Transport Project (on-going)	S	S
	Fuzhou Peri-urban Development Project (on-going)	S	S
	Urban Environment Infrastructure in Liaoning		
	Liaoning Urban Infrastructure Project	S	S
	Liaoning Environment Project	S	S
	Liao River Basin Project	HS	HS
GEF Projects			
	Energy Conservation I (on-going)	S	S
	Renewable Energy Development (on-going)	S	S
	Sustainable Forestry Development (Natural Forest Protection) (on-going)	S	S
	Second Beijing Environment (on-going)	S	S
	Energy Conservation, Phase II (on-going)	S	S

	Renewable Energy Scale-up Program (CRESP) (on-going)	S	S
	Heat Reform and Building Energy Efficiency (on-going)	S	S
	Hai Basin Integrated Water and Environment Management (on-going)	S	S
	GEF-Gansu and Xinjiang Pastoral Development (on-going)	MS	MS
	GEF-Termite Control (on-going)		
	GEF-PCB Management and Disposal Demonstration (on-going)	S	S
	GEF-Guangdong PRD Urban Environment (on-going)	S	S
	Guangxi Integrated Forestry Development and Conservation (on-going)		
	GEF-World Bank Urban Transport Partnership Program (on-going)		
	GEF-Ningbo Water and Environment (on-going)		
	Liaoning Medium Cities (on-going)		
	GEF-Shanghai APL 2 (on-going)		
	GEF-Second Shandong Urban Environment		
	Thermal Power Efficiency (on-going)		
	Energy Efficiency Financing (on-going)		
Clean Development Mechanism			
Projects with Signed Emission Reduction Purchase Agreements (ERPAs)	Gansu Xiaogushan Run-of-river Hydro		
	Shanxi Jincheng Coal Mine Methane		
	Guanxi Forestry		
	Jiangsu Meilan HFC-23		
	Jiangsu Changshu 3F HFC-23		
	Nanjing Iron & Steel		
	Hubei Guangrun Hydropower		

	Inner Mongolia Huitengxile Wind Farm
Projects under development	Shanxi Qingshui Coal Mine Methane
	Shanghai Sludge
	Shanghai Laogang Landfill
	Several Iron & Steel E/E (Meishan, Luojing COREX, Bao Tou)
	Shandong Poultry Biogas (methane for energy)
	Tianjin LFG

PSR: Project Supervision Report.

S: Satisfactory.

In addition to the above projects, a number of other activities from other development agencies are noteworthy:

Other development agencies

Japan Bank for International Cooperation

(formerly Overseas Economic Cooperation Fund of Japan)

- Shenyang Air Pollution Control Project, Phase I (under implementation)
- Water Source Program in Yingkou (under implementation)
- Environment Improvement Program in Shenyang, Phase II (under implementation)
- Integrated Environment Improvement Program in Anshan (under implementation)

Asian Development Bank

- Shenyang – Benxi Expressway (completed)
 - Yingkou Port (completed)
 - Dandong Port (completed)
 - Dalian Water Intake Project (completed)
 - Liaoning Environmental Gas and Heating Project (under implementation)
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Annex 3: Results Framework and Monitoring

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Results framework

Results Framework		
China/GEF/World Bank Urban Transport Partnership Program		
Project Development Objective	Outcome Indicators	Use of Outcome Information
<p>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.</p> <p>Global Environment Objective Slow the forecast growth of urban transport GHG emissions in China's cities.</p>	<p>At least 25 cities with a population over 500,000 that did not participate in the project's environmentally sustainable urban transport component demonstrate substantive interest in implementing their own urban transport investment development plans that more actively promote public and non-motorized transport, and at least 10 of these demonstrate progress in doing so, during the project period.</p> <p>GEO outcome indicator Forecast transport CO₂ emissions in the demonstration cities that implement more sustainable transport plans developed under the project are lower than their "business-as-usual" forecasts.</p>	<p>Gauge the extent to which the central government priorities have been effectively translated into impacts on the ground, and the effectiveness with which the GEF-supported project has served as a bridge between those two loci of activity.</p> <p>Serve as a benchmark against which the actual CO₂ and environmental performance of the implemented estimates can be gauged.</p>
Intermediate Results per Component	Results Indicators for Each Component	Use of Intermediate Results Monitoring
Urban transport policy-makers in central government effectively promote (with policies, guidelines, other technical and financial assistance) investments and strategies promoting public transport and non-motorized transport.	A national sustainable urban transport framework and associated technical guidelines are issued and used in 30 cities – including the demonstration cities.	Ensure effectiveness of technical guidelines and any financial mechanisms created as a result of activities of national component.

	<p>A national sustainable urban transport training curriculum is prepared, tested and delivered.</p> <p>A national sustainable urban transport knowledge system is established.</p>	<p>Ensure that basic information for establishment of baselines and benchmarks is available for future projects.</p>
<p>At least 10 demonstration cities implement investments, and transport policies that promote public and non-motorized transport.</p>	<p>At least 8 cities implement transport development programs that include: 1) BRT development; and 2) integration of public and non-motorized transport facilities.</p> <p>At least 1 city introduces automobile demand management.</p> <p>At least 1 city implements a transit-oriented land use development plan.</p>	<p>Gauge the effectiveness of the public transport-oriented activities in Component 2 in ensuring follow-on actions.</p> <p>Gauge the effectiveness of the demand management activities in Component 2 in ensuring follow-on actions.</p> <p>Gauge the effectiveness of the transit-oriented development activities in Component 2 in ensuring follow-on actions.</p>

Arrangements for results monitoring

Project Outcome Indicators	Baseline	Target Values			Data Collection and Reporting		
		Project			Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
		YR1	YR2	YR3			
(1-1) At least 25 cities that did not participate in the demonstration program show demonstrable interest in implementing urban transport investments and plans that promote public and non-motorized transport, and at least 10 of these demonstrate measurable progress toward doing so.	Not yet available, but probably zero	None	None	At least 25 cities with 500,000 inhabitants or more approach the sustainable and public transport institutes being established around the knowledge collection efforts of this project for information and guidance; at least 10 cities demonstrate evidence of taking steps to develop such plans (e.g. budgetary expenditures, studies commissioned, policies under revision).	Verify baseline within 6 months of project initiation. Update at year 3	Written and/or telephone surveys of municipalities	PMO
(1-2) Forecast transport CO ₂ equivalent emissions over 10 years in the cities participating in the demonstration projects of Component 2 are at least 1 megaton lower than their “business-as-usual” forecasts.	Not yet available	Methodology and indicators for baseline and scenario forecasts developed	Business-as-usual forecast over 10 years available	With-pilot-intervention-forecast over 10 years available; at least 1 MT CO ₂ equivalent lower than BAU forecast.	Establish baseline forecast within 12 months; pilot intervention scenario in Year 3	Raw information provided by project pilot cities to PMO based on pertinent research and statistical reports.	Pilot project cities provide raw information based on research, statistical reports, and standard traffic data collection methods, as appropriate; indicators developed and derived by PMO

(1-3) Forecast daily passenger trips made by public transport, walking, or cycling, over 10 years in the cities participating in the demonstration projects of Component 2 are at least 5% larger than their “business-as-usual” forecasts.	Not yet available	Methodology and indicators for baseline and scenario forecasts developed	Business-as-usual forecast over 10 years available	With-pilot-intervention-forecast over 10 years available; with-pilot-intervention forecasts of passenger trips by public transport, walking, and cycling are at least 5% greater than in the BAU forecast.	Establish baseline forecast within 12 months; pilot intervention scenario in Year 3	Raw information provided by project pilot cities to PMO based on pertinent research and statistical reports	Pilot project cities provide raw information based on research, statistical reports, and standard traffic data collection methods, as appropriate; indicators developed and derived by PMO
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Intermediate Outcome Indicators	Baseline	YR1	YR2	YR3	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
(1A) A national sustainable urban transport framework and associated technical guidelines are issued.	Non-existent	National framework drafted	National framework adopted		Annual progress reports	Status of programmed task	PMO
(1B) A national sustainable urban transport training curriculum is prepared, tested and delivered.	Non-existent	Training courses developed	At least 1 set of municipal planning guidelines adopted	At least 3 training courses offered with participation of at least 20 different cities each	Annual progress reports	Website statistics; telephone surveys	PMO
(1C) A national sustainable urban transport knowledge system is established.	Non-existent	Training courses developed	At least 1 training course offered with participation of at least 20 different cities	Pilot exercise evaluated; legal framework for establishing reporting requirements created	Annual progress reports	Status of programmed task	PMO
(1D) At least 30 cities use the updated technical guidelines, manuals and standards in designing 12 th 5 year plan masterplan updates, other plans and transport projects	Non-existent			Interviews and assessments carried out by PMO, and Bank team to evaluate if guidelines, manuals and standards have been reflected in city plans	Annual progress reports	Status of programmed task	PMO, Bank and partners (Energy Foundation, CAI-Asia and SUMA partners).

(2A) At least 8 cities implement transport development programs that include: 1) BRT development; and/or 2) integration of public and non-motorized transport facilities.	3 cities -- with WB projects -- have already committed	5 additional cities start implementing investments by year 3			Annual progress reports	Monitoring of status of pilot cities	PMO
(2B) At least 1 city introduces automobile demand management.	Non-existent		At least 1 city commits to transportation demand management measures to be pursued and hold public consultations	1 city starts implementing at least 1 transportation demand management measure by year 3	Annual progress reports	Monitoring of status of pilot cities	PMO
(2C) At least 1 city commit to introducing transit-oriented land use development.	Non-existent		At least 1 city adopts recommendations of transport/land-use coordination measures	1 city starts implementing a plan to improve coordination of transport and land-use by year 3	Annual progress reports	Monitoring of status of pilot cities	PMO

Annex 4: Detailed Project Description

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Component 1: Strategy Development and Capacity Building at the National Level (Total financing: USD32.00 million; GEF co-financing: USD7.00 million)

Component 1 will support the development of financial mechanisms, capacity building initiatives, and dissemination mechanisms to effectively bridge the gap between the national government's interests in sustainable urban transport and the local decision-making environment at the municipal government level. The activities in this component will help address the key institutional barriers to effective implementation of sustainable urban transport measures by supporting (i) the identification and adoption of financial and other mechanisms for the national government to influence urban transport investment decisions at the local level, providing incentives to favor sustainable transport solutions; (ii) the development of institutional knowledge products, such as databases, manuals, planning guidelines and regulations to help local governments effectively implement sustainable transport solutions; (iii) dissemination activities that increase the awareness of sustainable urban transport among local decision-makers, the public and concerned professionals; and (iv) monitoring and evaluation activities that will underlie a larger replication effort.

Task 1A. National Urban Transport Strategy. (Total financing: USD 1.5 million; GEF co-financing: USD 1.00 million)

1. Objectives: Create a nationally-accepted strategic framework for promoting sustainable urban transport and land use policies and investments, and effectively consult on, disseminate, and implement that framework. The strategy will focus primarily on:

- *Bridging the incentive gap* between municipal governments and national priorities by developing financing mechanisms (such as matching grants, a demonstration program or a financially supported national policy) that could be executed at the national level, to support local government investments aligned with national priorities in sustainable transport.
- *Bridging the capacity gap* at the local level by developing regulations, guidelines and manuals that will help local planners follow inclusive (participatory) integrated planning (incorporating land-use, distributional, environmental concerns) processes and produce sustainable transport solutions (such as BRT systems, transit-oriented design, bicycle networks) effectively.
- *Bridging the policy gap* between national policies on autos, land, oil and related issues that fundamentally impact urban transport. The strategy will identify clearly the linkages between such policies and their impact on urban transport and make recommendations on how to best reconcile the Government's priorities in those sectors with their interests in urban transport.

2. Activities:

- Organize guided dialogues (high-level conferences and workshops) among national and local policy makers and stakeholders to solicit inputs and provide updates on the emerging comprehensive strategic framework.

- Develop a comprehensive national strategic framework for urban transport that includes
 - Reform of organizational structures
 - Action plan to promote the development and use of public transport
 - Action plan to promote better integration of land-use and transport planning
 - Appropriate vehicle and fuel strategies for urban areas
 - Identification of appropriate financial mechanisms, implementation, compliance, and administrative mechanisms
- Identify and prepare key legislative changes that may be necessary to harmonize current institutions with the identified urban transport framework

3. Outputs:

- National urban strategy, submitted for approval and adoption by the Steering Committee.
- Proposed amendments to legislation and/or regulations needed in order to implement comprehensive framework, submitted for approval and adoption by Project Steering Committee.

Task 1B. Training and Capacity Building Efforts at the National Level (Total financing: USD 24.9 million. GEF co-financing: USD 3 million)

1. Objectives: Facilitate national government training and strengthening of local capabilities and institutions to plan, operate, manage, maintain, and evaluate the performance and effectiveness of sustainable transport measures. It seeks to build capacity in the national government's ability to both generate and impart knowledge on sustainable urban transport practice in China.

2. Activities:

- Develop a set of appropriate manuals, guidelines and standards for cities in China to foster planning for sustainable urban transport. Specific planning guidelines for municipalities to be developed or amended include: Urban Transport Planning Evaluation Procedures and Appraisal Regulations; Code for Planning and Design of Urban Public Transport modes; Code for Management, planning, and design of Urban Parking Facilities; Code for Planning and Design of Urban Passenger Interchanges and Plaza Areas; Code for Planning and Design of Bicycle Systems; Code for Planning and Design of Walking Systems; Code for Planning and Design of Urban Road Intersections; Technical Standards for Traffic Impact Assessment of Urban Infrastructure Projects; Technical Guidelines for Urban Transport Planning; Technical Guidelines for Urban Public Transport Planning and Operations; Qualification Verification and Supervisory Regulations for Registered Transport Engineers; Code for Planning and Design of Urban Road Traffic (to be amended into Code for Planning and Design of Urban Transport); and Code for Urban Road Design (to be amended). Outline terms of reference available on file.
- Develop detailed guides to support the development of urban transport planning processes in the Chinese planning context. Guidelines that will be developed (drawing when possible on available international guidelines) include: (i) Development of an urban transport plan and its components; (ii) Legalized evaluation and approval procedures of urban transport planning; (iii) Public transport alternatives analysis (criteria for selection from alternative technologies for choices between metros, BRT etc. in terms of costs, investments and benefits); (iv) Public

transport operation, organization, and institutional reform (introduction of market oriented reforms and private sector participation in provision of services); (v) Providing priority to public transport in the urban development process, in urban traffic management, and in investment planning; (vii) Evaluation of transport investments (alternatives analysis, social, economic, financial and environmental impacts). Incorporation of public transport and energy considerations; (viii) Development of systems and mechanisms for effective integration of land-use planning with transport and related infrastructure planning to produce sustainable outcomes; (ix) Integrating environmental protection considerations into urban transport planning by measures such as vehicle emission control, improving urban public transport, and identifying an appropriate role for non-motorized transport; and (x) Integration of energy consumption and GHG emissions into the formulation, testing, and evaluation of transport plans. Outline terms of reference available on file.

- Develop and implement a multi-year program of sustainable urban transport technical training, including, where appropriate, web-based training tools, as well as courses, workshops, charettes, and on-site learning opportunities. As part of this effort, a series of technical symposia and workshops are planned. The workshops will target decision-makers, working professionals and local officials. Some of the workshops will focus on training trainers. In all cases the proceedings from the workshops will be summarized and turned into resource guides appropriate for universities and working professionals. International experience suggests that such activities can serve a critical role in keeping working professionals and decision-makers informed, trained and up-to-date on the range of preferred solutions. As far as possible, the workshops will take advantage of existing professional conferences (GEF will NOT finance these baseline efforts). GEF financing will be used for incremental financing relating to getting appropriate speakers to the events, incremental charges (such as translation) and for publishing proceedings. At present, four key themes are planned: Comprehensive Transport Management Decision-making Mechanisms; Alternative transport technologies and making decisions; Regional Transport Planning; and models of transport and urban sustainable development.
- Develop more in-depth university courses on environmentally sustainable urban transport for adoption by Chinese graduate programs in urban planning or transport. University-oriented course improvement and training, aimed at laying the foundation for developing a new generation of capable and well-equipped human resources, will also begin the multi-year program with graduate courses within the cooperating universities, followed by the first distance learning course. Work will be conducted jointly with major domestic universities (such as Tongji University, Southeast University, and Qinghua University) that have transport related programs to develop systematic courses for improving graduate school education in the field of environmentally sustainable urban transport. The focus of this work will be on transport economics, urban transport planning, public participation in urban planning, integration of transport and land use as well as transport policy. A visiting scholar program will be executed by inviting a team of professors, one from each of the three overseas universities (such as University of California, Berkeley in the USA, Leeds University in the UK, and Kyoto University in Japan) with well-recognized transport planning or policy programs. They will be invited to the three Chinese universities to spend one semester in assessing academic programs as well as lecturing.
- Develop and initiate an appropriate and sound knowledge base that tracks appropriate information for characterizing and measuring sustainable urban transport, as well as identify

institutional and finance mechanisms to ensure ongoing and timely replenishment of knowledge.

3. Outputs

- Sustainable urban transport planning standards, guidelines and manuals for municipal planners adopted and published in hard copy or on the web
- The knowledge created in these standards, guidelines and manuals incorporated in all Project designs and 12th 5 year plan masterplan updates in (i) the demonstration cities, (ii) the other cities participating in urban transport projects with the World Bank (Fuzhou, Shijazhuang, Taiyuan) and cities working with other project partners on urban transport.
- Appropriate set of training tools and activities developed and performed, as well as mechanisms identified to allow ongoing development of future products, and attendance/participation in this program beyond the life of the GEF project
- University courses developed and made available to graduate programs
- Knowledge base developed, and information gathered for at least three years from cities participating in the proposed program
- Knowledge base update plan developed, and resources to enact it identified.

Task 1C. Dissemination and Awareness-Raising Activities (Total financing: USD 4.04 million; GEF co-financing: USD 2.00 million)

1. Objective: This task has two principal objectives. First, it aims to disseminate the particular knowledge and experience gained in the project for the purpose of facilitating replication and ongoing adoption of sustainable urban transport practices. Second, it aims to raise awareness of environmental, social, and economic sustainability in urban transport among governmental decision makers, technical and professional staff, and the general public.

2. Activities:

- Establish a web-based, sustainable urban transport information dissemination platform with interfaces appropriate to different target audiences, such as technical and professional staff, teachers and students, researchers, and the general public, as well as a mechanism to track both usage of the site and effectiveness of the site with different user groups.
- Develop and implement sustainable urban transport public awareness “brands” and campaigns, targeting particularly influential market segments (e.g. local officials, housing developers, teachers and students, employers, etc.), as well as the general public. Evaluate the immediate effectiveness of the marketing campaign, and develop recommendations for refinements / future steps.

3. Outputs:

- Web-based platform for information dissemination, combined with report on first two years’ use and effectiveness of the platform.
- One or more marketing campaigns, delivered, and evaluated.

Task 1D. Monitoring and Evaluation (Total financing: USD 1.56 million. GEF co-financing: USD 1.00 million.)

1. Objective: Monitoring the effectiveness of the pilot projects to ensure that the expected project outputs actually achieve their expected results, and to ensure that these results contribute to meeting the global environmental objective, is crucial. The objective of this task – and the reason that it is included under the National component – is to ensure that results monitoring occur in a comparable framework across all the cities in the pilot project, as well as to maximize the exposure of local staff to the appropriate evaluation framework.

2. Activities:

- Develop appropriate set of results or performance indicators for each type of Pilot project activity (e.g BRT, public transport integration, TOD, demand management, etc.), as well as methodologies for their derivation
- Develop guidelines to standardize data gathering, manipulation, and reporting processes for deriving indicators
- Provide guidance to staff in local implementation units on programming the collection of information sufficient to construct performance indicators, including on developing baseline indicators before the project starts
- Track and monitor pilot project output and resource use
- Evaluate project outcomes after project is completed, by comparison of ongoing monitoring results with baseline
- Conduct workshops and conferences as appropriate

The proposed level of funding for Component 1 in total is USD 7.00 million, allocated among the following tasks:

- Task 1A:	USD 1,000,000
- Task 1B:	USD 3,000,000
- Task 1C:	USD 2,000,000
- Task 1D:	USD 1,000,000

Component 2: Pilot Demonstration Projects in 14 Cities and 1 Province (Total financing: USD572.75 million; GEF co-financing: USD13.00 million)

Component 2 catalyzes a series of high profile demonstration projects that will create models of sustainable transport solutions for other Chinese cities to replicate. Demonstration projects in 14 cities and 1 province have been selected through an extensive competitive process initiated and driven by the national government. (Details of the selection process are shown in Annex 19). The GEF component of the financing would cover technical assistance related to the pilot projects, while co-finance from the cities and, in some cases, World Bank projects, would cover civil works. Details of the city demonstration pilots are discussed by city.

Liaoning Province (Total Project US\$142 million, WB US \$76.5 million, GEF proposed US\$0.75 million)

On-going Liaoning Medium Cities Infrastructure World Bank Project

Liaoning is the only local pilot demonstration project that would provide GEF financing under this component to Provincial, rather than Municipal, government. The Liaoning Medium Cities Infrastructure Project (Ln 4831-CN) was approved by the World Bank Board in June 2006 and is currently under implementation. The project covers the medium-size cities of Panjin, Jinzhou, Fushun, Benxi and Liaoyang, as well as the county level city of Dengta in Liaoyang municipality. It is a comprehensive urban transport project, with each city targeting complementary investments in the road network (a road infrastructure and reconstruction component, and a secondary road rehabilitation and road maintenance component), in traffic safety and traffic management, and in public transport to achieve the main objectives of accessibility, safety, and connectivity. The relevant components of that project are:

- The **Secondary Road Rehabilitation Component (RM)** [US\$103.0 million, WB \$US48 million] will finance rehabilitation of major segments of the participating cities' road network to improve last-mile access to pedestrians and bicyclists, and finance road maintenance equipment. The rehabilitation works cover 280.5 km, of which 61% are branch roads, streets in neighborhoods and alleys, and 29% are secondary roads. The works can be characterized as routine corrective maintenance without changing the road cross-section. Most of the roads provide access primarily for cyclists and pedestrians and the works aim to bring back road conditions to original maintainable levels.
- The **Traffic Safety and Traffic Management Component (TS)** [US\$22.18 million, WB US\$18.6 million] supports the implementation of the NRSL through support for enhanced traffic management, monitoring and traffic control systems (including traffic signals and intersection improvements) to improve safety and traffic flow. The ID component also supports this component with TA to: (a) support the cities to develop and implement a traffic safety audit program on selected corridors and intersections based on an annual monitoring program; and (b) support training and regional study tours to understand domestic and international experience and best practices on traffic control, enforcement and parking. The component is designed with six objectives: (a) investment in technology to modernize traffic control systems; (b) investment in protecting the vulnerable road users by rationalizing the allocation of road space for all modes; (c) effective monitoring of the traffic volumes (MVs and NMVs) and speed on selected arterial corridors and monitoring of traffic volumes (MVs, and NMVs and pedestrians) and time delay for MVs at selected major intersections; (d) mobilizing the Road Safety Committees established in each city to undertake appropriate traffic management actions arising from the results-oriented monitoring of traffic safety; (e) effective enforcement of the National Road Safety Law to enhance traffic safety; and (f) effective enforcement of laws and regulations regarding on-street and off-street parking, particularly MV parking on sidewalks, and the invasion of the cycle lanes by MVs. Apart from significant technology and equipment purchase, all project cities will undertake substantial increases in signs and markings to enhance the preventive element of traffic management. The project will finance junction channelization and other improvements to ensure safe mobility for all classes of users on project roads, as well as a selected number of other intersections. All intersections, where signals will be upgraded or new signals installed, will be re-designed and channelization will be put in to reflect the volume of pedestrians and cyclists. Proper lane separation will be undertaken at the intersections and in

the vicinity of these intersections; and safety islands will be built where pedestrian and bicycle volumes are high enough. All of the cities, except Liaoyang (where there is already significant length of lane separation between MVs and NMVs) will undertake lane separation between MVs and NMVs, ranging from 11 km in Benxi to 26 km in Jinzhou.

These investments will be supplemented by a series of ‘soft’ measures designed specifically to support the city RSCs to implement the NSRL. Traffic safety audits will be conducted on a set of corridors and intersections that are high volume and/or high accident prone, and actions taken to reduce the risk of accidents. Actual safety, traffic flow, and records of enforcement actions (including a summary of red light violations, speed violations, parking violations) for these corridors will be monitored annually and action plans developed jointly with the RSCs for corridors and intersections where the safety performance does not improve significantly. The action-plans will include changes in enforcement strategies, traffic management, black-spot improvements and other similar strategic measures. In terms of traffic flow, public transport flows will be explicitly monitored and action plans focusing on public transport oriented traffic management developed to facilitate public transport improvements. It is expected that the concentration of effort related to improved safety, flow and public transport service would maximize the impact of the project on these selected corridors.

- The **Public Transport Component (PT)** [US\$14.45 million, WB \$8.6 million] includes provision of bus priority facilities and improvements in public transport planning and operations in the project cities. This consists of investments in: (a) public transport infrastructure at bus stops, including bus shelters, upgraded bus stop signage, and bus bays allowing buses to pull in from general traffic; (b) bus interchanges and terminals, with dispatching, parking and light maintenance facilities, and for use as overnight parking facilities; (c) bus lanes and other bus-friendly traffic management measures; and (d) introduction of new routes and existing route extensions. These facilities were designed on the basis of trends in demand and service, to address existing problems and taking into account the needs of the mobility impaired. These investments will enhance the quality, safety and level of public transport services while reducing their operating and maintenance costs. In addition, the ID component supports this component by supporting TA related to bus priority, network planning, and support for restructuring of the public transport industry to increase the role of the private sector, lower net costs and increase the effectiveness of bus service. Bus Priority Lanes are proposed in Benxi, Jinzhou, Liaoyang and Panjin. The budgeted unit cost per km is based on an expectation of high quality design, best practice in road surface delineation, markings, and curbside/gantry signage, education and training campaigns, and evaluation. The project finances TA for training and study tours to understand options and best practice, which will precede implementation of the bus priority lanes.

This project also includes three relevant institutional development (ID) activities (WB\$US 1.5 million):

- **Two rounds of public participation.** A structured public participation process that included, two rounds (one at project identification, one at appraisal) of open meetings,

targeted focus groups and quantitative surveys played a significant role in project preparation. The participation process provided citizens an opportunity to express their priorities for the urban transport system and helped decision makers gain an appreciation of the value of ‘small infrastructure’ – bus facilities, improvements in secondary roads that provide ‘last mile’ access to pedestrian and cyclists, NMT separators, and pedestrian facilities like benches, toilets and street lights. This process had considerable impact on project design and significantly increased the project’s focus on improving public transport services and integrating pedestrian and cyclist considerations into infrastructure improvements. Two further rounds of participation halfway through implementation and at the end of the project have been included as part of project definition.

- **Traffic Safety Audits** on the roads and intersections in each city that have the highest safety risks.
- Technical assistance on issues related to **public transport service improvements** including enterprise reform towards competitive franchising and effective provision of on-street bus priority.

GEF Contribution and Pilot Project Specifics

GEF co-financing (US\$0.75 million) is proposed for the following incremental activities:

- ***Public Participation Mainstreaming Template:*** Providing a template for the cities to mainstream the public participation process into city-wide annual activities, developing standardized guidelines and a systematic evaluation of the participation process;
- ***Monitoring and Evaluation:*** Support the Provincial government to (i) conduct a technical review of ongoing Project activity at the city level related to improving public transport service and ensuring that the safety audits appropriate reflect the needs of non-motorized modes; and (ii) develop capacity to scale up public transport improvements and pedestrian and cyclist enhancements in cities province-wide.

The proposals for GEF co-financing would enhance the effectiveness of the baseline project significantly. In the case of the public participation, the process thus far has revealed that public participation has the potential to be an incredibly powerful tool to focus city leadership attention towards sustainable transport solutions and to align city leadership’s vision with a climate-friendly approach. The cities in Liaoning present a rare pilot for a structured participation process. The GEF project offers a valuable opportunity to convert a one-time pilot into an institutionalized mainstreamed process.

Similarly, Liaoning offers a rare environment (in the Bank’s experience) where the Provincial authorities have expressed an interest in providing guidance and scaling up city-level successful interventions that would upgrade public transport quality and integrate pedestrian and cyclist considerations into the urban road design and management system. Supporting the Provincial authorities in this manner has valuable replication potential.

Xian (Total Project US\$161.5 million, WB US \$81.5 million, GEF proposed \$2 million)

Xian Urban Transport World Bank Project

The proposed Xian Urban Transport Project (scheduled to be presented to the World Bank Board in October 2007) is currently at appraisal stage. It is a comprehensive urban transport project including investments in road and streets (e.g., spot improvements to improve the functionality and safety of the second and third ring roads, secondary roads to improve land access in rapidly developing portions of the City), public transport, traffic management and air quality management, cultural heritage access, and urban transport capacity building.

The relevant components of the project are:

- The **Public Transport Component (PT)** [Total US\$66 million, WB US\$35 million]: With the objective of improving accessibility and mobility in Xian, especially to/from and within the historic Ming Walled City, the PT component consists of a pilot BRT line, the creation of 1 integrated bus priority/traffic management corridor programs, the construction of urban bus/inter-city coach and rail passenger interchange terminals, and a new bus depot to serve a rapidly growing area of the city.
 - (1) The proposed BRT line runs east west from West Coach Station along Dongxi Fifth Road to the Textile City Coach Station, a distance of 20.1km.
 - (2) To complement the pilot BRT line, ten major corridors with a total length of 108 km have been targeted for implementation of integrated bus priority/traffic management programs including bus lanes, traffic engineering to improve bus operations, real time PT monitoring through AVL, revised service plans, and improved stops and real time passenger information. Replacement of the buses serving these corridors with lower emissions vehicles
 - (3) A new bus depot in the rapidly growing North East quadrant of the City and
 - 4) 3 intercity/long distance coach and rail /Urban bus passenger interchange terminals in less congested areas. Improved public transport “branding” and marketing are also envisaged, but not funded as part of the project.
- The **Traffic Safety and Traffic Management Component (TS)** [Total US\$33 million, WB US\$14.5 million] focuses on improving mobility, accessibility and safety for pedestrians, cyclists and bus users in the Ming walled city, and along other key corridors while sustaining mobility and accessibility for private transport users. A new Area Traffic Control (ATC) system covering 200 intersections in the Ming City equipped to handle bus priority, bicycle and pedestrian phases is included in this component. The ATC will be complemented with (i) improved enforcement measures, software and equipment; (ii) accident investigation software and equipment; (iii) dedicated facilities to improve convenience and safety for bicycle users and pedestrians; and (iv) other equipment. TA covers: (i) ATC Technical Specification and Bid Evaluation assistance; and (ii) an accident Analysis Study.
- The **Air Quality Management Component (AQM)** [Total US\$16.7 million, WB US\$10 million]: Xian Environmental Protection Bureau (XEPB) has comprehensive and ambitious plans to improve air quality by reducing vehicular emissions. To this end, the AQM component will include: (i) establishment of Xian Ambient Air Supervising and Monitoring Center, in charge of motor vehicle emission inspection and investigation, quality control,

compilation, analysis, and new policy initiatives; (ii) motor vehicle emission inspection compatible with inspection methods newly issued by the SEPA, and investigation of other control measures; (iii) air quality monitoring/data collection network; (iv) improvement of AQ information management and data analysis; (v) technical assistance for the development of a Motor Vehicle Emission Control Plan.

- The **Cultural Heritage Component** [Total US\$45 million, WB US\$21 million], is aimed at providing transportation infrastructure for protecting and enhancing two major historic sites in Xian and promoting non-motorized access to/from and within these areas. The two subcomponents are: (i) *Han Chang'an Site* – Rebuild the old Han Dynasty road network in the Chang'an City Archaeological site. The new road system will protect the old Han dynasty roads that lie 2 m underground, and promote visits to the area by pedestrians, bicyclists, electric vehicles, and horse driven carts; (ii) *Bicycle Ring inside the Ming City Wall and the 15 Scenic Spots Bicycle Route* – Construction of a network of bicycle routes within the city walls and the promotion of this initiative as a catalyst for more fundamental changes in the traffic management into/out of and within the Ming City.
- The **Institutional Development and Capacity Building Component** [Total US\$3.5 million, WB US\$3.5 million] is designed to assist Xian officials in building their capacity for transport planning, policy formulation and analysis and decision making. It will provide technical assistance for institutional strengthening and capacity building for the development of policies, programs, and investments that will ensure that project objectives and outcomes are maintained after the completion of the Bank funded project. To date, topics suggested for possible TA support in the project including developing a UT Strategy, PT planning, BRT design, and TDM.

GEF Contribution and Pilot Project Specifics

GEF co-financing (US\$2.0) million is proposed for the following incremental activities:

- ***Support for better integrating BRT and Bus Priority/traffic management with non-motorized mode:*** Support for improving performance of the bus system in all high passenger volume corridors. Assistance would be available for corridors covered under the proposed Bank project as well elsewhere (e.g., connections to Xianyang). The assistance will focus on developing and implementing a public awareness, outreach and consultation process, as well as public transport service and operations planning and traffic management and engineering measures oriented towards improving bus performance throughout the city using concepts similar to those being demonstrated in the 10 corridors.
- ***Traffic Demand management measures:*** The technical assistance will support preparation of the technical materials and logistical arrangements for a congestion pricing seminar and a public outreach program which will include presenters from China, Singapore, London and Stockholm, the US, EU etc (all the project cities will be invited). Following the seminar and based on the outcome of discussions and input from attendees and citizens, a plan for a comprehensive traffic demand management scheme for the MWC will be prepared. This would not only include strategies like congestion and parking pricing, ramping up enforcement of parking and traffic regulations, provision of remote park/ride facilities and

PT services, encouragement of car pooling etc., but would also outline the public transport improvements that would sustain the access and mobility of Ming Walled City residents, workers and visitors and make it politically acceptable.

- ***Public transport-based metropolitan planning:*** The inability to coordinate across municipal jurisdictional boundaries is one of the most significant shortcomings that inhibit metropolitan considerations to transport (and other infrastructure) problems in China today. This is particularly an issue in the fast developing areas of the coast and east where urbanization is blurring old city and municipal boundaries. Xian offers a rare opportunity (in large part because the neighboring city of Xianyang is also a proposed demonstration city) in China to develop strategic multi-modal and public transport plans on a metropolitan scale that are coordinated with land use plans.
- ***Support for Monitoring and Evaluation:*** GEF would support a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the World Bank project initiatives.

Urumqi (Total Project US\$283.1 million, WB US\$141 million, of which GEF co-financing, US \$40 million, GEF proposed \$0.7-1 million)

On-going Urumqi Urban Transport Improvement World Bank Project

The first Urumqi Urban Transport Improvement Project (Ln 4590-CN) was approved by the World Bank Board on December 19, 2000. It is a comprehensive urban transport project including investments in the road and street network, public transport, traffic management and road safety, resettlement and environmental quality, and institutional development. The project's components are as follows:

- The **Public Transport Component** (total US\$15 million, WB US\$11 million) includes investments in (i) a comprehensive public transport planning study with the intent of developing and implementing a program to reform the Urumqi Public Transport Company (UPTC); (ii) bus management and pilot dispatching systems to improve public transport maintenance and operations; and (iii) a demonstration of an integrated public transport priority and traffic management program over 5 km of the Xinhua Road corridor.
- The **Traffic Management (TM) and Road Safety Component** (Total US\$12 million, WB US\$7 million) includes (i) the implementation of traffic signals, signs, lane markings, and channelization at critical intersections; (ii) an area traffic control system; (iii) a pedestrian traffic improvement system; (iv) studies of how to improve private vehicle parking, road safety study, and traffic management; and (v) the construction of more than 1000 secondary streets and alleys using local funding.
- The **Environment Improvement Component** (Total US\$5 million, WB US\$3 million) focuses on implementation of a motor vehicle emission control strategy to mitigate air pollution resulting from increasing vehicle use. Subcomponents consist of restructuring the vehicle emission control implementation organization, developing air pollution inspection procedures, establishing emissions control standards, and putting a public education campaign into place.
- The **Institutional Strengthening Component (IT)** (Total US\$4 million, WB US\$2 million) financed the establishment of an urban transportation study and improvement center, and has been supporting studies to enhance analysis and coordination of transport planning, development and operations in a multi-modal context. Training programs to enhance the skills of the city's urban transport professionals are also being implemented.

The municipality has committed to applying for Bank financing of a second urban transport project. This project would focus on public transport and transport demand management, (specifically, on the BRT project, and parking management.) The GEF incremental financing would assist in the City in preparing a sound policy framework and investment program for this proposed project.

GEF Contribution and Pilot Project Specifics

The GEF co-financing (US\$0.75) million would support the following activities:

- ***Transit-Oriented Development/Public Transport Initiative:*** Building on the lessons of the public transport priority/traffic management sub-component of the first World Bank project, the city proposes to develop a public transport-based plan to improve linkages between the rapidly growing satellite cities in the northeast and northwest and the urban core. This plan, whose preparation will be financed by the GEF, will feature a hierarchical public transport network, with BRT lines in the respective corridors forming the system's backbone. In order to maximize the sustainability of the satellite cities, land use plans will reflect transit and non-motorized transport -oriented development (TOD) principals. For example, BRT stations and terminals will serve as focal points for mixed-use development in the newly developing areas. To gain stakeholder acceptance of this approach, the participation of people living and working along the corridors in the planning process will be encouraged.
- ***Traffic/Parking Management:*** The city wishes to complement its TOD/BRT initiative with development of traffic and parking management schemes to mitigate the effects of rapid increases in private vehicle ownership. Policy initiatives to be considered include establishing designated off-street parking areas, concessioning off- and on-street parking management to private companies. Strategies that restrict parking on roads and sidewalks, especially around public transport stops will be developed as will methods for improving the enforcement of all traffic and parking management schemes.
- ***Institutional Development:*** It is proposed that a single municipal agency be responsible for both the GEF and Bank projects. GEF funds will be used to strengthen this multi-modal planning, coordination and project management organization to help ensure the maximum benefit from the proposed investments.
- ***Monitoring and Evaluation:*** GEF funds would be used for activities directed to monitoring and evaluating the costs, benefits and impacts of the city's first World Bank project initiative. The results would be used to guide detailed project preparation for the second World Bank project as well as other transport investments.

Guangzhou (Total Project US\$586 million, WB US\$200 million, of which GEF co-financing US\$5 million co-financing, GEF proposed \$0.75 million)

Guangzhou City Center Transport World Bank Project

The Guangzhou City Center Transport Project (Ln 4329-CN) was approved by the World Bank Board on May 29, 1998. It is a comprehensive urban transport project including investments in road network, public transport, traffic management and safety, air quality control, road maintenance, and institutional strengthening. GEF is being asked to co-finance activities associated with the following components of the Bank financed Project:

- The **Public Transport Component (PT)** (US\$14 million, WB US\$ 11 million) financed the Longxi bus maintenance depot, and has been implementing a city-wide comprehensive bus

dispatching information system and advancing pilot studies on a BRT initiative. An operational improvement study for Longxi bus maintenance was carried out to guide the improvement of the bus maintenance operational management system. The municipality has planned to implement a BRT program this year.

- The **Traffic Management and Safety Component (TM)** (US\$36 million, WB US\$26 million) financed the implementation a junction channelization designed by an international consultant firm. Gradually, the TM programs have been fully designed by local teams and have included not only junction channelization but bus lane improvement, pedestrian improvement, and safety facilities. The current TM phase consists of a pedestrian information system. The development of this system was enhanced by the opinions of residents in the area and has been developed into a large systematic pedestrian information system. The first demand management study in China done recently has provided a positive guidance to traffic management enforcement in Guangzhou. Given the successful implementation and results of TM programs, the municipality has provided more funds to improve TM.
- The **Air Quality Control Component (AQM)** (US\$3 million, WB US\$3 million) consists of the implementation of a program to control and reduce air pollution from mobile sources in Guangzhou through the provision of equipment, consultants, and training.
- The **Institutional Strengthening Component** (US\$11 million, WB US\$11 million) includes five phases and has strengthened the managerial, technical, planning and implementation capacity of the municipal agencies through the provision of equipment, consultant services, and training. The first Guangzhou Urban Transport Strategy Study (GUTS 1), financed by World Bank financing, has provided a strong foundation for urban transport development in the last ten years. GUTS2 was implemented using local funds. The GUTS 3 was drafted in 2006 using local funds, and GUTS 4 is currently under planning using Bank financing. The objectives of the GUTS 4 are to evaluate the GUTS 3 and develop a sustainable urban transport investment program to ensure a safe transport system, promote public transport, manage the use of private vehicles, and integrate all transport modes. The GUTS 4 will provide a basic strategic foundation for the proposed GEF program.

GEF Contribution and Pilot Project Specifics

GEF co-financing (US\$0.75) million is proposed for the following incremental activities:

- ***Traffic Demand Management Measures:*** In order to increase the effectiveness of the initiatives taken by Guangzhou as part of the World Bank project, GEF will support a second study on the development of demand management measures. These will include: (i) rationalization of the urban spatial arrangement to prioritize public transport; (ii) trip management of NMT; (iii) traffic flow, spatial and time distribution balancing; and (iv) automobile use restraints including parking policy enforcement, parking demand management, and congestion pricing

- **Monitoring and Evaluation:** GEF would support a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the World Bank project initiatives.

Simultaneously with GUTS 4 and the proposed GEF study, the city is focusing on steps to integrate all public transport modes. This domestically financed work will support Guangzhou to further integrate the highly complex public transportation systems and infrastructure in the city. The GEF study will complement the existing studies with a more ambitious set of solutions – at a time when the City is keen to find innovative solutions to their traffic congestion and air quality problems ahead of upcoming Asian Games in 2010.

Changzhi (GEF proposed US\$0.5-0.75 million)

GEF Contribution and Pilot Project Specifics

Changzhi has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Review the comprehensive transport plan for the city ensure consistency with the city's Master Plan, and with a vision for promoting public transport priority;
- **Strategic Policymaking Study:** Develop an urban transport white paper for guiding future decisions on land-use, infrastructure development, traffic management, public transport provision, NMT and pedestrian infrastructure and related issues;
- **Feasibility Studies:** Identify and conduct feasibility studies for key short-term *projects* consistent with such a vision including bus priority or improvement schemes, enhancement to bicycle infrastructure and parking and automobile use restrictions; and
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Changzhi has proposed the following follow-on investments:

- **Promotion of NMT and clean transport:** Construction of pedestrian walkways and bicycle lanes and parking in order to promote non-motorized transport.
- **Traffic/Parking Management:** Investment in traffic management, including the installation of GPS and public transport priority signaling, and the improvement of pedestrian signal phasing.
- **Publicity to Increase Public Transport Ridership:** Improving the advertisement and dissemination campaigns of the city's public transport facilities in terms of level of outreach and intensity.
- **Public Transport Upgrades:** Upgrade and "greening" of public transport: Investment in hybrid buses; upgrading buses to Euro III emission standards and 230 buses to Euro IV standards; installing two to five CNG stations; and setting up charging devices for battery-powered buses. There are also plans for construction of terminal stations, the

establishment of bus priority lanes, and the implementation of an intelligent transport system.

Dongguan (GEF proposed US\$0.75 million)

GEF Contribution and Pilot Project Specifics

Dongguan has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Start with a review of the existing policies and plans on the public transportation system and its correlation with the city's master plan to ensure consistency and guarantee that future plans promote public transport priority;
- **Strategic Policymaking Study:** Establish a set of guiding principles, strategies and tactics that could guide future decisions on developing institutional arrangements leading to a closer integration between planning, management and operation of transport and related land-use infrastructure. Integrating land use and controls on urban development with road construction plans targeted to giving priority to public transport and NMT tackle Dongguan's low density urbanization (by Chinese standards) and land scarcity.
- **BRT Feasibility Studies:** Identify and conduct feasibility studies for key short-term *projects* consistent with such a vision including the establishment of BRT corridors and steps to maximize the land value of these corridors, both in terms of urban development and infrastructure for NMV.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Dongguan has proposed the following follow-on investments:

- **BRT and Metro:** Construction of BRT corridors pursuant to recommendations stated by the feasibility studies and based on international best practices. The BRT investment would be complemented with additional public transport investments in the design of metro rail lines.
- **Public Transport Upgrades:** Investment in (i) public transport stations and terminals to provide more efficient operation and passenger-friendly transfers; (ii) intelligent transport systems to improve traffic management and establish public transport priority signaling.
- **Traffic/Parking Management:** Improvement of the public transport management system in accordance with the recommendations of the study financed by GEF.

Xianyang (proposed WB project US\$60 million, GEF proposed US\$0.5 million)

GEF Contribution and Pilot Project Specifics

Xianyang has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Start with a review of the Xianyang Comprehensive Traffic Development Plan and the Public Transit Development Plan and ensure their consistency with the city's master plan.
- **Public Transport Metropolitan Planning and Management Strategy:** Establish a plan whereby the city explores different possibilities through which Xianyang can join efforts with Xian to achieve similar objectives for the region. This approach includes a plan to improve institutional integration and establish a common public transport management strategy to align policy measures and tackle common issues such as the improvement of taxi operation and management and the establishment of common public bus operators. Also included would be a study on the best ways to establish a common approach towards the integration of transportation and land use planning in the region, providing an important demonstration for healthy regional integration.
- **Inter-municipal Public Transport/BRT Feasibility Studies:** Identify and conduct feasibility studies for key short-term *projects* consistent with such a vision including (i) studies for the proposed intercity BRT corridors and (ii) designing guidelines to develop the corridors connecting Xian and Xianyang under a transit-oriented platform, and explore the options available for the integration of bus priority along these corridors.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Xianyang has proposed the following follow-on investments:

- **BRT: (US\$54.3 million; World Bank US\$28.5 million)** Construction of 34 bus priority lines, 6 BRT lines, bus stops, and avant-grade interchange stations, both for local and intercity routes;
- **Public Transport Upgrades:** Investment in refitting 200 buses with natural gas tanks in order to curb emissions and equipping the public transport operations platform with an intelligent fare collection system, or IC card, to improve the efficiency of the service.

Zhengzhou (GEF proposed US\$0.8 million)

GEF Contribution and Pilot Project Specifics

Zhengzhou's proposal focuses on the planning of a three-phased BRT project. The city plans to use GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Start with a review of the city's strategic plan for public transport and develop a plan for the pilot BRT corridor(s) in the context of the plan.
- **BRT Feasibility Studies:** Carry out a BRT feasibility study for the first phase that integrates issues related to service planning, operational integration with feeder services and the bus network, fare integration, and technology.

- **Operational and Institutional Management Strengthening:** Develop a series of smaller studies to strengthen operational and institutional management of the city's public transport services which would include: (i) restructuring the bus industry to maximize benefits of competition and identifying the appropriate role of private investors in bus operations; (ii) developing an understanding of how the City could most effectively spend money to support public transport; in particular to compare the impact of low fares with other alternative ways to use public financing.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Zhengzhou has proposed the following follow-on investments:

- **BRT:** Construction of the first phase of BRT. Completion of the city's plans for construction of terminal and bus stop infrastructure will complement this BRT phase.
- **Metro Network:** Planning and construction of six metro lines
- **Traffic/Parking Management:** Develop a strong parking strategy to guide and adjust parking demand; and establish auto quota systems, taxation, and licensing.

Jiaozuo (Proposed WB project US\$138.7 million, GEF proposed US\$0.6 million)

GEF Contribution and Pilot Project Specifics

Jiaozuo has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Review existing public transport strategy, and integrate this strategy into the city's financial, construction, and master plans, with the intention of establishing a vision that will promote public transport priority;
- **Strategic Policymaking Study:** Develop a set of guiding principles, strategies and tactics for the city leadership that could guide future decisions on land-use, road development, traffic management, public transport provision, NMT and pedestrian infrastructure and related issues;
- **BRT Feasibility Studies:** Identify and conduct feasibility studies for key short-term *projects* consistent with such a vision including bus priority schemes, parking restriction policies, automobile use controls as taxation and licensing restrictions, and enhancement to bicycle infrastructure; and
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Jiaozuo will work in junction with the other small cities participating in the GEF project, namely Changzhi, Xianfang and Linfen, to establish a common implementation platform whereby locally procured consultants implementing the work would be supervised and guided by a common expert group. In this way, the four small cities will maximize the gains of the GEF grant.

Follow-on Investments

Subject to finalization based on the results of this work, Jiaozuo has proposed the following follow-on investments:

- **BRT:** Construction of one pilot BRT line, one electric trolley line, and their corresponding interchange stations and stops.
- **Traffic/Parking Management:** Investment in the improvement of traffic management schemes such as organizing motorized and non-motorized vehicle parking, and pollution reduction strategies.

Luoyang (Proposed WB project US\$62.3 million, GEF proposed US\$0.6 million)

GEF Contribution and Pilot Project Specifics

Luoyang has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Review Luoyang public transport management plan and ensure its consistency with the city's master plan, in order to promote a vision for the city that gives priority to public transport.
- **BRT Feasibility Studies:** Conduct a series of feasibility studies for the implementation of BRT, which would include strategies on bus operation and management improvement schemes and integration of BRT with the other modes of public transport in the city.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Luoyang has proposed the following follow-on investments:

- **BRT: (US\$52.2 million)** Construction of BRT lines with corresponding interchange stations and bus stops;
- **Public Transport Upgrades:** Upgrading of their existent trolley lines and implementation of new electric trolleys; upgrading of buses to use of natural gas tanks; and investment in ITS upgrading, signaling, and policing.

Nanchang (Total Project US\$168.5 million, Proposed WB project US\$139.2 million, GEF proposed US\$1 million)

GEF Contribution and Pilot Project Specifics

Nanchang's proposal is based on the redevelopment of two areas – the peri-urban Chaoyang and industrial Binjiang areas – into new residential districts, and the establishment of bus priority in the city center. GEF co-financing would be used for:

- **Integrated Urban and Transport Planning:** Reviewing the public transport management plan and ensuring its consistency with the city's master plan in order to promote a vision for the city targeted towards public transport priority.
- **Transit-oriented Development.** Conducting a consultancy that would plan the redevelopment of Chaoyang and Binjiang areas based on the principles of a Transit oriented Development (TOD) strategy. The TOD plans would address:
 - i. The quality of (and as needed measures to improve) bus connections between the redevelopment district and the city center.
 - ii. The development of the road network inside the district focused on public transit priority and NMT priority, with bus priority lanes and the establishment of a thick grid of secondary roads to facilitate pedestrian and cyclist trips.
 - iii. An urban development plan that focuses land development along main corridors and about major bus-stops, thereby ensuring that a majority of residents live within walking distance to a good bus connection;
 - iv. Detailed urban design guidelines (and as appropriate regulations) that ensure that buildings, sidewalks and transit infrastructure is designed to maximize the competitive advantage of bus over competing modes. The guidelines would consider issues as prohibition of parking lots in front of buildings, provision of awnings on sidewalks, and integration of stations with commercial developments.
 - v. Urban development plans that facilitate shorter walking and cycling trips by providing schools, shopping, medical, and recreational facilities conveniently in the district.
- **BRT Feasibility Studies.** Planning for the bus priority plans will include:
 - i. An assessment of the urban road plan to review if ad-hoc development of viaducts and flyovers was compatible with either a congestion management objective (in view of the Chinese and international experience which suggested that such actions were usually temporary solutions that were rendered ineffective with continued traffic growth) or a vision for a people-centered city that promoted public transport priority.
 - ii. An assessment of the demand, bus route and trunk road network to identify appropriate forms of bus priority including service planning modifications, bus lanes on the side or center of the road and the possibility of developing BRT on key trunk routes.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Nanchang has proposed the following follow-on investments:

- **BRT/Trolleys:** Construction of 45 new corridors with exclusive bus ways in efforts to increase the public transport share by 25% (currently the share is 13%). Trolley bus lines are also planned.

- **Promotion of NMT and clean transport:** Improvement of NMT facilities, infrastructure, and safety in the city center and the areas being redeveloped.
- **Traffic/Parking Management:** Development of guidelines and enforcement measures to improve parking management and adjust demand, and investment in other traffic management measures including ITS upgrading, signaling, and policing.
- **Accessibility Enhancements:** Construction of several bridges and tunnels across the Gan River which will incorporate BRT or bus priority lanes and are meant to improve accessibility and connectivity within the city.

Linfen (GEF proposed US\$0.5-0.75 million)

GEF Contribution and Pilot Project Specifics

Linfen has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Review existing master plan to ensure consistency between transport and land-use plans, and that they portray a vision that prioritizes public transport;
- **Strategic Policymaking Study:** Develop a set of guiding principles, strategies and tactics for the city leadership that could guide future decisions on land-use, road development, traffic management, NMT and pedestrian infrastructure and related issues, and public transport provision;
- **Feasibility Studies:** Identify and conduct feasibility studies for key short-term *projects* consistent with such a vision including (i) bus priority or improvement schemes related to issues with routing; (ii) enhancement to bicycle infrastructure and parking, in order to better serve the needs of the largest percentage of the population which uses this transport mode; and (iii) restrictions on automobile use and improvements on parking regulations and enforcement measures; and
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Linfen has proposed the following follow-on investments:

- **BRT:** Construction of bus priority lanes and exclusive bus lanes on all mayor and minor arterials in the city, with average bus stop distances of 500mts.
- **Promotion of NMT and clean transport:** Construction of bikeways and walkways to promote non-motorized transport, including the provision of bicycle parking around the city.
- **Public Transport Improvements:** Construction of five at-grade bus terminals, and reorganization of motorized parking to avoid street side and sidewalk parking; increasing the bus fleet by 100 buses in the next year; and investing in the implementation of strategies to control automobile emissions.

Chongqing (GEF proposed US\$1 million)

GEF Contribution and Pilot Project Specifics

The objectives of the Chongqing pilot demonstration are the following:

1. Establish a short-term plan to increase rail ridership on the existing rail line
2. Develop a plan for institutional and policy modifications to current regime that would maximize benefits from planned and ongoing rail investments
3. Conduct a feasibility study for an initial BRT plan in the context of a strategic plan that would complement the rail investments

The city's proposal focuses on actionable recommendations and suggests GEF co-financing for the following activities:

- **Public Transport Management and Integration Strategy:** Explore suitable public transportation systems and management policies for the city, and formulate priority policies and actions to promote public transport. The main task will focus on (i) developing a short-term plan to increase ridership of the existing rail lines; and (ii) examining ways to integrate the planning and management of different public transport modes, including the implementation of integrated technology and fare collection, in an overarching administrative institution.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Chongqing has proposed the following follow-on investments:

- **Rail infrastructure: (US\$18.81million)** Chongqing has already constructed rail Line 2 and is currently starting work on Line 1. The rail company will develop a workable financing plan for the pending lines.
- **BRT:** Construction of one 45km. pilot BRT line, parallel to the rail Line 3 under construction, and a second line feeding the southern terminal of rail line 2.

Weihai (GEF proposed US\$0.75 million)

GEF Contribution and Pilot Project Specifics

Weihai has proposed using GEF co-financing to conduct a consultancy that would:

- **Integrated Urban and Transport Planning:** Review of the existing master plan and develop a strategic public transport plan consistent with the master plan and a vision for promoting public transport priority;
- **Strategic Policymaking Study:** Then develop a set of guiding principles, strategies and tactics to ensure the prioritization of public transport in the city, where issues on land-use,

road development, traffic management, public transport provision, and NMT and pedestrian infrastructure are considered.

- **BRT Feasibility Studies:** Conduct feasibility studies for key short-term projects consistent with such a vision including: (i) establishment of the three planned BRT corridors and associated infrastructure; (ii) establishment of a public-private partnership or another market-oriented arrangement for BRT corridor operators; and (iii) provision of walkways and bikeways around the city.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Weihai has proposed the following follow-on investments:

- **BRT:** Construction of three BRT corridors and their related infrastructure as well as the development of a network for their demonstration routes.
- **Promotion of NMT and clean transport:** Construction of pedestrian walkways and bicycle lanes and parking in order to promote non-motorized transport.

Jinan (Proposed GEF co-financing US\$1-1.8 million)

GEF Contribution and Pilot Project Specifics

Jinan is highly committed to promoting public transport and put forth a very strong project proposal. With the guidance of Hewitt foundation and Energy Foundation, and within the framework of a progressive urban vision based on scientific analysis, a people-centered approach, and innovation, Jinan has proposed using GEF co-financing to conduct the following consultancy works:

- **Integrated Urban and Transport Planning:** Review of the existing master plan to ensure that it is aimed towards a sustainable development scheme and that transport planning is fully integrated, guided by the establishment of a high capacity public transport system.
- **BRT Feasibility Studies:** Conduct a series of feasibility studies that support the city's ongoing plans to realize a BRT network, namely data collection and benchmarking activities for the key BRT lines including the Jinshi and Lifan lines in the city center.
- **NMT/TOD Studies:** Conduct a series of complementary studies related to NMT, TOD and automobile restraints to reinforce the ongoing improvements in public transport. These studies include congestion pricing – this would set the first experience with congestion pricing in China – and variable parking fees.
- **Monitoring and Evaluation:** Conduct a series of monitoring and evaluation activities to measure the benefits gained by the city so far as a result of the GEF project initiatives.

Follow-on Investments

Subject to finalization based on the results of this work, Jinan has planned the following follow-on investments:

- ***BRT network and TOD development: (US\$2.6 million)*** Currently one BRT line is under construction. The short-term plan includes 65 km. of BRT exclusive bus lanes and the long-term plan includes a network of 290km. This will meet the city's objectives of optimizing the public transport system through the establishment of a grading bus route function and a high-access, high-capacity system. BRT will promote the use of environment-friendly transit through the use of clean fuel buses. The city will maximize the benefits of BRT by modifying the land use mode along the corridors to establish high-density development.
- ***Promotion of NMT and clean transport:*** The city will create a model area where investment in NMT infrastructure will increase safety, improve accessibility, and facilitate transfers to other transport modes. On clean transport, the Euro III emission standards will be popularized and electronically powered trolleys promoted. The city center will establish restraints on automobile use.
- ***Institutional Strengthening:*** The establishment of a multi-modal, overarching institution to develop the planning and operation of transportation in the city. This institution will tackle issues including long-term institutional change for the bus company and new alternatives for financing of public transport such as public-private partnerships.

Annex 5: Project Costs

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

a) **PROJECT COSTS**

<i>Project Components/Outcomes</i>	<i>Co-financing (\$)</i>	<i>GEF (\$)</i>	<i>Total (\$)</i>
1. National Strategy Development and Capacity Building	25 million	7 million	32 million
2. Pilot City Demonstration Projects	559.75 million	13 million	572.75 m
4.			
5. Project management budget/cost	1 million	1 million	2 million
Total project costs	585.75 million	21 million	606.75 million

b) **PROJECT MANAGEMENT BUDGET/COST**

<i>Component</i>	<i>Estimated staff-weeks</i>	<i>GEF(\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
<i>Locally recruited personnel*</i>	1368	0.4 million	0.3 million	0.7 million
<i>Internationally recruited consultants*</i>	134	0.2 million	0.2 million	0.4 million
<i>Office facilities, equipment, vehicles and communications*</i>	0	0.25 million	0.3 million	0.55 million
Travel		0.0 million	0.25 million	0.25 million
Miscellaneous		0.05 million	0.05 million	0.1 million
Total		1 million	1 million	2 million

* *These costs include costs of translation, interpreters, computers and software. No vehicles will be purchased.*

C) CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Estimated staffweeks</i>	<i>GEF(\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
<i>Personnel</i>	5568	0.33 million	0.44 million	0.77 million
<i>Local consultants</i>	12644	5.90 million	0.39 million	6.29 million
<i>International consultants</i>	2088	5.25 million	0	5.25 million
<i>Total</i>	20300	11.48 million	0.83 million	12.31 million

d) CO-FINANCING SOURCES

<i>Co-financing Sources</i>				
Name of co-financier (source)	Classification	Type	Amount (\$)	Status*
Government of China	Nat'l Gov't	in kind and in cash	6m	Confirmed w/ Leter of Commitment
City Governments of 14 demonstration cities	Local Gov't	In cash	356.75m	Confirmed w/ Leter of Commitment
City governments of 14 cities plus 11 cities interacting with World Bank **	Local Govtt	In cash and kind	20m	Money spent on project and masterplan development
World Bank	Impl. Agency	in cash	203 m	Loans under implementation and preparation
Sub-total co-financing			585.75 million	

** 11 cities interacting with World Bank include: Fushun, Benxi, Liaoyang, Jinzhou, and Panjin in Liaoning; Wuhan in Hubei; Taiyuan in Shanxi, Shijazhuang in Hebei, Fuzhou in Fujian, Hefei and Wuhu in Anhui.

Details of Financing provided for Component 2

Cities	WB	Municipal Government		Total
		co-financing	leveraged financing	
Liaoning Province	76.5	64.75		141.25
Xi'an	81.5	80		161.5
Urumqi	40	10		50
Guangzhou	5	8		13
Changzhi			3	3
Dongguan			9	9
Xianyang			3	3
Zhengzhou			10	10
Jiaozuo			3	3
Luoyang			5	5
Nanchang			30	30
Linfen			4	4
Chongqing			90	90
Weihai			7	7
Jinan			30	30
<i>Subtotal</i>	203	162.75	194	559.75

Notes:

1. These costs are programmed city investments in local projects associated with GEF project phase one (2-3 years) implementation for promoting sustainable transport and reducing greenhouse gas emissions.
2. Under the guidance of the GEF project, further investment by the cities is expected in the future.

The co-financing for Component 1 consists of co-financing promised by the Ministry of Finance on behalf of the National Government (US\$5 million), as well as co-financing resources spent by local governments to update their master-plans and develop project designs. The manuals, guidelines and standards developed as part of Component 1B will directly feed into the regular master-plan updates and project development designs undertaken by cities all across China. This impact will be monitored and guided by project partners in all the demonstration cities and with other cities the Bank and the project partners are working with on urban transport projects. The co-financing reported (US\$20 million) is a conservative calculation of the resources spent by these 30 cities (14 project cities, 5 project cities in Liaoning, 3 other cities where the Bank is actively working on urban transport and 8 cities that the partner central government institutes are working with) on their master-plan updates. This calculation is conservative – since, the

institutionalization of sustainable transport principles into detailed support will produce immediate benefits all across the country in the form of better plans and projects.

Other co-financing will be provided by the (i) University partners that spend resources in supporting the development and implementation of new curricula for academic training; and (ii) Institutes under NDRC and elsewhere that use spend resources to support the development and implementation of training courses for practitioners and decision-makers, and (iii) Institute under NDRC to maintain and update the web-based knowledge base created by Component 1B. The amount of co-financing that will be provided in these forms is substantial and will be quantified and confirmed prior to CEO endorsement.

Annex 6: Implementation Arrangements

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China's Ministry of Finance (MOF), the GEF Focal Point for China, is fully responsible for executing and coordinating the project in China. The World Bank will serve as the designated Implementation Agency for GEF for the Project.

A Project Steering Committee and Project Office (PO) have already been set up. The Project Steering Committee is formed by members from the MOF, NDRC, Ministry of Construction (MoCn), Ministry of Land and Resources (MLR), Ministry of Public Security (MPS), State Environmental Protection Agency (SEPA), and China Association of Mayors. The Steering Committee will play a key role in ensuring high-level inter-agency coordination and guiding project implementation.

The Project Office is led by chief of the MOF's International Department and supported by a Project Office staffed by adequate technical staff. The Office will be responsible for daily project management and liaison, task programming, training activities, and promotional activities. Partnerships are being negotiated with Universities that would participate in the academic elements of the training program and Institutes that would house and maintain the capacity building tools developed in the project.

The project has also set up a Project Expert Panel, which includes experts recommended by the NDRC, MoCn, MLR, MPS, SEPA and China Association of Mayors. This Panel will provide advice on project design and project studies and review technical reports.

Responsibility for monitoring project outcomes on both the national and pilot-city level will remain with the Project Office. Pilot city governments, however, will collect the local information as necessary to support the PO in this function. Details are presented in Annex 3.

The execution of the demonstration projects in the cities in Liaoning Province will be carried out by the Liaoning Urban Construction and Renewal Project Office (LUCRPO), the Project Management arm of the Liaoning Provincial Construction Commission (LPCC) that is also implementing the Bank-financed Liaoning Medium Cities Infrastructure Project (LMCIP). The LPCC is in charge of approving transport masterplans and public transport plans of Liaoning cities. The component design responds directly to requests from LUCRPO and LPCC for help in institutionalizing the public participation and to support the province to systematically address bus enterprise reform. The implementation and coordination of the GEF project will be completely integrated with those for LMCIP.

The execution of the demonstration projects in the 14 cities will be led by the municipal Finance Bureaus in each of the pilot cities. Technical support will be arranged by the municipal Development and Reform Commission (DRC). Officials and professionals of local agencies will join in the Demonstration Project Task Force, including representatives from the municipal DRC, Planning Committee, Construction Committee, Finance Bureau, Environment Protection Bureau,

Bureau of Land and Resources, Planning Bureau, Transportation Bureau, and Transport Management Bureau. These detailed arrangements are shown in Table A6.1

Table A6.1. Implementation arrangements for pilot cities

City	Implementing Body	Members
Changzhi	Project Management Center for Urban Transportation in Changzhi City, under the Program Leadership Team established by Changzhi City.	Of Program Leadership Team: Dong Yan (Standing vice Mayor and Team Leader);
Zhengzhou	Program Office under the leading group: Zhengzhou China Urban Traffic Development Strategic Partnership Demonstration Program	Leading Group made up of: Mr. Li Liushen (First Deputy Mayor and leader) and members of City Municipal Government, City Development and Reform Committee, City Financial Bureau, City Municipal Facility Administration Bureau, City Public Security Bureau, and the principal of Zhenzhou Public Transport General Company.
Urumqi	Office is arranged in the municipal development and reform commission	Urumqi Leading Group
Luoyang	Project Office of Luoyang	Vice Mayor Wu Zhongyang (leader); Vice Mayor Ding Fuhao (deputy group leader); Luoyang Finance Bureau; Committee of Development and Reform; Committee of construction; Bureau of Transportation; Bureau of Public Utilities; Police Station; Planning and Layout; Land Resources
Chongqing	Leading Group	Yu Yuanmu, Vice Mayor (Group Leader); Cheng Zhiyi, Deputy Secretary-general of Chongqing Municipal People's Government (Vice Group Leader); Chen Yuanchun, Vice Director-general of Chongqing Bureau of Finance; Tang Yingyu, Vice Chairman of Chongqing Municipal Commission of Development and Reform; Liu Lun, Secretary of Party Commission of Chongqing Jiaotong University.
Guangzhou	Guangzhou City Center Transport Project Office (67technical staff)	Transport Project Office is under the direction of the Guangzhou City Center Transport Project Leading Group of the Municipal Government (1995). The later is comprised of leaders from Guangzhou Development and Reform Commission, Financial Bureau, Construction Commission, City Planning Bureau, Municipal Administrative and Landscape Bureau, Communication Commission, Environment Protection Bureau, and Traffic Police Detachment.

Dongguan	Demonstration Program Office; Expert consulting Liaison Office, and Demonstration Program construction Company	Han Renhai (Transportation Bureau) Director Li Xiangdong (Transportation Bureau) Deputy Chief Engineer; Huang Qingchao (Transportation Bureau) Deputy Section Chief; Luo Junwen (Finance Bureau) Deputy Director; Zai Caishan (Finance Bureau) Branch Director; Fang Zhiqiang (Finance Bureau) Supervisor; Wen Qingfang (Finance Bureau) Section Chief; Cui Yushi (Finance Bureau) Section Chief; Ouyang Nanjiang (Urban Planning Bureau) Deputy Director Wu Shimei (Urban Planning Bureau) Deputy Section Chief; Huang Bing (Environment Protection Bureau) Section Chief
Jinan	Project Team	Mayor of Jinan (team leader); DPC, CC, PUB, FB, EPB, CPB, Design, TpB, NLMB
Xianyang	Project Supervisory Committee	Mayor Qian Junchang (Director); Vice-Mayor Li Xiaoming (Vice-director); Liu Guozhi (Mayor's assistant, Director of Development and Reform Committee of Xianyang); He Xinlai (Chief of Finance Bureau); Feng Wangyun (Chief, urban and Rural Construction and Planning Bureau); Wang Jing (Chief, Urban Construction Administration); Hui Jiaping (Chief, Public Utilities Bureau); Song Jiaqi (Chief, territory resource bureau); Xing Junqiang (Leader, Traffic Policeman Team); Xi Zhongxin (Chief, Environmental Protection Bureau).
Jiaozuo	Project Management Office under the "Transportation Priority Development Leadership Group"	Construction Committee, Financial Bureau, State-owned Land Management Bureau, Committee of Development and Reform, Supervising Bureau, City Planning Management Bureau, Public Transport Corporation of Jiaozuo
Linfen	Office under the Leading group of the public transport project of Linfen city	Leading Group is under the Linfen municipal Development and Reform Committee;
Weihai	To be confirmed	To be confirmed
Nanchang	To be confirmed	To be confirmed
Xian	To be confirmed	To be confirmed
Liaoning province	Liaoning Urban Construction and Renewal Project Office (LUCRPO) under the Liaoning Provincial Construction Commission guided by Leading Group	Leading Group led by Vice Governor including departments of Finance, Development and Reform Committee and Construction Commission.

Annex 7: Financial Management and Disbursement Arrangements
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To be finalized at appraisal

Annex 8: Procurement Arrangements

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Template below – to be finalized at appraisal

A. General

Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits" dated May 2004; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan/Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Procurement of Works: Works procured under this project would include: *[Describe the types of works]*. The procurement will be done using the Bank's Standard Bidding Documents (SBD) for all ICB and National SBD agreed with or satisfactory to the Bank. *[Indicate any special requirements specific to the project.]* *[If the project involves procurement carried out by communities, indicate where details can be found in the Project Implementation Manual or similar documents.]*

Procurement of Goods: Goods procured under this project would include :*[Describe the types of goods]*. The procurement will be done using the Bank's SBD for all ICB and National SBD agreed with or satisfactory to the Bank. *[Indicate any special requirements specific to the project.]*

Procurement of non-consulting services: *[Provide a general description of non-consulting services to be procured under the project and information on the bidding documents to be used for the procurement.]*

Selection of Consultants : *[Provide a general description of the consulting services from firms and individuals required for the project.]* Short lists of consultants for services estimated to cost less than USD_____equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. *[If applicable, provide any information regarding engaging universities, government research institutions, public training institutions, NGOs, or any special organizations.]*

Operating Costs: *[Describe the operating costs which would be financed by the project and procured using the implementing agency's administrative procedures which were reviewed and found acceptable to the Bank.]*

Others: *[Describe if any special arrangements for scholarships, grants etc.]*

The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for works and goods procured, are presented in the *[name the Project Implementation Manual or the equivalent document]*.

B. Assessment of the agency's capacity to implement procurement

Procurement activities will be carried out by *[name of the Implementing Agency]*. The agency is staffed by *[describe the key staff positions]*, and the procurement function is staffed by *[describe the staff who will handle procurement]*.

An assessment of the capacity of the Implementing Agency to implement procurement actions for the project has been carried out by *[name of the procurement staff]* on *[date]*. The assessment reviewed the organizational structure for implementing the project and the interaction between the project's staff responsible for procurement Officer and the Ministry's relevant central unit for administration and finance.

The key issues and risks concerning procurement for implementation of the project have been identified and include *[describe the risks/issues]*. The corrective measures which have been agreed are *[Describe the corrective measures]*.

The overall project risk for procurement is *[give the risk rating]*.

C. Procurement Plan

The Borrower, at appraisal, developed a procurement plan for project implementation which provides the basis for the procurement methods. This plan has been agreed between the Borrower and the Project Team on *[date]* and is available at *[provide the office name and location]*. It will also be available in the project's database and in the Bank's external website. The Procurement Plan will be updated in agreement with the Project Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

D. Frequency of Procurement Supervision

In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended *[frequency]* supervision missions to visit the field to carry out post review of procurement actions.

Table A8.1 Estimated procurement by task

Window	Expenditure category	Total	
		GEF USD	Co-financing USD
Overall Project Budget (Component 2)	Goods & Non-consulting services		
	Works		
	Consulting Services		
	Operating costs		
	Total		

E. Details of the Procurement Arrangements Involving International Competition

1. Goods, Works, and Non Consulting Services

(a) List of contract packages to be procured following ICB and direct contracting:

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost	Procurement Method	P-Q	Domestic Preference (yes/no)	Review by Bank (Prior / Post)	Expected Bid-Opening Date	Comments

(b) ICB contracts estimated to cost above [fill in threshold amount] per contract and all direct contracting will be subject to prior review by the Bank.

2. Consulting Services

(a) List of consulting assignments with short-list of international firms.

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated Cost	Selection Method	Review by Bank (Prior / Post)	Expected Proposals Submission Date	Comments

(b) Consultancy services estimated to cost above [fill in threshold amount] per contract and single source selection of consultants (firms) for assignments estimated to cost above [fill in threshold amount] will be subject to prior review by the Bank.

(c) Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than [fill in threshold amount] equivalent per contract, may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Annex 9: Economic Analysis

**PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport
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finalized at appraisal

Annex 10: Safeguard Policy Issues (WB)

**PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport
Partnership Program**

finalized at appraisal

Annex 11: Project Preparation and Supervision (WB)
PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Table A11.1: Project Schedule

Stage of Project	Planned	Actual
PCN review		September 18, 2006
Initial PID to PIC		
Initial ISDS to PIC		
GEF Council Approval	March 23, 2007	
Appraisal	September 4, 2007	
Negotiations	October 29, 2007	
Board or RVP approval	December 11, 2007	
Planned date of effectiveness		
Planned date of midterm review		
Planned closing date		

Key institutions responsible for preparation of the project:

- Ministry of Finance
- National Development and Reform Commission
- Project Management Office
- China Transportation Association
- Ministry of Construction
- China Mayor Association
- Ministry of Public Security
- Southeast University
- Ministry of Land and Resources
- State Environmental Protection Administration
- Beijing Normal University

Bank staff and consultants who worked on the project are listed in Table A11.2.

Table A11.2: Bank Staff and Consultants Assigned to Project

Name	Title	Unit
Shomik Raj Mehndiratta	Senior Transport Specialist and Task Team Leader	East Asia Transport, Energy and Mining Sector Unit
Carlos Escudero	Lead Counsel	East Asia Legal Department
Junxue Chu	Finance Officer	Financial Management and Disbursement Group 1
Wenling Chen	Junior Professional Associate	East Asia Transport, Energy and Mining Sector Unit
Zhi Liu	Lead Infrastructure Specialist	East Asia Transport, Energy and Mining Sector Unit
Yan Zong	Transport Specialist	East Asia Transport, Energy and Mining Sector Unit
Samuel Zimmerman	E T Consultant	Development Department
Mariana Torres	Junior Professional Associate	Energy Transport and Water Department, Transport Unit
Anna Okola	Young Professional	East Asia Transport, Energy and Mining Sector Unit
Maria Luisa Juico	Program Assistant	East Asia Transport, Energy and Mining Sector Unit
Xuan Peng	Team Assistant	East Asia Transport, Energy and Mining Sector Unit
Imogene Jensen	Quality Review	East Asia Operations and Policy Unit
Pierre Graftieaux	Peer Reviewer	Africa Transport
Bert Hofman	Peer Reviewer	Poverty Reduction and Economic Management Sector Unit
Walter Hook	Peer Reviewer	Consultant
Ke Fang	Urban Transport Specialist	South Asia Energy and Infrastructure
Setty Pendakur	STAP Reviewer	East Asia Transport, Energy and Mining Sector Unit
Roger Gorham	Urban Transport/Climate Change Consultant	Middle East Sustainable Development Department
Shyam Menon	Consultant	Energy Transport and Water Department, Transport Unit

Annex 12: Documents in the Project File (WB)

**PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport
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1. Aide-memoires of Bank mission
 2. Consulting reports submitted to PMO, December 2006
 3. Draft input for GEF Project Brief submitted by PMO, January 2007
 4. Opinion 46, China State Council
- will be completed at appraisal*

Annex 13: Statement of Loans and Credits (WB)

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P086515	2007	CN-3rd National Railway	200.00	0.00	0.00	0.00	0.00	200.00	0.00	0.00
P088964	2007	CN-Guangxi Integrated Forestry Dev	100.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00
P083322	2007	CN-Sichuan Urban Develop	180.00	0.00	0.00	0.00	0.00	177.00	-3.00	0.00
P077752	2007	CN-2nd Shandong Environment Project	147.00	0.00	0.00	0.00	0.00	147.00	0.00	0.00
P091020	2007	CN-Fujian Highway Sector Investment	320.00	0.00	0.00	0.00	0.00	320.00	0.00	0.00
P075613	2007	CN-Shaanxi Ankang Road Development	300.00	0.00	0.00	0.00	0.00	300.00	0.00	0.00
P075732	2006	CN-SHANGHAI URBAN APL2	180.00	0.00	0.00	0.00	0.00	153.11	-3.56	0.00
P070519	2006	CN-Fuzhou Nantai Island Peri-Urban Dev	100.00	0.00	0.00	0.00	0.00	99.75	10.42	0.00
P081255	2006	CN-Changjiang/Pearl River Watershed Reha	100.00	0.00	0.00	0.00	0.00	97.75	4.75	0.00
P082993	2006	CN-GEF-PCB Mgnt & Disposal	0.00	0.00	0.00	18.34	0.00	18.34	5.16	0.00
P084742	2006	CN-IAL III	200.00	0.00	0.00	0.00	0.00	160.99	19.63	0.00
P081348	2006	CN-HENAN TOWNS WATER	150.00	0.00	0.00	0.00	0.00	149.63	1.29	0.00
P082992	2006	CN-GEF-Termite Control Demonstration	0.00	0.00	0.00	14.36	0.00	14.36	0.00	0.00
P085124	2006	CN-Ecnomic Reform Implementation	20.00	0.00	0.00	0.00	0.00	18.44	-0.69	0.00
P085333	2006	CN-5th Inland Waterways	100.00	0.00	0.00	0.00	0.00	80.58	8.34	0.00
P099992	2006	CN-Liaoning Medium Cities Infrastructure	218.00	0.00	0.00	0.00	0.00	207.46	-3.88	0.00
P096158	2006	CN-Renewable Energy II (CRESP II)	86.33	0.00	0.00	0.00	0.00	76.50	-9.83	0.00
P094388	2006	CN-HFC-23 Emissions Reduction	0.00	0.00	0.00	0.00	0.00	1,019.29	0.00	0.00
P093906	2006	CN-3rd Jiangxi Hwy	200.00	0.00	0.00	0.00	0.00	200.00	0.00	0.00
P090336	2006	CN-GEF-NINGBO WATER & ENVMT	0.00	0.00	0.00	5.00	0.00	4.50	0.37	0.00
P086629	2006	CN-Heilongjiang Dairy	100.00	0.00	0.00	0.00	0.00	96.75	-1.17	0.00
P057933	2005	CN-TAI BASIN URBAN ENVMT	61.00	0.00	0.00	0.00	0.00	37.12	10.18	0.00
P072721	2005	CN-GEF-Heat Reform & Bldg Egy Eff.	0.00	0.00	0.00	18.00	0.00	15.09	4.73	0.00
P075730	2005	CN-HUNAN URBAN DEV	172.00	0.00	0.00	0.00	0.00	160.06	29.73	0.00
P071094	2005	CN - Poor Rural Communities Development	100.00	0.00	0.00	0.00	0.00	87.43	33.36	0.00
P086505	2005	CN-NINGBO WATER & ENVMT	130.00	0.00	0.00	0.00	0.00	112.86	0.86	0.00
P069862	2005	CN - Agricultural Technology Transfer	100.00	0.00	0.00	0.00	0.00	87.46	18.36	0.00
P068752	2005	CN-Inner Mongolia Highway & Trade Corrid	100.00	0.00	0.00	0.00	0.00	76.93	5.26	0.00
P067828	2005	CN-Renewable Energy Scale-up Program	87.00	0.00	0.00	0.00	0.00	40.02	15.22	0.00
P067625	2005	CN-GEF-Renewable Energy Scale-Up Program	0.00	0.00	0.00	40.22	0.00	38.22	-0.35	0.00
P081346	2005	CN-LIUZHOU ENVIRONMENT MGMT	100.00	0.00	0.00	0.00	0.00	82.16	-0.74	0.00
P081161	2005	CN-CHONGQING SMALL CITIES	180.00	0.00	0.00	0.00	0.00	172.38	29.37	0.00
P087291	2005	CN-PCF Jincheng Coal Bed Methane Project	0.00	0.00	0.00	0.00	0.00	18.13	0.00	0.00
P075728	2004	CN-GUANGDONG/PRD UR ENVMT	128.00	0.00	0.00	0.00	0.64	79.55	-7.67	0.00
P075602	2004	CN-2nd National Railways (Zhe-Gan Line)	200.00	0.00	0.00	0.00	1.00	30.38	-35.29	-36.29
P075035	2004	CN - GEF-Hai Basin Integr. Wat. Env.Man.	0.00	0.00	0.00	17.00	0.00	11.79	8.58	0.00

P073002	2004	CN-Basic Education in Western Areas	100.00	0.00	0.00	0.00	0.00	43.65	37.73	0.00
P084003	2004	CN-GEF GUANGDONG PRD URB ENV	0.00	0.00	0.00	10.00	0.00	9.82	3.57	0.00
P065035	2004	CN-Gansu & Xinjiang Pastoral Development	66.27	0.00	0.00	0.00	0.00	30.96	10.86	0.00
P065463	2004	CN-Jiangxi Integrated Agric. Modern.	100.00	0.00	0.00	0.00	0.00	72.12	30.46	0.00
P066955	2004	CN-ZHEJIANG URBAN ENVMT	133.00	0.00	0.00	0.00	0.00	95.14	15.96	0.00
P081749	2004	CN-Hubei Shiman Highway	200.00	0.00	0.00	0.00	1.00	50.09	-2.24	0.00
P077137	2004	CN-4th Inland Waterways	91.00	0.00	0.00	0.00	0.46	66.49	15.28	14.78
P069852	2004	CN-Wuhan Urban Transport	200.00	0.00	0.00	0.00	1.00	104.50	97.94	0.00
P077615	2004	CN-GEF-Gansu & Xinjiang Pastoral Develop	0.00	0.00	0.00	10.50	0.00	6.95	7.23	0.00
P076714	2003	CN-2nd Anhui Hwy	250.00	0.00	0.00	0.00	0.00	87.60	18.60	0.00
P058847	2003	CN-3rd Xinjiang Hwy Project	150.00	0.00	0.00	0.00	0.00	30.70	21.36	0.00
P070441	2003	CN-Hubei Xiaogan Xiangfan Hwy	250.00	0.00	0.00	0.00	0.00	35.55	28.88	0.00
P070191	2003	CN-SHANGHAI URB ENVMT APL1	200.00	0.00	0.00	0.00	0.00	111.53	43.96	0.00
P068058	2003	CN-Yixing Pumped Storage Project	145.00	0.00	0.00	0.00	0.00	71.81	35.34	0.00
P067337	2003	CN-2nd GEF Energy Conservation	0.00	0.00	0.00	26.00	0.00	7.57	25.70	0.00
P040599	2003	CN-TIANJIN URB DEV II	150.00	0.00	0.00	0.00	0.00	132.04	54.82	0.00
P058846	2002	CN-Natl Railway Project	160.00	0.00	0.00	0.00	5.00	3.16	8.16	0.00
P060029	2002	CN-GEF-Sustain. Forestry Dev	0.00	0.00	0.00	16.00	0.00	6.88	13.67	0.00
P064729	2002	CN-Sustainable Forestry Development	93.90	0.00	0.00	0.00	0.00	22.44	10.68	0.00
P068049	2002	CN-Hubei Hydropower Dev in Poor Areas	105.00	0.00	0.00	0.00	0.00	20.53	10.27	0.00
P070459	2002	CN-Inner Mongolia Hwy Project	100.00	0.00	0.00	0.00	0.00	20.33	2.99	0.00
P071147	2002	CN-Tuberculosis Control Project	104.00	0.00	0.00	0.00	0.00	47.49	24.13	0.00
P045915	2001	CN-Urumqi Urban Transport	100.00	0.00	0.00	0.00	0.00	32.47	32.47	0.00
P047345	2001	CN-HUAI RIVER POLLUTION CONTROL	105.50	0.00	0.00	0.00	0.00	26.40	26.40	-2.01
P056596	2001	CN-Shijiazhuang Urban Transport	100.00	0.00	0.00	0.00	0.00	49.90	49.90	0.00
P056199	2001	CN-3rd Inland Waterways	100.00	0.00	0.00	0.00	0.00	15.97	8.81	0.00
P051859	2001	CN-LIAO RIVER BASIN	100.00	0.00	0.00	0.00	0.00	18.04	16.17	0.00
P042109	2000	CN-BEIJING ENVIRONMENT II	349.00	0.00	0.00	25.00	26.51	195.84	222.35	-2.57
P045910	2000	CN-HEBEI URBAN ENVIRONMENT	150.00	0.00	0.00	0.00	0.00	34.62	31.95	0.00
P049436	2000	CN-CHONGQING URBAN ENVMT	200.00	0.00	0.00	0.00	29.50	66.57	95.53	-2.94
P064924	2000	CN-GEF-BEIJING ENVMT II	0.00	0.00	0.00	25.00	0.00	19.90	25.00	5.81
P056424	2000	CN-Tongbai Pumped Storage	320.00	0.00	0.00	0.00	100.00	34.76	139.96	3.18
P058843	2000	CN-Guangxi Highway	200.00	0.00	0.00	0.00	19.70	3.37	23.07	3.37
P064730	2000	CN-Yangtze Dike Strengthening	210.00	0.00	0.00	0.00	0.00	71.10	71.10	6.43
P036953	1999	CN-Health IX	10.00	50.00	0.00	0.00	0.40	16.73	15.61	15.61
P042299	1999	CN-Tec Coop Credit IV	10.00	35.00	0.00	0.00	5.84	13.38	17.12	0.00
P038121	1999	CN-GEF-RENEWABLE ENERGY DEVELOPMENT	0.00	0.00	0.00	35.00	0.00	8.71	34.77	27.34
P051705	1999	CN-Fujian II Highway	200.00	0.00	0.00	0.00	0.00	15.20	15.20	10.46
P051856	1999	CN-Accounting Reform & Development	27.40	5.60	0.00	0.00	0.00	7.15	7.04	1.83
P036414	1998	CN-GUANGXI URBAN ENVMT	72.00	20.00	0.00	0.00	13.48	19.16	32.05	0.04
P003614	1998	CN-Guangzhou City Transport	200.00	0.00	0.00	0.00	20.00	47.99	67.99	47.99
P003566	1998	CN-BASIC HEALTH (HLTH8)	0.00	85.00	0.00	0.00	0.00	2.59	1.13	0.00
P003539	1998	CN-Sustainable Coastal Resources Dev.	100.00	0.00	0.00	0.00	2.06	15.28	17.34	15.28
P036405	1997	CN-Wanjiazhai Water	400.00	0.00	0.00	0.00	75.00	4.41	79.41	4.41
Total:			9,611.40	195.60	0.00	260.42	301.59	6,487.92	1,685.15	112.72

PEOPLE'S REPUBLIC OF CHINA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2002	ASIMCO	0.00	10.00	0.00	0.00	0.00	10.00	0.00	0.00
2006	ASIMCO	0.00	0.00	4.12	0.00	0.00	0.00	3.61	0.00
2005	BCCB	0.00	59.21	0.00	0.00	0.00	59.03	0.00	0.00
2003	BCIB	0.00	0.00	12.04	0.00	0.00	0.00	0.00	0.00
2006	BUFH	8.14	0.00	0.00	0.00	8.14	0.00	0.00	0.00
2005	Babei	0.00	5.00	0.00	0.00	0.00	5.00	0.00	0.00
	Babei Necktie	11.00	0.00	0.00	6.00	8.94	0.00	0.00	4.88
1999	Bank of Shanghai	0.00	21.76	0.00	0.00	0.00	21.76	0.00	0.00
2000	Bank of Shanghai	0.00	3.84	0.00	0.00	0.00	3.84	0.00	0.00
2002	Bank of Shanghai	0.00	24.67	0.00	0.00	0.00	24.67	0.00	0.00
2005	BioChina	0.00	3.70	0.00	0.00	0.00	3.13	0.00	0.00
2002	CDH China Fund	0.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00
2005	CDH China II	0.00	17.99	0.00	0.00	0.00	11.38	0.00	0.00
2006	CDH Venture	0.00	20.00	0.00	0.00	0.00	0.51	0.00	0.00
2005	CT Holdings	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00
2004	CUNA Mutual	0.00	10.53	0.00	0.00	0.00	0.00	0.00	0.00
2006	Capital Today	0.00	25.00	0.00	0.00	0.00	0.32	0.00	0.00
2005	Changyu Group	0.00	18.07	0.00	0.00	0.00	18.07	0.00	0.00
1998	Chengdu Huarong	3.36	3.20	0.00	3.13	3.36	3.20	0.00	3.13
2004	China Green Ener	20.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00
2004	China Re Life	0.00	0.27	0.00	0.00	0.00	0.27	0.00	0.00
1994	China Walden Mgt	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
2006	Chinasoft	0.00	0.00	15.00	0.00	0.00	0.00	10.00	0.00
2004	Colony China	0.00	15.31	0.00	0.00	0.00	9.29	0.00	0.00
2004	Colony China GP	0.00	0.84	0.00	0.00	0.00	0.49	0.00	0.00
2006	Conch	81.50	40.93	0.00	0.00	81.50	0.00	0.00	0.00
2006	Dagang NewSpring	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	Darong	10.00	0.24	0.00	8.00	6.67	0.24	0.00	5.33
2006	Deqingyuan	0.00	2.85	0.00	0.00	0.00	2.85	0.00	0.00
1994	Dynamic Fund	0.00	2.21	0.00	0.00	0.00	2.01	0.00	0.00
2007	Epure	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	Fenglin	17.64	0.00	6.00	13.47	13.64	0.00	6.00	12.53
2006	Fenglin HJ MDF	0.23	0.00	0.00	3.27	0.00	0.00	0.00	0.00
2005	Five Star	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00
2006	GDIH	50.85	0.00	0.00	0.00	50.85	0.00	0.00	0.00
2003	Great Infotech	0.00	1.73	0.00	0.00	0.00	1.03	0.00	0.00
2006	Hangzhou RCB	0.00	10.85	0.00	0.00	0.00	0.00	0.00	0.00
2005	HiSoft Tech	0.00	4.00	0.00	0.00	0.00	3.00	0.00	0.00
2006	HiSoft Tech	0.00	4.34	0.00	0.00	0.00	1.74	0.00	0.00
2004	IB	0.00	52.18	0.00	0.00	0.00	52.18	0.00	0.00
2004	Jiangxi Chenming	40.00	12.90	0.00	18.76	40.00	12.90	0.00	18.76

2006	Launch Tech	0.00	8.35	0.00	0.00	0.00	8.33	0.00	0.00
2001	Maanshan Carbon	5.25	2.00	0.00	0.00	5.25	2.00	0.00	0.00
2005	Maanshan Carbon	11.00	1.00	0.00	0.00	5.00	1.00	0.00	0.00
2005	Minsheng	15.75	0.00	0.00	0.00	7.00	0.00	0.00	0.00
2006	Minsheng & IB	25.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	Minsheng Bank	0.00	23.50	0.00	0.00	0.00	23.50	0.00	0.00
2005	Minsheng Bank	0.00	2.80	0.00	0.00	0.00	2.79	0.00	0.00
2001	NCCB	0.00	8.94	0.00	0.00	0.00	8.82	0.00	0.00
1996	Nanjing Kumho	0.00	3.81	0.00	0.00	0.00	3.81	0.00	0.00
2004	Nanjing Kumho	31.38	2.23	0.00	0.00	31.38	2.23	0.00	0.00
2006	Neophotonics	0.00	0.00	10.00	0.00	0.00	0.00	10.00	0.00
2001	New China Life	0.00	5.83	0.00	0.00	0.00	5.83	0.00	0.00
2005	New Hope	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
1995	Newbridge Inv.	0.00	0.22	0.00	0.00	0.00	0.22	0.00	0.00
2005	North Andre	8.00	6.74	0.00	0.00	0.00	4.25	0.00	0.00
2003	PSAM	0.00	2.01	0.00	0.00	0.00	0.00	0.00	0.00
	RAK China	13.00	0.00	0.00	0.00	13.00	0.00	0.00	0.00
2006	Renaissance Sec	0.00	0.00	20.04	0.00	0.00	0.00	0.00	0.00
2006	Rongde	0.00	35.00	0.00	0.00	0.00	31.38	0.00	0.00
	SAC HK Holding	0.00	1.60	0.00	0.00	0.00	1.00	0.00	0.00
2003	SAIC	12.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00
2006	SBCVC	0.00	20.00	0.00	0.00	0.00	2.00	0.00	0.00
2000	SEAF SSIF	0.00	3.74	0.00	0.00	0.00	3.37	0.00	0.00
	SH Keji IT	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	SHCT	38.18	0.00	0.00	28.64	29.04	0.00	0.00	21.78
2004	SIBFI	0.14	0.07	0.00	0.00	0.00	0.07	0.00	0.00
1998	Shanghai Krupp	19.25	0.00	0.00	36.75	19.25	0.00	0.00	36.75
2006	Shanshui Group	50.00	5.50	2.20	0.00	50.00	5.50	0.00	0.00
1999	Shanxi	12.61	0.00	0.00	0.00	12.61	0.00	0.00	0.00
	SinoSpring	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
	Stora Enso	20.83	0.00	0.00	4.17	11.00	0.00	0.00	0.00
2005	Stora Enso	29.17	0.00	0.00	20.83	0.00	0.00	0.00	0.00
2006	Stora Enso	50.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00
2006	TBK	4.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
2006	VeriSilicon	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
	Wanjie High-Tech	9.89	0.00	0.00	0.00	9.89	0.00	0.00	0.00
2004	Wumart	0.00	1.62	0.00	0.00	0.00	1.62	0.00	0.00
2003	XACB	0.00	17.95	0.00	0.00	0.00	0.64	0.00	0.00
2004	Xinao Gas	25.00	10.00	0.00	0.00	25.00	10.00	0.00	0.00
2006	Zhejiang Glass	50.00	24.96	0.00	18.00	0.00	0.00	0.00	0.00
2003	Zhengye-ADC	10.43	0.00	0.00	4.87	10.43	0.00	0.00	4.87
2002	Zhong Chen	0.00	4.78	0.00	0.00	0.00	4.78	0.00	0.00
2006	Zhongda_Yanjin	21.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total portfolio:		733.58	577.30	181.40	340.89	470.95	371.06	29.61	108.03

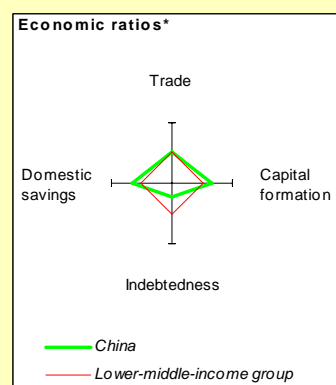
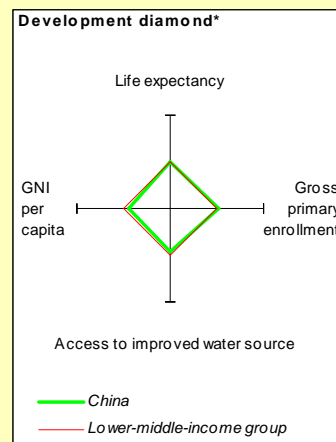
FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic.
2002	SML	0.00	0.00	0.00	0.00
2004	NCFL	0.00	0.00	0.02	0.00

2007	Xinao CTC	0.04	0.01	0.00	0.14
2004	China Green	0.00	0.00	0.01	0.00
2006	Launch Tech	0.01	0.00	0.00	0.00
2005	MS Shipping	0.00	0.01	0.00	0.00
2003	Peak Pacific 2	0.00	0.01	0.00	0.00
Total pending commitment:		0.05	0.03	0.03	0.14

Annex 14: Country at a Glance

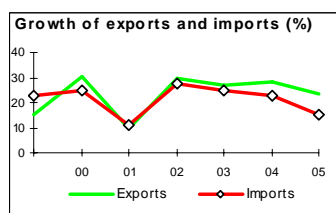
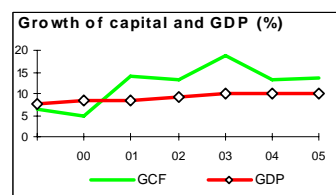
PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

POVERTY and SOCIAL		China	East Asia & Pacific	Lower-middle-income
2005				
Population, mid-year (millions)		1304.5	1885	2,475
GNI per capita (Atlas method, US\$)		1,740	1,627	1,918
GNI (Atlas method, US\$ billions)		2,269.8	3,067	4,747
Average annual growth, 1999-05				
Population (%)		0.7	0.9	1.0
Labor force (%)		1.0	1.3	1.4
Most recent estimate (latest year available, 1999-05)				
Poverty (% of population below national poverty line)		..	..	..
Urban population (% of total population)		40	41	50
Life expectancy at birth (years)		71	70	70
Infant mortality (per 1,000 live births)		26	29	33
Child malnutrition (% of children under 5)		8	15	12
Access to an improved water source (% of population)		77	79	82
Literacy (% of population age 15+)		91	91	89
Gross primary enrollment (% of school-age population)		118	115	114
Male		118	116	115
Female		117	114	113
KEY ECONOMIC RATIOS and LONG-TERM TRENDS				
	1985	1995	2004	2005
GDP (US\$ billions)	304.9	728.0	1,931.7	2,228.9
Gross capital formation/GDP	37.8	39.3	38.7	..
Exports of goods and services/GDP	10.0	23.1	34.0	..
Gross domestic savings/GDP	33.6	41.5	41.2	..
Gross national savings/GDP	34.0	40.1	42.2	..
Current account balance/GDP	-3.8	0.8	3.6	5.0
Interest payments/GDP	0.2	0.6	0.2	..
Total debt/GDP	5.5	16.2	12.9	..
Total debt service/exports	7.7	8.6	3.5	..
Present value of debt/GDP	..	..	12.5	..
Present value of debt/exports	..	..	35.7	..
(average annual growth)				
GDP	9.7	8.8	10.1	9.9
GDP per capita	8.2	8.0	9.4	9.2
Exports of goods and services	9.4	19.7	28.4	23.6



STRUCTURE of the ECONOMY

	1985	1995	2004	2005
(% of GDP)				
Agriculture	28.4	19.8	13.1	..
Industry	43.1	47.2	46.2	..
Manufacturing	34.9	..	..	..
Services	28.5	33.1	40.7	..
Household final consumption expenditure	53.2	47.5	48.5	..
General gov't final consumption expenditure	13.2	11.0	10.2	..
Imports of goods and services	14.1	20.9	31.4	..
(average annual growth)				
Agriculture	4.2	3.3	6.3	5.0
Industry	12.8	9.9	11.1	10.8
Manufacturing	10.0	..	..	..
Services	9.5	9.7	9.8	10.1
Household final consumption expenditure	10.2	5.7	1.1	..
General gov't final consumption expenditure	9.4	8.9	6.8	..
Gross capital formation	9.4	10.1	13.0	13.5
Imports of goods and services	10.3	17.4	22.5	15.3



Note: 2005 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE

Domestic prices

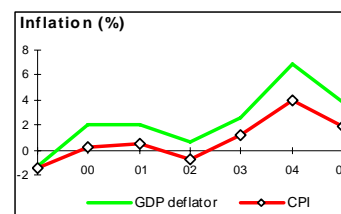
(% change)

	1985	1995	2004	2005
Consumer prices	..	16.9	4.0	18
Implicit GDP deflator	10.1	13.7	6.9	3.8

Government finance

(% of GDP, includes current grants)

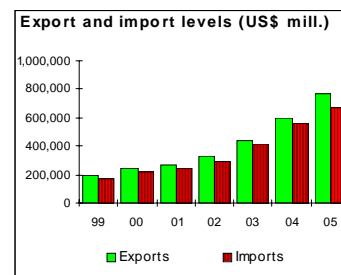
	1985	1995	2004	2005
Current revenue	28.0	10.8	16.6	17.5
Current budget balance	7.3	0.6	1.7	2.0
Overall surplus/deficit	0.0	-15	-15	-13



TRADE

(US\$ millions)

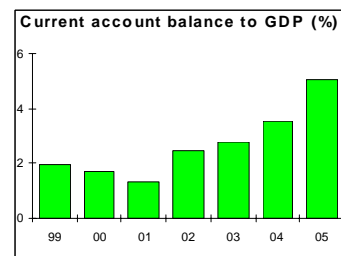
	1985	1995	2004	2005
Total exports (fob)	27,350	148,780	593,369	771,511
Food	3,803	9,954	18,870	..
Mineral fuels, lubricants, and related materials	7,132	5,332	14,476	..
Manufactures	13,522	127,295	552,818	727,191
Total imports (cif)	42,252	132,084	561,423	674,331
Food	1,553	6,132	9,166	..
Fuel and energy	172	5,127	48,003	..
Capital goods	16,239	52,642	252,624	230,369
Export price index (2000=100)	52	118	102	106
Import price index (2000=100)	74	107	112	119
Terms of trade (2000=100)	70	110	91	88



BALANCE of PAYMENTS

(US\$ millions)

	1985	1995	2004	2005
Exports of goods and services	30,489	167,974	655,827	843,537
Imports of goods and services	43,092	151,882	606,543	746,150
Resource balance	-12,602	16,092	49,284	97,386
Net income	841	-11,774	-3,523	4,668
Net current transfers	243	1,434	22,898	10,000
Current account balance	-11,518	5,752	68,659	112,055
Financing items (net)	6,096	16,711	137,705	98,000
Changes in net reserves	5,422	-22,463	-206,364	-210,055



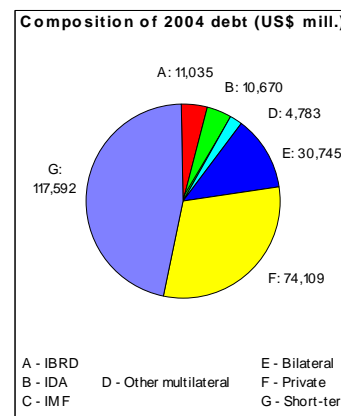
Memo:

Reserves including gold (US\$ millions)	..	80,277	622,945	826,303
Conversion rate (DEC, local/US\$)	2.9	8.4	8.3	8.2

EXTERNAL DEBT and RESOURCE FLOWS

(US\$ millions)

	1985	1995	2004	2005
Total debt outstanding and disbursed	16,696	118,090	248,934	..
IBRD	498	7,209	11,035	11,140
IDA	431	7,038	10,670	9,741
Total debt service	2,478	15,066	23,657	..
IBRD	26	810	1,054	1,139
IDA	4	63	264	296
Composition of net resource flows				
Official grants	117	330	381	..
Official creditors	1,117	7,902	16	..
Private creditors	2,867	5,013	7,970	..
Foreign direct investment (net inflows)	1659	35,849	54,936	..
Portfolio equity (net inflows)	0	0	10,923	..
World Bank program				
Commitments	1092	3,148	1285	..
Disbursements	565	2,269	1,188	1,131
Principal repayments	0	364	999	1,004
Net flows	565	1,905	190	127
Interest payments	29	509	319	430
Net transfers	536	1,396	-130	-303



Note: This table was produced from the Development Economics LDB database.

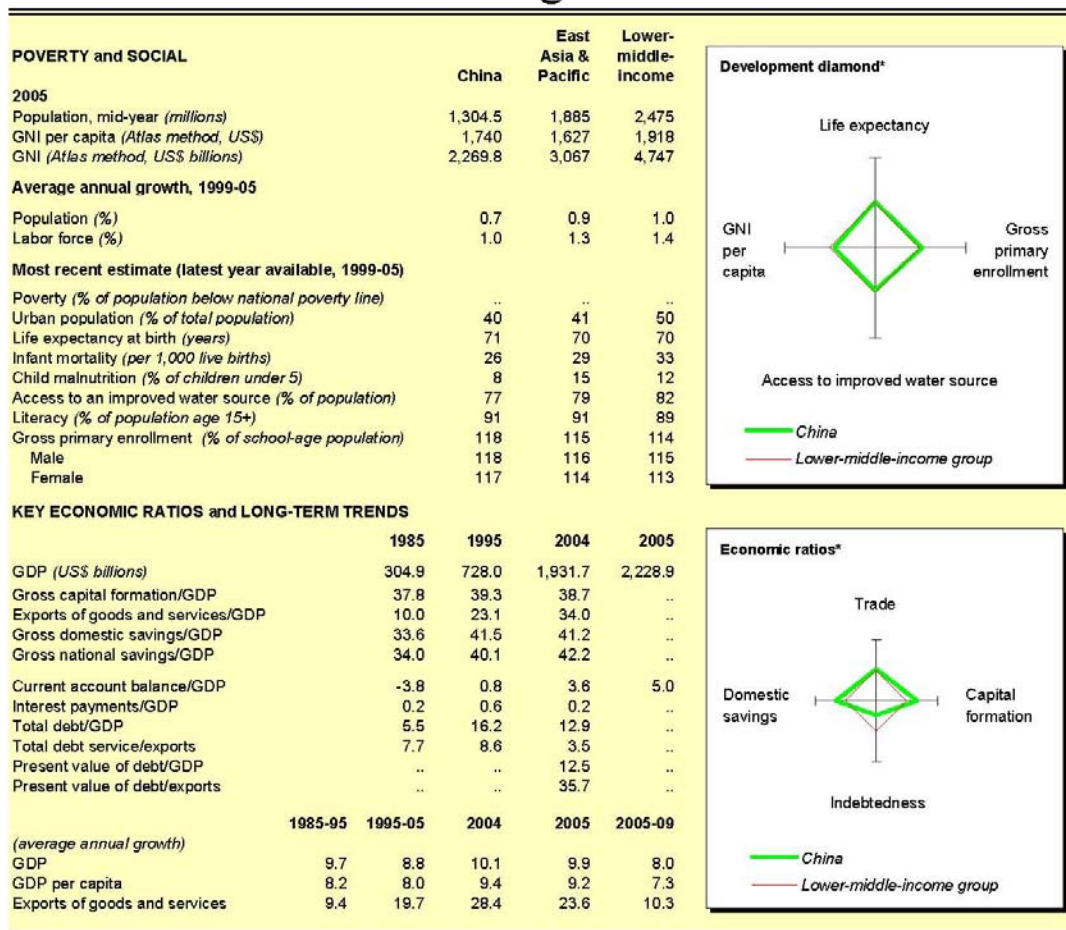
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Annex 14: Country at a Glance

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

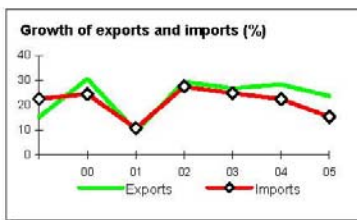
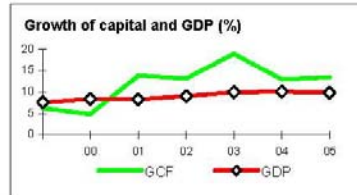
China at a glance

8/12/06



STRUCTURE of the ECONOMY

	1985	1995	2004	2005
(% of GDP)				
Agriculture	28.4	19.8	13.1	..
Industry	43.1	47.2	46.2	..
Manufacturing	34.9	..	..	..
Services	28.5	33.1	40.7	..
Household final consumption expenditure	53.2	47.5	48.5	..
General gov't final consumption expenditure	13.2	11.0	10.2	..
Imports of goods and services	14.1	20.9	31.4	..
(average annual growth)				
Agriculture	4.2	3.3	6.3	5.0
Industry	12.8	9.9	11.1	10.8
Manufacturing	10.0	..	..	..
Services	9.5	9.7	9.8	10.1
Household final consumption expenditure	10.2	5.7	1.1	..
General gov't final consumption expenditure	9.4	8.9	6.8	..
Gross capital formation	9.4	10.1	13.0	13.5
Imports of goods and services	10.3	17.4	22.5	15.3

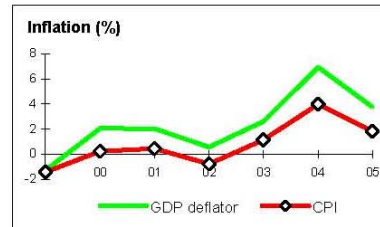


Note: 2005 data are preliminary estimates.

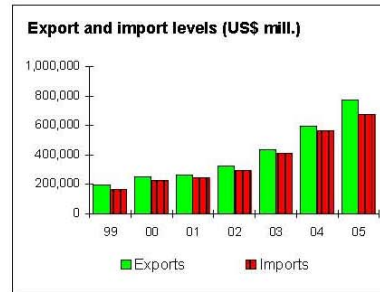
* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

PRICES and GOVERNMENT FINANCE

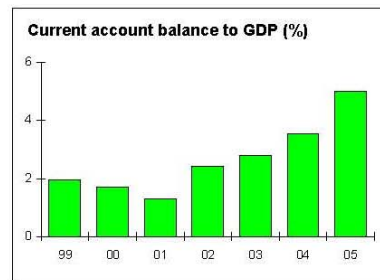
	1985	1995	2004	2005
Domestic prices				
(% change)				
Consumer prices	..	16.9	4.0	1.8
Implicit GDP deflator	10.1	13.7	6.9	3.8
Government finance				
(% of GDP, includes current grants)				
Current revenue	28.0	10.8	16.6	17.5
Current budget balance	7.3	0.6	1.7	2.0
Overall surplus/deficit	0.0	-1.5	-1.5	-1.3

**TRADE**

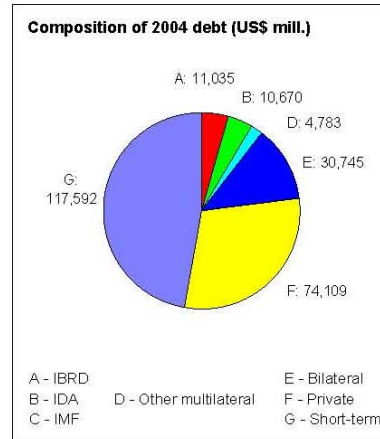
	1985	1995	2004	2005
(US\$ millions)				
Total exports (fob)	27,350	148,780	593,369	771,511
Food	3,803	9,954	18,870	..
Mineral fuels, lubricants, and related materie	7,132	5,332	14,476	..
Manufactures	13,522	127,295	552,818	727,191
Total imports (cif)	42,252	132,084	561,423	674,331
Food	1,553	6,132	9,156	..
Fuel and energy	172	5,127	48,003	..
Capital goods	16,239	52,642	252,624	230,369
Export price index (2000=100)	52	118	102	106
Import price index (2000=100)	74	107	112	119
Terms of trade (2000=100)	70	110	91	88

**BALANCE of PAYMENTS**

	1985	1995	2004	2005
(US\$ millions)				
Exports of goods and services	30,489	167,974	655,827	843,537
Imports of goods and services	43,092	151,882	606,543	746,150
Resource balance	-12,602	16,092	49,284	97,386
Net income	841	-11,774	-3,523	4,668
Net current transfers	243	1,434	22,898	10,000
Current account balance	-11,518	5,752	68,659	112,055
Financing items (net)	6,096	16,711	137,705	98,000
Changes in net reserves	5,422	-22,463	-206,364	-210,055
Memo:				
Reserves including gold (US\$ millions)	..	80,277	622,945	826,303
Conversion rate (DEC, local/US\$)	2.9	8.4	8.3	8.2

**EXTERNAL DEBT and RESOURCE FLOWS**

	1985	1995	2004	2005
(US\$ millions)				
Total debt outstanding and disbursed	16,696	118,090	248,934	..
IBRD	498	7,209	11,035	11,140
IDA	431	7,038	10,670	9,741
Total debt service	2,478	15,066	23,657	..
IBRD	26	810	1,054	1,139
IDA	4	63	264	296
Composition of net resource flows				
Official grants	117	330	381	..
Official creditors	1,117	7,902	16	..
Private creditors	2,867	5,013	7,970	..
Foreign direct investment (net inflows)	1,659	35,849	54,936	..
Portfolio equity (net inflows)	0	0	10,923	..
World Bank program				
Commitments	1,092	3,148	1,285	..
Disbursements	565	2,269	1,188	1,131
Principal repayments	0	364	999	1,004
Net flows	565	1,905	190	127
Interest payments	29	509	319	430
Net transfers	536	1,396	-130	-303



The World Bank Group: This table was prepared by country unit staff; figures may differ from other World Bank published data.

8/12/06

Annex 15: Incremental Cost Analysis

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

Overall approach

The proposed project seeks to effect a paradigm shift in the way that urban transport and land-use policies, measures and investment plans are developed and implemented in China, in order to preserve and enhance accessibility, while facilitating and encouraging mobility choices that are less energy intensive than those fostered by current urban land-use planning and transport systems in China.

This project is consistent with the objectives of the Global Environment Facility Operational Program 11 on “Promotion of Environmentally Sustainable Transport”, and is consistent with the GEF climate change strategic priority related to Sustainable Transport is defined in the GEF Business Plan for FY 2007. Specifically, the project would support studies and pilot interventions (a) to integrate urban land-use and transport planning; (b) induce sustainable transport policies, and programs in Chinese cities that contribute to a long-term modal shift to more efficient modes of transport; (c) for targeted research for environmental assessment (both local and global) of transport and land-use measures; (d) to pursue political dialogue engaging different actors dealing with transport, land-use, and environment matters at all levels of government; (e) to foster a common approach to sustainable transport, articulating land-use planning, and air quality policies; and (v) to create a network of Chinese cities to allow sharing of regional experiences, enhance the analytical tools available at the institutional level, and make them available to all interested cities.

The project has two key components: a national component and a demonstration cities component. Both are critical for effecting a paradigm shift from reactive to proactive transport and land-use planning. The former is intended to facilitate an appropriate national enabling environment, while the latter intends to implant catalytic examples in a variety of Chinese cities throughout the country.

Baseline scenario

The baseline scenario assumes that governments at both the national and local levels will need to address conditions that will increasingly be perceived as a “crisis” – worsening congestion, lost productivity in urban areas, and loss of access for marginalized populations. Indeed, the perception of a crisis with these characteristics is already fairly common in large cities such as Beijing and Shanghai; in the baseline scenario, such a characterization will increasingly apply to secondary and medium sized cities as well.

At the **national level**, response to the urban transport problems would be piecemeal and ineffectual.

- *Continued decentralization with limited influence of the Central Government.* The existing trend of governmental decentralization in transport investment decision-making and funding will continue. Individual cities will be left fully responsible for urban transport investments, with little effective oversight from Central Government. Development of a national framework would languish, and there would be no mechanism

to translate the statements of support the national government has made toward public transport into concrete actions. Nor would there be a national program of technical assistance or financing to cities that wanted to implement more sustainable transport practices.

- *Very little effort and coordination across Central Government agencies.* While individual central government agencies may engage in oversight of particular high profile issues, no unified, coordinated national effort on urban transport, in a manner that comprehensively influences GHG emissions, will be undertaken. The decentralized approach to policy implementation discussed above will leave the national government without the legal and strategic framework to guide or oversee investments from a technical perspective. Rather, particular agencies would focus on particular aspects of urban transport symptoms – the State Environmental Agency would address air quality, the Public Security agency would concern itself with safety, the NDRC with oil security, and perhaps the Ministry of Land Resources might be concerned with the rate of land consumption at the urban fringe – but any solutions thus identified would likely not have any intentional or consistent impact on GHG emissions. The effectiveness of any efforts that might otherwise emerge from such a system to reduce fuel use would both be hampered lack of coordination across different governmental entities and confounded by parallel measures that intentionally or otherwise would increase private car use.

At the **local level**, efforts to address urban transport policy would continue to occur in a reactive mode – that is, in response to observed levels of congestion and deteriorating air quality. These efforts may meet with some modest successes in the short-run, but their long-run effectiveness or sustainability would be questionable.

- *New road construction and low-density suburban development will continue to drive urban transport trends.* Cities would continue to make investment decisions driven primarily by a growth and competitiveness agenda and as in the past two decades, most cities would continue to focus on building new roads and grow outward creating sprawl. As has been the experience the world over, this new road construction will inevitably be outpaced by increased demand for auto use, and congestion would increase. A few cities, in a crisis mode (as Beijing and Shanghai are presently doing), may begin to prioritize public transport development, but too little and too late. International experience has shown that once a pattern of land-use and personal transport use has been established, it is difficult to undo.
- *Effectiveness of attempts to coordinate land-use and transport planning would be hindered* by the lack of adequate regional institutional frameworks combined with financial incentives for cities to consume rural land at the urban periphery. Public transport ridership is particularly vulnerable in the face of low-density suburban developments: international experience has shown that it is very difficult for public transport to provide a competitive alternative for dispersed suburban trips, once tripmakers have access to personal modes of transport.
- *Investments in road safety and traffic management would occur, but without an emphasis on facilitating public transport and non-motorized vehicle and pedestrian movements.* As a result, non-motorized modes would continue to decline, ultimately getting completely marginalized.

- *Capital investment in public transport may focus on ‘metro’ development*, though it will be constrained by the availability of finance. In the absence of good demonstrations illustrating the value of lower-cost high-impact transit investments such as Bus Rapid Transit systems, any capital investment on public transport would be constrained. As a result, existing public transport would further lose competitiveness. Buses would be slowed down by congestion, which would also adversely impact the economics of bus operations (slower buses leading to lower ridership and revenues but higher operating costs for the same level of service leading to a negative spiral).
- *Demonstration city projects may continue, with higher technical risk and less replication potential.* It is likely that even without GEF co-financing, many of the selected demonstration cities will implement some variation of their planned projects. This is particularly the case in Liaoning, Urumqi, Guangzhou and Xian, where the Bank is already directly involved in financing projects. In the small cities which have planned integrated transit/NMT improvements, in the absence of the GEF projects, it is likely that the cities will implement some ad-hoc measures, with limited impact and little demonstration potential. In the case of Nanchang where a transit-oriented development component is planned, the discussions during preparation have already increased the scope of design considerations the city officials are considering. In the absence of GEF financing, the city will likely go ahead with ToD plans, but will likely not get the benefits of international experience and expertise on the issue. The implemented plans may have some impact, but will not get the range of review, oversight and expertise that GEF financing will provide. The same is true for the different bus priority and BRT schemes, the tendency will be to implement them quickly and to focus on only the infrastructure. The international experience reinforces the importance of a systems approach to effectively design high quality BRTs. Without GEF, it is likely that many of the BRT’s would yield not much more than a busway – with some impact but less than a high quality BRT provides. In summary, the proposals are innovative, very much on the cutting edge of Chinese (and in some cases international) practice, and in the absence of GEF co-financing, there would be significant technical risk that the projects would not be designed or implemented in a manner that maximizes their local and global benefits.
- *Cities will continue to develop masterplans and projects in the same manner as before.* Despite the Central Government’s urging cities to develop plans and projects that provide priority to public transport, it is likely that in the baseline, cities will continue to produce plans and projects that are essentially similar to what they are currently doing. In the absence of appropriate detailed guidance in the form of updated standards, detailed guidelines and manuals, the plans and projects will not reflect the Chinese National Government’s stated focus of promoting public transport.

Box 1. Component 1, baseline and GEF scenarios, by Task

This Box maps the above points onto the tasks of the national component.

Task 1A. Development of a National Urban Transport Strategy

Baseline Activities. In the baseline, there will be no comprehensive, integrated, sustainable urban transport strategy at the national level. Although there is growing awareness of the need to review the appropriate role of different levels of government and civil society in urban transport planning, in the baseline, it is likely that unsustainable current practices and activities will continue. As at present, cities will focus on building more roads, planning and programming of investments will remain an exclusively local preserve, different national agencies will work in an uncoordinated fashion, often at odds with each other, and national strategy of different ministries will diverge on issues such as auto industry, oil, finance, and land acquisition.

Some corrective actions have been taken. On June 25, 2004, China's Premier Wen Jiabao gave supportive comment and instruction on the "Report on Giving Priority to Develop Urban Public Transport" delivered by the Ministry of Construction (MoCn). On September 23, 2005, the State Council transmitted "Opinion on Giving Priority to Develop Urban Public Transport" jointly delivered by MoCn, NDRC, MOST, MPS, MOF and MLR. On December 1st, 2006, the MoCn together with the NDRC, MOF, MOLSS (Ministry of Labor and Social Security), issued the "Opinion on Several Economic Policies of Giving Priority to Develop Urban Public Transport".

These recent actions are encouraging, but rare and not nearly enough. They are sporadic and non-integrated. There continues to be a lack of concerted national program to systematically formulate a comprehensive set of urban transport development strategy meeting sustainability goals. Even though individual ministries, departments, and sectors each within their administrative boundaries are taking finite steps to improve the urban environment, their independent benefits are insignificant and the progress for change is slow. It is clear that there still is a lack of integrated strategy for the development of urban transport policies and regulations.

To speed up the process and develop a set of national strategy on environmentally sustainable urban transport, incremental activities and resources are urgently required to mitigate the rising negative impacts of urban transport development on the local and global environment.

Baseline Cost. No baseline cost programmed.

Task 1B. Training and Capacity Building Efforts at the National Level

Baseline Activities. The Ministry of Construction (MoCn) is responsible for technical issues relating to urban transport. However, its role in the baseline is limited by budget, responsibility and capacity. The Ministry presently issues guidelines, but most of them are on issues related to physical standards. In the Baseline, domestic capacity issues and resources constraints will limit MoCn's activities to technical standards for physical design. For planning, the MoCn will continue its present practice of suggesting aggregate goals without providing guidelines on implementation.

A limited number of planning guidelines have been in existence but their contents and requirements are outdated and do not match the current demand of urban transport sustainable development in China. They also lag far behind advanced international standards.

The baseline status of those planning guidelines included in the project scope of this sub-component activity are listed below:

- Code for Planning and Design of Urban Road Transport:
Existing, issued in 1995 and not amended since, to be amended and renamed to Code for Planning and Design of Urban Transport.
- Code for Urban Road Design:
Existing, issued in 1991 and not amended since, to be amended.
- Code for Planning and Design of Urban Road Crossing:
New, being developed, with partial funding from MoCn.
- Technical Standards for Evaluation of Construction Project Traffic Impacts:
New, being developed, with partial funding from MoCn.
- Code for Planning and Design of Urban Parking Facility:
New, being developed, with partial funding from MoCn.
- Code for Planning and Design of Urban Public Transport:
New, to be developed.
- Code for Planning and Design of Urban Rail Transport:
New, to be developed.
- Code for Planning and Design of Urban Passenger Transport Interchange Station and Plaza Area:
New, to be developed.
- Code for Planning and Design of Bicycle System:
New, to be developed.
- Code for Planning and Design of Pedestrian System:
New, to be developed.
- Technical Guidelines for Urban Transport Planning:
New, to be developed.
- Technical Guidelines for Urban Public Transport Planning:
New, to be developed.
- Measures for Urban Transport Planning Evaluation Procedure and Review:
New, to be developed.
- Measures for Qualification Authentication and Administration of Registered Transport Engineers:
New, to be developed.

In the baseline, capacity building training activities to address urban transport issues would increase across the country, but with a focus on techniques, models, and intelligent transport system technologies. Training activities are a part of the annual plans of the ministries and commissions of the State, including the MoCn, MOF, NDRC, MOST, MOE and their subordinate departments. However, these training activities are typically not organized with an overall program or extended scope. There is a lack of monitoring

and evaluation associated with these activities. Their target audience is also limited.

The annual conferences held in recent years by professional societies and universities had technical sessions related to sustainable transport. These include those organized by the Urban Planning Society of China, China Association of Mayors, China Communications & Transportation Association, China Highway and Transportation Society, China Railway Society, China Urban Public Transport Association, Urban Public Transport Society of China Civil Engineering Society, Tongji University, etc. It is expected that related sessions will continue to be a part of these annual activities in the near future.

As China has a large number of cities in different sizes and geographic locations, the gap in training fund and activities is rather big. Additional funding and technical assistance will not conflict with the routine projects of ministries and commissions. On the contrary, it can further expand the capabilities of the training audience.

At the city level, cities will continue to develop masterplan updates and projects much as they have in the past, without real changes that would prioritize public transport.

Baseline Cost. Baseline cost for developing new urban transport planning guidelines is estimated at US\$60,000. The cost for sponsoring sustainable urban transport training activities during the duration of the proposed GEF project is estimated at US\$1,000,000. Cities will also incur costs in the baseline of updating their masterplans and developing projects. While this cost for cities across the country will be very high (hundreds of millions), a conservative calculation of this cost for the cities that the Bank and project agencies are working with is US\$20 million.

Task 1C. Dissemination and awareness raising activities

Baseline Activities. The urban transport database of each city, if available, is kept by either the city's planning or transport department, the local planning institute, or the city's transport consultant. These databases are not available for general access. There is no comprehensive consolidated multi-city database on urban transport in existence in China.

Information on urban transport of each city is generally available only to the city's planning and transport departments, the local planning institute, and the city's planning and transport consultants. Very limited information is available for general access. There is no comprehensive information dissemination platform on sustainable urban transport in existence in China.

Even in the absence of the proposed GEF project, the urban transport and urban planning professions in China would continue to improve public awareness of sustainable urban transport.

In particular, to promote sustainable development of urban transport, the MoCn has initiated the nationwide activities of "China Public Transport Week" (CPTW) and "Car Free Day". The practice will widely promote the goals and significances of giving priority to public transport, urging the municipal governments to enhance the construction of public transport

and to encourage the public into using mass transit.

On November 27, 2006, the MoCn invited cities nationwide to participate in the practice of the CPTW. Beginning in 2007, September 16~22 is designated as “Public Transport Week”, and September 22 as “Car Free Day” in each year. By the end of 2006, agreements from 103 cities have been submitted to participate in the practice of CPTW and “Car Free Day”. They promise to publicize the practice, and improve virtually public transport.

To encourage cities nationwide to active participate in the meaningful practice, cooperation with news media such as televisions, broadcastings, websites, publications and magazines should be conducted to strengthen publicity on the practice. Furthermore, during the preparatory period, grassroots activists for the practice should be trained in individual cities to achieve the aimed purpose.

In accordance with the Construction Ministry’s vision, each year’s CPTW should include the implementation of a new practical measure, such as increasing mass transit lines, improving mass transit network, improving transit facilities (reserved lines for mass transit, bicycle lanes, sidewalk, parking lots for public buses and bicycles, etc.), improving the conditions of transit centers of mass transit, and implementing transport demand management.

However, funding and resources are limited to realized all these activities envisioned as well as support the 100+ participating cities on an annual basis.

Baseline Cost. Baseline cost for sponsoring public awareness campaigns on sustainable urban transport during the duration of the proposed GEF project is estimated at US\$1,500,000.

Activity 1D: Monitoring and Evaluation

Baseline Activities. In the absence of the proposed GEF project, this activity would not be undertaken.

Baseline Cost. No baseline cost programmed.

GEF scenario

The GEF scenario aims to shift the paradigm of how governments at the national and local levels approach urban transport policy, in order to move from a reactive to a proactive mode that is better able to incorporate global climate and other long-term strategic concerns.

At the **national level**, the GEF scenario is expected to lead to:

- *Changes in the manner urban transport investments are planned, programmed and financed to reflect global and local sustainability concerns.* A national sustainable urban transport strategy and set of implementing policies, regulations and laws would be prepared that would provide incentives to cities to manage travel demand without increasing GHG emissions, promote public transport and the use of non-motorized transport and reduce (eliminate) current incentives to over-consume land, and favor auto-centered investments.
- *Development of mechanisms to facilitate government oversight of urban transport investments to align local actions with national priorities.* A key expected outcome is the adoption of a financial mechanism such as a matching grant system (that would be executed by MoF), a demonstration program or a financially supported national policy (that would be executed by NDRC and/or Ministry of Construction) that could be executed at the national level. This would create a direct incentive at the local level to formulate policies and investments aligned with national priorities prioritizing people-centered, public transport oriented solutions.
- *Coordinated action and incorporation of global climate-change concerns in the policy dialogue.* As discussed earlier policy initiatives currently are almost exclusively driven by single issue local and domestic concerns. Coordination across agencies, and the incorporation of global climate-change concerns could lead to fundamentally different (and more desirable) outcomes. In some cases there are common interests such as sustainable transport's interest in compact cities and the Government's interest in limiting rural land conversion that have not been fully realized. In general, spatial growth around strong public transport corridors, pioneered in cities such as Curitiba, Singapore, and Stockholm, consume much less land than prevalent Chinese models of circumferential 'ring roads' epitomized by Beijing. In the GEF scenario, the national strategy will identify the linkage between different forms of spatial expansion and the implications for urban transport. It will provide clear guidance to the Ministry of Land Resources on preferred spatial growth structures from a transport perspective. In other cases there is less alignment: such as the twin priorities of growing the auto industry and prioritizing public transport. The auto industry is considered a 'pillar' industry driving economic development. While that is not expected to change, coordination of efforts on oil security, local environment, congestion and safety, will provide guidance on the future direction of the auto industry and policies for auto ownership and use that will yield comprehensive solutions consistent with global climate concerns.
- *Development of masterplans, project designs, policies and plans at the local level that effectively promote public transport.* Once detailed guidelines, manuals and standards are available to local cities, cities will be able to incorporate the knowledge developed in that material to produce plans and projects that effectively promote public transport and non-

motorized transport. The dissemination plans and associated tools (such as databases and evaluation activities) will increase the awareness of the value of sustainable solutions and create an enabling environment for future implementation.

At the **local level**, the GEF scenario will lead to:

- *Successful demonstration projects.* All the demonstration city projects, would maximize both their GHG emissions reduction potential and their demonstration effect. The GEF intervention – which facilitates (i) the introduction of international experts that bring international experience and good practice to bear; (ii) a technical support and review process; (iii) a stronger emphasis on public consultation that the cities would otherwise have undertaken; (iv) a stronger emphasis on acknowledging and dealing with institutional hurdles to successful implementation than the cities would otherwise have made; and (v) a stronger emphasis on structured monitoring and evaluation – significantly lowers the technical risk associated with project success.
- *Leading to replication.* As a result of the successful demonstrations, and the dissemination and awareness-raising activities, the true benefits of the CUTPP are expected to be in the form of replication. Indeed, the demonstration cities component has been designed to maximize through the replication it triggers. The replication would be expected to lead to more cities adopting proactive approaches to urban transport policy, based on integrated sustainable visions rather than solving or heading off perceived single-dimension problems such as congestion or air quality. As a result, emphasis will shift from road capacity toward system management, from stand-alone transport solutions toward integrated transport and land-use development in a growth management framework, from delay for motorists to the overall experience of people in the city, and from mobility to accessibility. In particular, relatively low-cost, bus-based, integrated public transport solutions would gain national prominence and become a standardized pillar of cities' efforts to improve public transport function, rather than the exception, as a result of the high-visibility pilot projects.
- *Enhanced strategic focus for future Bank role in financing urban transport in China.* It is worth noting that just the project preparation phase of CUTPP has already transformed and elevated the Bank's intervention in the sector. That process has provided a platform for dialogue with all relevant national agencies and key municipal governments. It has provided an opportunity for close coordination with many different divisions of NDRC, the agency ultimately responsible for the strategic direction of the Bank portfolio in China. As a result of extensive discussions during preparations, key officials in NDRC have signaled their desire to shift the focus of the Bank intervention in the sector primarily towards support for public transport. Further, the demonstration cities (and others interested in replication) provide a pipeline of future public-transport oriented investment projects that would support this strategic objective.

Global Benefits Analysis

Incremental benefits and costs are shown in matrix form on the following page. Included in the table are quantified direct CO₂ emissions reductions from the pilot city programs. The methodology for this quantification is presented in the next section.

The global environmental benefits of the **national component** are substantial but difficult to quantify. The Bank's previous analysis has suggested that current institutions and the incentives they reflect is the biggest barrier to the development of sustainable urban transport systems in cities today. The national component, and in particular the strategy is the first concerted effort by National Agencies to systematically reexamine the role of the national government in urban transport in light of the experience internationally and China's national interest in the manner in which city's are structured and operated. The Chinese experience with the development of the expressway system, as well as the international experience suggests that the national government can play an important role in facilitating a broad-based inclusive and systematic process which is not completely overtaken by local leadership's short-term interest in high profile visible investments. A shift to a more fiscally, socially and environmentally prudent *process* would be expected to have an impact on the most carbon unfriendly 'big infrastructure'; ring roads, bridges often built before the demand justifies them, but instrumental in spurring development that is inherently auto-centric. If the strategy were to lead to the adoption of financial mechanisms to support public transport oriented high impact demonstrations (such as the Federal Transit Administration's 'New Starts' program in the United States or India's Jawaharlal Nehru Urban Renewal Mission) then the carbon benefits would be compounded and significant.

In addition the national Ministry of Construction (the line ministry in charge of urban transport issues) is starting to put into place a national campaign to 'promote public transport.' Much of the national component has been designed to support this campaign with actions to (i) supplement the high-quality policy guidance provided by the Ministry with more detailed guidelines that would facilitate the development of more effective facilities and systems; and (ii) training, capacity building and awareness raising activities that support and disseminate best practices and help establish a public transport oriented culture.

In the case of the **demonstration city projects**, only direct emission saving from specific project concepts being proposed for GEF co-financing have been quantified. These benefits, while substantial, are minor relative to the total GHG emission savings expected from CUTPP. Indeed, the demonstration cities component has been designed to maximize emissions avoided through replication. The selection process has enhanced this effect; being selected as a 'demonstration city' associated with this project – by a combination of national agencies led by Ministry of Finance, Ministry of Construction and the National Development and Reform Commission – has created visibility in China to participants that is at least as important as the co-financing GEF is providing. In a workshop in Beijing held prior to this submission, 152 officials from the demonstration cities, including nine Mayors, came to discuss the city proposals with the national agencies and the Bank. The GEF co-financing alone does not explain this strong level of political interest and financial commitment. These officials emphasized their interest and suitability in being chosen for demonstration status in their presentations and discussions during the workshop, aware of the strong tradition in China for cities to learn from their peers. If replicated among China's roughly 450 other cities with over 500,000 inhabitants, the resulting CO2 emissions avoided could be measured in Gigatonnes, not Megatonnes.

The dynamics of mode shift to public transport. Even in the project cities, the short-term (calculated) carbon impacts of successful project implementation are small compared to the *potential* for future savings. The mode share of private automobiles in Chinese cities today is

minor, in most cases less than five percent; in the project cities the highest share is 15 percent in Guangzhou. The share of all motorized trips (which includes taxis) is significantly higher, about 20 percent in Guangzhou. The evidence from both ex-ante estimates and ex-poste evaluations suggest that at present the trips attracted to public transport are diverted from taxis and in some cases bicycles. The estimates of GHG emission savings made here are based on these data, assuming that only about 20 percent of the trips on improved public transport are diverted from motorized modes. This assumption is conservative.

The experiences of Western Europe, Japan, Singapore, and Taiwan suggest that if indeed a culture of public transport can be created, where high quality public transport is put in place so that high urban densities can continue to be supported, then even as incomes rise and even as motorization becomes possible for a wider element of the population, it is possible to persuade people to own less cars, or at least to use them less. The difference between auto ownership rates in the US and Europe is decreasing, but there remains a significant difference in auto *use* rates. The vision proposal is to support the demonstration cities, and eventually other Chinese cities to start putting into place a culture of using public transport, a culture of providing priority to public transport, and a high quality public transport infrastructure supported by an environment favorable to bicycles and pedestrians and auto restraints at present. It would be reasonable to expect that as incomes rise, cities will then be in a position to nurture a sustainable approach that continues to promote alternatives to motorized transport and limits the use and ownership of autos.

Select data on the project cities are shown in the next table. Incremental costs and benefits are shown in the second table.

City	Population in city center (m)	BRT/bus priority	Integrated transit/NMT priority	Demand management	ToD	GEF contribution US\$ million	Estimated 20 yr GHG emissions avoided (Megatonnes)
Changzhi	0.5		Y			\$05-0.75	50
Weihai	0.6	Y				\$0.75	992
Linfen	0.7		Y			\$0.5-0.75	60
Jiaozuo	0.8		Y			\$0.60	**
Xianyang	0.9		Y			\$0.50	912
Dongguan	0.9	Y				\$0.75	830
Luoyang	1.6	Y				\$0.60	**
Urumqi	1.6	Y			Y	\$0.7-1.00	409
Nanchang	2.2	Y			Y	\$1.00	**
Zhengzhou	3.1	Y				\$0.80	1,215
Jinan	3.5	Y		Y		\$1.0-1.8	1,610
Xi'an	5.4	Y		Y	Y	\$2.00	566
Guangzhou	6.2			Y		\$0.75	4
Chongqing	6.5	Y				\$1.00	2,146
Liaoning Province Benxi						\$0.75	**
	1.0		Y				
Fushun	1.4		Y				
Liaoyang	0.7		Y				
Jinzhou	0.9		Y				
Panjin	0.6		Y				

	Baseline	GEF alternative	Increment
Global Environmental Benefit	Growth rate of GHG emissions from urban transport unknown, because trends and behavior poorly monitored, but likely to be steep	Forecasts of growth rate of GHG emissions from urban transport in Chinese cities possible, as is ongoing monitoring of those emissions, because of improved awareness of importance of information to make those forecasts. Forecast CO2 emissions from BRT interventions reduced by 8.7 MT, from the other interventions by .1 MT over 20 years, in the cities where they are implemented. Reductions from the national component or demonstration effects are not quantified.	Cities implement transport investments and plans that produce lower GHG emissions
Domestic Benefits	Transport and land-use decisions are made reactively in response to perceived crisis conditions in congestion, air quality deterioration, energy security, and accessibility loss for households with no car access	Cities make transport investments and plans that effectively promote public transport and non-motorized transport. Paradigm shift among transport and land-use decision-makers and officials in China, whereby urban transport and land-use policies and investment plans are determined proactively, and favor public and non-motorized transport over the private car.	Demonstration cities and others implement transport investments and plans that promote public transport and non-motorized transport. Creation of legal, technical, and financial mechanisms at national level to foster proactive urban transport planning, plus catalytic technical assistance to cities to help program proactive policies, measures, and investments
Costs	Baseline (US\$millions)	GEF alternative (US\$millions)	Increment (US\$millions)
Component 1. National level			
A. Strategic and Legal Framework Development	1.00	2.00	1.00
B. Technical Training and Capacity Building	21.60	24.40	2.80
C. Dissemination and Awareness Raising	1.50	4.04	2.54
D. Monitoring and Evaluation of Pilot Cities	0.00	1.56	1.56

Component 2. City pilot demonstration projects	450.25	572.75	122.50
Component 3. Project management	0.00	2.00	2.00
TOTAL	475.25	606.75	131.50

Methodology

This section presents the methodology and assumptions used in the estimation of GHG emissions avoided from the project. GHG reduction at a given point in time is understood as the difference between what emissions are forecast to be without the project, minus those forecast with the project, as shown in (1).

$$\Delta G = G_E - G_C \quad (1)$$

Where:

ΔG = change in greenhouse gas emissions associated with the project

G_E = greenhouse gas emissions from the evaluation scenario (e.g. with interventions)

G_C – greenhouse gas emissions from the counterfactual scenario (e.g. business-as-usual)

and

E and C are alternative occurrences for the same point in time.

The total emissions avoided for the project is simply $\sum \Delta G$ for all time periods in the analysis (in this case, 20 years.)

The methodology for estimating GHG emissions for each scenario at each point in time is based on the ASIF identity developed by Shipper, et. al (2000). The structure of this identity is given as follows:

$$G = A \sum_m \sum_f S_m I_{mf} F_f \quad (2)$$

where:

G = total greenhouse gas emissions from transport in study area;

A = activity (e.g. passenger kilometers, ton kilometers);

S_m = share of activity occurring on mode m ;

I_{mf} = energy intensity of activity unit occurring in mode m vehicle using fuel f (e.g. fuel consumed per passenger kilometer); and

F_f = net carbon³ content of fuel f (e.g. net carbon content per unit of fuel consumed).

The “I” term is further defined as:

³ For simplicity, this analysis does not include methane or nitrous oxide.

$$I_{mf} = \sum_v \frac{E_v}{O_v} * \frac{VKT_v}{\sum_v VKT} \quad (3)$$

where:

E_v = energy intensity of vehicle v (e.g. fuel consumed per vehicle kilometer);

O_v = average vehicle occupancy per vehicle kilometer occurring in vehicle v ; and

VKT_v = vehicle kilometers traveled by vehicle v .

BRT analysis

For the estimation of CO₂ emissions avoided from the BRT interventions in nine of the project cities, the following assumptions were applied to the ASIF framework presented above. These assumptions were based on international research and observation where possible.

1. Ridership on BRT at maturity. Ridership on the BRT is assumed to be primarily dependent on corridor length and population densities in the area of influence of the BRT lines, rather than the size of the metropolitan area or income distribution of the city. Limited evidence of international experience seems to bear this assumption out. The table below shows ridership from various BRT operations in Latin America and Asia.

City	No. busways corridors	Daily ridership (thousands)	Avg daily ridership per corridor (thousands)
Bogotá (phase I)	4	770	193
Quito	3	368	123
Curitiba	6	532	89
Sao-Paulo	3	274	91
San Mateus Jabaquara	1	207	207
Pereira	2	150	75
Mexico	2	250	125
Jakarta	1	130	130
Beijing	1	100	100
Hanoi*	2	245	123

* projected

These ridership results are notably stable across the regions with significant variations in densities, incomes and motorization levels. The performance of Jakarta and Beijing, which are new services which have not yet attained their full ridership potential, are similar to those of the Latin American cities that have been operating in a steady state. In most cases, the demonstration cities have higher densities, lower incomes and lower levels of motorization than the cities in the Table above. It is reasonable to expect that the BRTs will operate with a ridership of about 120,000 trip

per day per corridor by 2010. It is assumed that ridership will grow over a 10 year period to 175,000 trips a day (this is consistent with the estimates made in Hanoi where a Bank and GEF co-financed BRT system is close to implementation):

The above ridership numbers apply to corridors that are at least 10 kilometers in length. Shorter corridors are assumed to have less potential to attract ridership, so average daily ridership is reduced in proportionally.

2. Composition of BRT ridership. Most of the ridership on the BRTs will be diverted from people who would otherwise make trips on other modes. Of particular interest are trips that are diverted from other motorized modes such as motorcycles, taxis and private automobiles. Evidence regarding such mode switching behavior of riders in BRT systems is available from Hanoi (20%), Jakarta (about 20%) and Bogotá (9%). The relative contribution of motorcycles is assumed to decline after several years – reflecting a growing trend in China to restrict their use in urban areas – while the relative contribution of cars begins slowly and then increases exponentially after year 10, reflecting the likelihood that initially, BRT ridership will draw from other modes, but its presence will have a deterring effect for car use in later years.

4. Calculating vehicle kilometers of travel avoided on alternative modes. For motorcycles, private cars, and conventional buses, passenger kilometers of travel (PKT) avoided were calculated by multiplying the number of trips diverted by an average distance per trip. Based on available data (from Hanoi and Beijing) and urban spatial theory, this average distance per trip is assumed to be two-thirds of the corridor length leading to main employment centers. Vehicle kilometers of travel (VKT) avoided were calculated by dividing PKT by average vehicle occupancy for the mode. Occupancies used were as follows:

Mode	Average occupancy	Source
Conventional bus	25	IEA-SMP 2004
Motorcycle	1.5	China Energy Research Institute
Private car	1.82	IEA-SMP 2004

For taxis, it was assumed that VKT was avoided by a lowering in the overall number of taxis supplied in the long term.

6. Carbon dioxide emissions avoided

CO₂ emissions avoided are calculated by multiplying vkt avoided, by mode, with modal emissions factors. Emissions factors used assume that taxis, conventional buses, and BRT buses are all diesel based, and that motorcycles and private cars use gasoline. The following emissions factors are used in the analysis:

Mode	Emissions factor (g CO ₂ /vkm)
Taxi	268.1
Conventional bus	680.0

Motorcycle	42.2
Passenger car	276.0
Bus Rapid Transit	612.0

7. BRT analysis results

The analysis forecasts that direct emissions reductions from the projects contemplated in the nine cities undertaking BRT work in connection with the proposed GEF-financed project would be about 8.7 megatonnes of CO₂ emissions over the 20 year analysis period than the forecast emissions under the baseline. Sources of these emissions reductions are shown in Table A9.6.

Mode	10 ⁹ VKT reduced	10 ⁶ Tonnes CO ₂ reduced
Motorcycle	0.8	0.0
Conventional bus	1.2	0.8
Passenger car	251.2	6.9
Taxi	44.2	1.2
BRT	(0.9)	(0.3)
Total	296.5	8.7

City	Total CO ₂ avoided (Megatonnes)
Chongqing	2.15
Dongguan	0.83
Ji'nan	1.61
Urumqi	0.41
Weihai	0.99
Xi'an	0.57
Xianyang	0.91
Zhengzhou	1.22
Total	8.68

Integrated measures to provide transit priority and improve NMT access

Five of the project cities as well as the project cities in Liaoning (see table) are planning bus priority schemes that combine on-street priority with signalization and other associated traffic engineering measures focused on improving transit performance. The cities are also proposing integrated actions to promote non-motorized and pedestrian facility enhancement and integration as part of their plans.

As with the estimation of GHG reductions from BRT interventions, the estimate of GHG reductions from enhancements to service level of public transport is VKT-

driven; the methodology seeks to estimate reductions in car, taxi, and motorcycle VKT possible from such improvements.

In cities with limited public transport service, such enhancements – which improve both the quality and level of service – can have significant impacts on ridership, and consequently, magnitude of use of other modes. In Hanoi, addition of new buses, redesign of route structure, and increases in service has led to a ten-fold increase in ridership in 5 years, from 15 million a year in 2001 to over 180 million a year in 2006. In China, recent evidence of the impact of such actions is available from Shijazhuang (Hebei province) Tianjin and Jinan (one of the demonstration cities). In Shijazhuang bus priority schemes have been successfully introduced as part of a Bank-financed project and resulted in a twenty percent increases in ridership. In Tianjin, improvements in service levels and quality results in an 66 percent increase in public transport mode share, from 14 percent in 2004 to 21 percent in 2006. In Jinan, an addition of buses, vehicle miles and improvements in service have resulted in sustained ridership increases of 7 percent a year for the last four years. Such basic improvements may have significant carbon implications, since these trips are drawn largely from other modes, primarily taxis and motorcycles.

Measures to enhance public transport integration can produce many small effects, including increasing travel speeds, reliability, reducing wait time, reducing the variability of wait time, improving passenger comfort or the image of the transport system, or reducing overall point to point trip time. For the purpose of this analysis, it is not possible to analyze all potential sources of travelers' experienced enhancements. Additionally, the cities in Liaoning Province are excluded from the analysis, because data were not available.

For the purposes of this estimate, the impact of these steps on GHG emissions is made assuming:

- These actions will have a ridership impact equal to two-thirds of the ridership impact in Jinan, i.e. 5 percent annually for the period 2008 to 2020;
- Baseline bus mode share would decline by two percent per year, baseline motorcycle mode share would decline to 0 after 7 years (to reflect a trend to restrict motorcycle use in urban areas),
- Proportion of car trips diverted would be extremely modest (10% in year 20);
- Trip lengths are equal to reported average trip lengths for each city and remain constant over the period.

The integration of non-motorized modes with measures to increase public transport performance can have a significant additional impact. Research in the Americas and Europe has repeatedly shown that quality of access to and from public transport is critical to attracting choice riders who might otherwise be taking private, motorized modes. Moreover, the ability to make non-motorized trips conveniently is an

important consideration for household decisions to forego or delay owning a car, which, in turn, influences their choices regarding public transport. Measuring, let alone predicting, the direct impact of such factors on long-term modal shift is difficult; for the moment, therefore, such impacts are not included in the quantitative totals in this analysis.

Integrated public transport results

The analysis conducted for three of the 8 cities undertaking this work (other cities include the five project cities in Liaoning province and Jiaozuo in Henan province) forecasts that direct emissions avoided reductions from the projects contemplated in the three cities undertaking work in connection with the proposed GEF-financed project for which data is available to carry out the analysis would be about 0.3 megatonnes of CO₂ emissions over the 20 year analysis period. Sources of these emissions reductions are shown in the Table below:

City	Total CO ₂ avoided (Megatonnes)
Changzhi	0.05
Linfen	0.06
Xianyang	0.02
Total	0.13

Transport demand management

Guangzhou, Jinan, and Xian have all proposed including transport demand management actions under Component 2. These include measures such as parking restrictions, parking charges, and congestion pricing.

Congestion pricing is a well understood and high profile example of demand management, which also facilitates an analytically tractable estimate of GHG impacts. The experiences of Singapore, London, and Stockholm provide some evidence of what can be expected from congestion pricing schemes. In Singapore, when an Areawide Licensing Scheme was first implemented in 1975, peak hour vehicle traffic dropped 44 percent, and the car component of that traffic was down 73 percent. A congestion charge in central London instituted in 2003 resulted in a more modest 20 percent reduction for the charge period, once traffic returned to equilibrium – about six weeks after the start of the program (Evans, et. al 2004). Experience in Stockholm was similar, with peak-hour trips falling by 14.6 percent. (Prudhomme and Kopp 2006).

However, implementing congestion pricing is a difficult and complex. Strong political will is needed, and significant amounts of investment are needed in order to produce widely acceptable, fair and well-functioning systems. While, the

demonstration cities (and ultimately other cities) may indeed decide to embrace congestion pricing schemes, it is important to note that there exist a variety of other, some politically easier, schemes that have the same incentives, of rendering automobile *use* more expensive.

Increasing **taxes on fuel**, when possible at the local level, can effectively have similar impacts as a congestion charge. High fuel taxes in Western European countries such as UK, France, Spain, and Italy, have been used to explain much lower fuel usage (smaller cars, driven less distances) in the cities of these countries when compared to the cities of the US with roughly comparable incomes. **Parking management** is another tool that increases the cost of driving by increasing the costs of parking or restricting parking altogether. Commercial parking costs in the centers of cities like Manhattan, in themselves serve as a de facto congestion charge. Other cities, like London and Boston, followed a conscious policy of not allowing provision for parking in the city center, as a deliberate attempt to discourage auto traffic and promote a public transport centered downtown. Albert and Mahalel (2006) found in a study that parking price had a impact similar to congestion pricing, (albeit with a third lower elasticity).

There are a variety of other policies cities could use, many of which have different kinds of impacts that are difficult to analytically predict. Cities such as Singapore and Shanghai have implemented restrictions on **automobile ownership**, restricting the number of automobile titles issued in the city annually. This certainly reduces automobile ownership (Shanghai has an automobile ownership rate significantly lower than Beijing, though both cities have similar income levels). However, the experience of Singapore suggests that automobiles once purchased in such a regime are sometimes used even more intensively than they would be otherwise. Cities such as Tokyo (and less effectively Hanoi) have used **parking availability to restrict ownership**. Proof of a legal (and expensive) parking spot is a pre-requisite to being allowed to register a car in the dense residential districts of these cities. Mexico city imposed **command and control** restrictions, limiting cars with certain license plate numbers to downtown only on some days (differentiating between odd and even). Though even such schemes undoubtedly reduce emissions somewhat, they create perverse incentives (to keep old cars to one can own two cars, create a black market for license plates) that confound any benefits.

In summary, there are a range of different demand management schemes that cities can implement. The impacts that such measures can have on overall vehicle use and consequent CO₂ emissions will depend on the design of the particular programs, and the manner in which the city-specific plans play out in the context of rapidly rising motorization rates in the city (see Table below for current motorization rates). Congestion and parking pricing, while only a sample of the available choices, provide an analytically tractable framework to estimate CO₂ emission impacts.

The analysis carried out assuming that the implemented demand management schemes will have the same impact as a congestion management scheme that will deter 15 percent of total daily trips by car and motorcycle. These trips are converted to vehicle kilometers traveled based on the following average vehicle trip distances (about 5 km) calculated based on data provided by the cities.

City	Motorization rate (cars/1000)	Total CO ₂ avoided (Kilotonnes)
Guangzhou	38	3.57
Jinan	33	0.58
Xian	20	1.30
Total		5.45

Note: Baseline mode shares were estimated from base-year mode shares, with the assumptions that public transport, walking, and cycling mode shares would decline by 2% per year. Taxi, motorcycle, and private car would gain mode share in proportion to their relative mode share in the base year. Thus, the 15% trip reduction because of the transport demand management measures is assessed relative to the baseline.

Transit Oriented Development

The city of Nanchang has put forward an innovative proposal to use GEF co-financing to produce transit-oriented development for two sections of the city. The Binjiang area is currently an industrial area which is being converted into a residential community of 50,000 – the polluting industry and a powerplant have been/are being moved. The Chaogang area is currently peri-urban with a mixture of some low density residential population and small industry. This area is being urbanized with a planned residential based mix of 40,000.

GEF co-financing will support the development of physical plans, urban design, policies and guidelines that:

- The quality of (and as needed measures to improve) bus connections between the redevelopment district and the city center.
- The development of the road network inside the district that focus on transit priority (such as Curitiba style roads that focus development about corridors with a bus-only road at its center) and NMT priority (development of a thick grid of secondary roads to facilitate pedestrian and cyclist trips).
- A urban development plan that focuses land development about major bus-stops and ensures that a majority of residents live within walking distance to a good bus connection;
- Detailed urban design guidelines (and as appropriate regulations) that ensure that buildings, sidewalks and transit infrastructure is designed to maximize the

competitive advantage of bus over competing modes. Singapore's experience with respect to avoiding parking lots about buildings (which make private transport much more attractive than walking to the bus), providing for awnings that protect people walking on the sidewalk from the sun and rain, and integrating stations with commercial developments are particularly significant in this regard.

- Urban development plans that facilitate shorter, walking and cycling trips by providing schools (and safe cycling and pedestrian accessibility to schools), shopping and recreational facilities conveniently in the district.

The most visible case studies are those of Hong Kong and Singapore where transit-oriented development has been at the core of a multi-pronged strategy to provide priority to public transport. Despite first-world income levels, 90 percent of work trips in Hong Kong use public transport. On the other hand, cities such as Toronto and Paris, well known for high quality public transport in the city center have developed auto-centered suburbs where public transport has only a marginal role. In the US, sections of Northern Virginia represent a high profile success story for ToD. In Ballston thousands of new jobs have been added in the period 1980 to 2005 without appreciable increases in traffic. The use of single vehicle for commuting is about half of what it is for the region (40 percent versus 70 percent). While there is widespread agreements that such ToD measures can have dramatic impacts on private motorized travel, getting accurate estimates of such an impact remains challenging. The success of a ToD depends on a combination of factors: high level planning, detailed urban design, larger trends in employment and population in the region and in many cases luck.

Two sources of systematic analytical work are available. An analysis of the potential for carbon-benefits from land-use changes in Santiago-de-Chile (Zegras, 2006) finds the possibility for 67 percent lower emissions from implementing all elements of a ToD concept. The analysis found that just adapting school location policy to minimize motorized travel would reduce GHG emissions by 12 percent. A report assessing the US experience found (TCRP, 102) that up to twenty to forty percent savings in VMT can be achieved even in the US setting.

The Nanchang context offers an opportunity akin only to Hong Kong and Singapore – to design a system right at first go, rather than make marginal changes to a system already built out (as in most of the US) or retrofit a transit-oriented plan (as assessed in Santiago). The available evidence suggests that the potential is significant – but difficult to quantify. For the purposes of CUTPP, it was decided to focus measurement efforts relating to this sub-component in a forward-looking manner. This sub-component will be subject (more so than the rest of the demonstrations) to a focused evaluation effort. Discussions are ongoing with Professor Chris Zegras at MIT on this issue.

Annex 16: STAP Roster Review (WB)

PEOPLE'S REPUBLIC OF CHINA: GEF China World Bank Urban Transport Partnership Program

China Urban Transport Partnership Project (CUTPP)	
GEF- STAP Review	
Client: WB/EASTR; TTL: Shomik Mehndiratta	Date: March 22, 2007
Reviewer: Dr. V. Setty Pendakur Pacific Policy and Planning Associates Vancouver, BC, Canada 604-263-3576 pendakur@interchange.ubc.ca	

1. Executive Summary

- A. The following is a GEF-STAP Review of the China Urban Transport Partnership Project (CUTPP), currently under preparation by EASTR/World Bank. The review was guided by the Generic Terms of Reference (GTOR) available from the ENEP-STAP Secretariat, guidelines derived from various GEF documents listed in paragraph 2 below and the specific TOR provided by the TTL of the project on March 13, 2007.
- B. The task team and the TTL readily provided all the requested documents. The TTL was available for consultations and clarifications throughout the review period. The documents provided by the Bank and reviewed are listed in paragraph 3 below.
- C. Paragraph 6 below details the review of CUTPP in the context of GEF goals, objectives, operational strategies and operational programs. The most recent documentation, regarding the GEF Operational Program #11: Promoting Environmentally Sustainable Transport, was used as a primary guide for the review.
- D. *As a result of this STAP Review of CUTPP, the requested GEF funding is recommended for approval, subject to the conditions and suggestions detailed in paragraph 15 below.*

2. GEF-STAP Review Guidelines

This review is guided by and derived from the following documents:

- A. Operational Strategy of GEF, available from GEF, March 15, 2007;
- B. Relations with the Conventions, GEF/C.12/12-1998, available from GEF, March 15, 2007;

- C. GEF, Operational Program # 11: Promoting Environmentally Sustainable Transport, Available from GEF, March 15, 2007;
- D. GEF, Elements of A GEF Operational Program on Transport, GEF/C.12/14/Rev.1, March 14, 2007;
- E. Public Involvement in GEF-Financed Projects, available from GEF, March 14, 2007;
- F. GEF Business Plan for FY 2005-2007, from GEF, March 14, 2007;
- G. Climate change strategic priority related to sustainable urban transport; from GEF, March 16, 2007;
- H. Generic Terms of Reference (GTOR) for the technical review of projects proposals, issued by UNEP on March 13, 2006;
- I. Focal Area Specific Annotations (FASA) to the GTOR of the STAP Roster Review, available from GEF, March 15, 2007; and the
- J. Terms of Reference (TOR) provided by the TTL of CUTPP, emailed on March 13, 2007;

3. Documents Reviewed

The following documents, provided by the Task Team of CUTPP, were reviewed as part of this STAP Review:

- A. CUTPP: Project Concept Note (PCN), February 01, 2007;
- B. CUTPP Mission to China, Aide Memoir, February 5-14, 2007;
- C. CUTPP: GEF Project Brief, Draft, March 13, 2007; and
- D. CUTPP: GEF Project Brief, Executive Summary, Draft, March 13, 2007.

4. Consultations with the Task Team

During the review period, the reviewer had the opportunity to consult with the TTL, Mr. Shomik Mehndiratta regarding the details of the GEF components of the project and to obtain additional information and documents as required. The reviewer is grateful to the TTL for all discussions, explanations and additional documentation provided on request.

5. Project in Brief

Briefly, the CUTPP consists of six primary components as follows (**GEF: 21.0 million USD**):

- A. **Component 1A; Development of National Urban Transport Policies and Strategies** (with cities as partners) for sustainable urban transport planning and investment, institutional strengthening and reform, and developing a legal framework for implementation of sustainable urban transport policies at the national level (GEF: 1.0 million USD);
- B. **Component 1B; Technical Training and Capacity Building Program** enabling the achievement of objectives stated in above paragraph 5A above (GEF: 3.0 million USD);

- C. **Component 1C; Stakeholder Participation, Dissemination and Awareness Raising Program** (GEF 2.0 million USD);
- D. **Component 1D; Monitoring and Evaluation of Demonstration Projects**, with a focus on replication (GEF: 1.0 million USD);
- E. **Component 2; Technical Assistance to Demonstration Projects in 14 cities and Liaoning Province** (GEF: 13.0 million USD):
 - i. **Component 2A-1:** Technical assistance to the 14 cities, for a variety of measures including BRT, Bus Priority, TDM, Transit Oriented Land Development some of which are financed by the cities themselves and some are jointly financed with WB loans and domestic funding, aimed at Modal Shifts towards public transport and non-motorized transport- NMT; (GEF: 12.35 million USD);
 - ii. **Component 2A-2::** Technical Assistance to Liaoning Province (GEF: 0.75 million USD)
 - Component 2-A-2-1: For Consolidating Public Participation Methods for Urban Transport Investments to mainstream PP process into city wide annual activities in the 5 cities of the on-going WB financed project; and
 - Component 2A-2-2: Technical Assistance to Liaoning province to develop capacity to Scale Up of Public Transport Improvements (including enterprise reform towards competitive franchising and effective provision of on-street bus priority) and enhancing pedestrian and cyclist enhancements in cities province-wide; (GEF: 0.75 million USD ; and
- F. **Component 3; Project Management** (GEF: 1.0 million USD).
- G. **GEF Total: 21.0 million.**

6. Project Design vis-à-vis GEF Strategic Goals and Operational Programs

- A. The primary objective of the proposed project is to assist China to develop and implement strategies for sustainable urban transport planning, and to develop an institutional and legal framework for planning and implementing sustainable urban transport systems. It also includes a technical training and capacity building program, to achieve paradigm shifts from intensive investments in road infrastructure to encouraging modal shifts to the environment-friendly modes: public transport and NMT. It also aims to assist 14 cities and one province in developing long term strategies for sustainable transport. This planning and policy exercise is supplemented by a series of demonstration projects, emphasizing public transport and sustainable transport policies, in 14 cities together with proposals for technical training and capacity building.
- B. These components of the project are consistent with Elements of GEF Operational Program on Transport, paragraphs 9 and 10 (GEF activities are designed to support national policies that provide adequate incentives

for the development paths that are sound from a global environmental perspective (reduction of GHG). The project design is also consistent with GEF Operational Program # 11: Promoting Environmentally Sustainable Transport, paragraph 11.10 requiring the scope of the proposed programs emphasize and promote modal shifts to more efficient and less polluting measures and non-motorized transport and eligible activities for GEF Funding as in paragraph 11 (Integrated strategic urban land use and transportation planning, training, capacity building and technical assistance, demonstration projects and dissemination).

- C. The project's overall structure is technically sound and comprehensive in its approach to developing sustainable transport policies, plans and programs.
- D. The project, as proposed, is consistent with GEF Operational Program #11: Promoting Environmentally Sustainable Transport (June 21, 2001) and comprehensively covers the priority areas detailed in the Elements of a GEF Operational Program on Transport (GEF/C.12/14/Rev.1/March 14, 2006). It is also consistent with GEF Strategic Priorities regarding climate change and sustainable transport (GEF Business Plan for FY 2005-07, GEF/C.21/9). More specifically, this project proposes to address the issue of modal shifts to environment friendly transport modes through an emphasis on BRT, non-motorized transport (pedestrian and bicycling infrastructure) and TDM in its demonstration projects.

7. Client Ownership (Country-driven) of the Project

- A. The Project Brief indicates clearly that client ownership is very strong and the project components are country driven at all levels of participation. The project has been prepared by and will be implemented by the Ministry of Finance (MOF), which is also concurrently the GEF Focal Point for China. MOF is also fully responsible for executing and coordination project preparation and implementation. The coordination mechanism already set up during the preparation stage, is a Project Steering Committee (Chaired by MOF) and includes senior officials from all the involved ministries: National Development and Reform Commission (NDRC), Ministry of Construction (MoCn) who are responsible for urban planning and urban construction in China, Ministry of Lands and Resources (MLR), Ministry of Public Security who are responsible for traffic management, traffic safety and traffic law enforcement, State Environmental Protection Agency (SEPA) who are responsible global environmental quality concerns and the China Association of Mayors (CAM). MOF has already set up a Project Expert Panel, with representation from all the participating ministries. Furthermore, all of the participating cities have set up implementation committees led by the city leadership (mayors). Project Brief also indicates that the mayors of all

the 14 participating cities have attended meetings at MOF, reflecting a strong commitment at the local level.

- B.** It is not clear what level of commitment has been made and what coordination mechanisms have been organized at Liaoning provincial level (paragraph 5E ii, above). This needs to be further clarified to assure that the province is committed strongly carrying through the project proposals for consolidating the gains made on public participation from the Liaoning Medium Cities Infrastructure Project, to the level of provincial application. It is also not clear as to how and by what means they plan to scale up public transport investments. Also, their proposed strategies need to be described and clarified.
- C.** With respect to the demonstration projects in 14 cities (paragraph 5E i above), there is a very high level of commitment as indicated by their willingness to commit fairly large investments for these pilot projects.
- D.** *It is concluded that the project has very strong client commitment both to the project's short-term goals and to the underlying long term concepts (paradigm shift) to merit GEF support, at the national level. However, it is necessary and important to describe and clarify the client ownership and institutional arrangements regarding Liaoning province, as stated above.*

Response to 7D. Liaoning's commitment is very strong. Liaoning is an unusual case where the Bank is working with both city and Provincial government in this sector (usually interaction is directly at the city level). Though the Provincial department does not borrow (loans are on-lent to Municipalities), it facilitates project management and leads the dialog with the Bank. The interest in the issues covered in the design have come from the highest levels of the Liaoning Provincial Construction Commission (Vice Director), the agency in charge of the Bank-financed project and of public transport for the Province. Substantive interest from a provincial government is a rare and important opportunity. See more details below in response to 8.

8. Component 2A-2: Technical Assistance to Liaoning Province: Institutional Issues:

The GEF grant request is in two parts as follows and is included in Components 2A-2, described in paragraph 5 above: Technical Assistance to the Demonstration Projects (GEF: 0.75 million USD):

- i.** Component 2A-2-1: To provide a template for the 5 project cities (Benxi, Fushun, Liaoyang, Jinzhou and Panjin of the on-going WB project) to mainstream the public participation process (PPP) into city-wide annual activities, developing standardized guidelines for and evaluation of PPP; and
- ii.** Component 2A-2-2: To support the provincial government to conduct a review of activities related to the improvement of public transport services, to ensure the safety of NMT users in the 5

project cities and to develop capacity to scale up public transport and NMT improvements in the cities province-wide.

- A. These overall objectives are highly consistent with GEF Strategic Goals, Operational Program #11 on Sustainable Transport and GEF Business Plan for 2005-2007. The GEF grant would enhance the effectiveness of the on-going project considerably in scaling up public transport services and emphasizing enhancing the NMT investments and NMT use.
- B. It is not clear as to which department or agency will be the anchor point and will have the responsibility for the GEF project. For example, item in paragraph 8A i above (Component 2A-2-1), can be done by the agency which now has the responsibility for coordinating on-going WB project. However, the item in paragraph 8A ii above (Component 2A-2-2) will require a provincial department or agency which actually has the authority and can take further actions to scale up public transport and NMT investments and use. *These issues regarding ownership, institutional arrangements, project coordination and project execution should be clarified and strengthened.*
- C. *It is not clear as to why another provincial agency should be involved in developing standard templates for PPP and for organizing city-wide annual PP activities. There is already a coordinating agency for the project (Liaoning Urban Construction and Renewal Project Office-LUCRPO), who are familiar with the on-going WB financed project details. Why get another agency to coordinate this effort? The rationale for selecting the province, instead of LUCRPO, should be explained and further justified.*
- D. It is not indicated in the project documents, as to which department or agency of Liaoning province will be the anchor point for achieving the “scaling up of public transport investments, services and integrating them with NMT investments and use. *It is necessary to get the appropriate department or agency to be the owners of this effort. Suggested agencies are Liaoning Provincial Development and Reform Commission (LPDRC) or Liaoning Construction Department or Commission. However, it is important to get an agency which is responsible for public transport investments and regulation in Liaoning.*
- E. The experience of Liaoning in scaling up of public transport investment and services, and NMT investments and use, could be of significant importance to the GEF project as a whole, in terms of potential replication in Chinese cities. *It is therefore, very strongly recommended that Liaoning (the anchor agency or department) be looped into the institutional coordination system organized by MOF at the national level. The points of success and challenge from the Liaoning experience can then be incorporated into national policy development.*

Response to 8B+C. The Liaoning Urban Construction and Renewal Project Office (LUCRPO), the Project Management arm of the Liaoning Provincial Construction Commission who is implementing the Bank financed LMCIP is actually a provincial body. LUCRPO will also implement the GEF project on behalf of the Liaoning Provincial Construction Commission. There is no new body involved. The implementation and coordination of the GEF project will be completely integrated with those for LMCIP. The Brief has been updated to reflect that.

Response to 8D. The Liaoning Provincial Construction Commission is in charge of approving transport masterplans and public transport plans of Liaoning cities. The component design responds directly to requests from LUCRPO and Liaoning Provincial Construction Commission for help in institutionalizing the public participation and to support the province to systematically address bus enterprise reform.

Response to 8E. This is a good point and is well taken. It would be useful and valuable to learn from and look to replicate the Liaoning experience with other Provinces. We will discuss this suggestion with the PMO and the Steering Committee and figure out modalities for implementation.

9. Component 1C: Stakeholder Participation, Dissemination and Awareness Raising Activities (GEF: 2.0 million USD)

- A. The GEF Project Brief states that this task has two primary objectives and it details several activities to support the achievement of these two objectives:
 - i. First is to disseminate the particular knowledge and experience gained in all components of the project, for the purpose of facilitating knowledge transfer to those potential replication cities and through an on-going adoption of best practices.
 - ii. The second objective is to raise awareness of sustainable transport ideas and options among governmental decision makers, technical staff and the general public.
- B. *It is highly recommended that the project communications strategy includes a close liaison with and makes use of highly popular regional discussion groups such as SUSTRAN Network which was, initially started by the UNDP and ITDP. SUSTRAN attracts a very large group of transport professionals from Asia in particular and globally in general. There are other global networks on sustainable transport which should also be considered in developing web based communications strategies.*
- C. *It is recommended that electronic information links be established with leadership agencies such as the China Association of mayors as well as professional associations such as the China Association of Urban*

Planners. In this regard the Association of the Deans of engineering faculties of the Universities in China becomes important links.

- D. Stakeholder participation, involvement and inputs are integral to GEF operational programs on sustainable transport. The project design and sought-after goals are supportive of and consistent with the operational goals of GEF for the sustainable transport. It is concluded that this component is structured to satisfy the GEF requirements.*

Response to 9B. The point is well taken. The PMO and the cities will be encouraged to join and contribute on SUSTAN and other such groups. We will also ask them to consider creating their own, Chinese language listserve – perhaps in conjunction with CAI-Asia China Chapter

Response to 9C. China Association of Mayors is a member of the Project Steering committee and an integral stakeholder of the Project from its inception. The advice regarding dialog with professional associations and universities is well taken. Such dialog has started but will be enhanced during implementation.

10. Component 1B: Technical Training and Capacity Building (GEF: 3.0 million USD)

- A.** Because of historical factors, the planning and implementation regarding urban transport is fragmented, distributed among several agencies and therefore, is not coordinated effectively. Institutional capacity regarding comprehensive planning for sustainable urban transport is lacking and it is essential that coordinating mechanisms are instituted and the institutional capacity to think and act in terms of sustainable transport is bumped up substantially. The project proposes to tackle these very complex institutional issues by a series of well defined modules.
- B.** This includes several modules which are inter-related: to develop and implement a multi-year program of technical staff training directly related to sustainable urban transport, to develop, through university partnerships, post-graduate level courses in planning for sustainable urban transport and to set up electronic and web based systems for easy knowledge transfer. As these institutional systems are entrenched (both in government and in educational institutions) and are very resistant to change even in a fast changing economy like China, the project designers are to be commended for their proposals.
- C.** *The proposed program is consistent with the long term strategies of GEF and supportive of the operational program #11 on sustainable transport. Where site visits and study tours are planned, it is recommended that selected cities include Jakarta, Kunming and Beijing (because of recent BRT developments), Singapore (as the world leader in transport demand management and modal integration) and Seoul (for the most recent bold and innovative steps to shift away from MVs).*

- D. *Subject to above comments and required clarifications, the GEF grant to this component is recommended for approval.*

Response to 10C. The point is well taken and will be passed on to the PMU.

11. Partnerships

- A. The project documents indicate that discussions are on-going to establish partnerships with GTZ, Energy Foundation and the Institute for Transportation and Development Policy (ITDP). Partnership, with the universities, is also mentioned with regard to long-term training goals. *Establishing partnerships and leveraging GEF investments is totally consistent with GEF Operational Strategies, GEF Operational Program #11 and the Convention of the Parties on Climate Change COP). This effort should have high priority and should be encouraged.*
- B. GTZ is involved in training programs related to sustainable urban transport in China now and is expected to continue for the near future. Energy Foundation has been involved in several cities of China with regard to BRT and bus priority, including currently with Beijing BRT. ITDP was involved in the development of BRT systems in Kunming and now in Guangzhou. These two global civil society organizations are very important parts of the global movement toward sustainable transport and encouraging investments in and the use of NMT in many cities of the world.
- C. In terms of long term technical training and scaling up the transport professions towards sustainable transport, Chinese universities play a very crucial and important role. Any effort to move them from engineering and modeling based transport planning to sustainability based transport planning should be encouraged. The Task team is urged to seek close cooperation with the deans of the faculties of engineering and urban planning; some of these universities are Beijing University of Technology, Northern Jiaotong University in Beijing, Xian Transportation University, South East University in Nanjing, Tongji University in Shanghai and Qinghua University in Beijing.

Response to 11A and B. GTZ has sent a letter of support to the Bank for the Project. The Bank and GTZ are working together already on a number of initiatives in China on training. CUTPP provides an integrated platform to institutionalize and scale up these efforts.

Response to 11C. We agree. The role of Chinese universities will be significant to make this project a success. Faculty from South East University in Nanjing are on the technical committee. Interaction has been ongoing with faculty at Tsinghua and Tongji (the professors are excited by the project and feel they can contribute to its success significantly. They are interested in participating in the project as potential consultants. For this reason it was decided not to involve

them as members of the technical expert group – which would have created conflicts of interest). Before CEO endorsement, the PMO will try to obtain MoUs with 2 or 3 universities who will partner in the academic training/capacity building initiatives.

12. Component 2-1: Technical Assistance to Demonstration Projects in 14 cities

- A. The cities were selected in an interestingly competitive process initiated and driven by the national government. *There is very strong evidence of ownership by the cities and the national government. The GEF grant request is for 13.0 million USD for technical assistance to enhance the quality of the output of the demonstration projects where as the 14 cities collectively, are investing 356.75 million USD themselves in these demonstration projects.*
- B. The demonstration projects vary but they focus on overall sustainability, public transport and planning. BRT systems are envisaged for Chongqing, Dongguan (Guangdong), Luoyang, Zhengzhou (Henan), Jian, Weihai (Shandong), Xian (Shaanxi and Urumqi (Xinjiang). It is proposed to develop strategic plans for public transport priority integrated with NMT in Changzhi, Linfen (Shanxi), Jianzuo (Henan), Xianyang (Shaanxi), Nanchang (Jiangxi), Benxi, Fushun, Jinzhou, Liaoyang and Panjin (Liaoning).
- C. Chongqing will also try to develop a short term, low-cost plan to increase the ridership in the urban rail line which has been operating since 2005. TDM measures will also be developed in Guangzhou, Jinan and Xian. Also it is proposed to develop strategic plans for transit oriented development in selected districts of Nanchang and Xian.
- D. *The proposed demonstration projects are very important and are consistent with GEF Strategies and goals. Public acceptance, professional and bureaucratic acceptance, and changing the mind set will be the most important outputs. While the project documents make it clear as to how the information would be disseminated in the demonstration cities, it is not clear as to how this wealth of information would be integrated into the technical training and capacity building as well as its easy availability for other cities for replication. While there is a tendency to consider this information as proprietary (by the government agencies) and confidential, easy replication can only be achieved by easy access to information. These aspects should be further clarified.*
- E. *Subject to above comments, the demonstration project component is recommended for approval by GEF.*

Response to 12D. We completely agree. Ensuring that all the knowledge generated by the Project will be properly disseminated and distributed is integral to achieve Project objectives. Much of the technical material will be

developed in the form of standards, guidelines and regulations which will be officially issued, either by the Ministry of Construction, or the Steering Committee and made available to the public. Draft versions of the material will be discussed at conferences and be available publicly on the internet for comment. ICT, the institute under NDRC (which also plans to create a 'Green Transport Center' based on the CUTPP platform) and a new public transport center set up by one of the project cities (Jinan) have agreed to maintain and deliver other materials (training materials, web-based tools) and make them available for the public. The academic training and curriculum enhancements will be managed by the University partners and made available to other universities.

13. Component 1D: Results Framework Monitoring and Evaluation, Replicability and Added Value Beyond the Project (GEF: 1.0 million USD)

- A. The unique feature of this proposal is that it seeks clear and understandable objectives for paradigm shifts. The main outcome expected is that the 25 cities (who did not participate in the demonstration projects of this project) come forward and demonstrate an interest and willingness to prepare urban transport plans for cities, consistent with sustainability, public transport priority and extensive use of NMT, and move away from current practices. The secondary objective is that out of these 25 cities, at least 12 cities implement the plans as suggested above and thus able to slow down CO2 emissions compared to the "business as usual" forecasts. The results framework system proposed in Annex 3 of the GEF Project Brief could be used as a model for other country projects. The project designers should be commended for this clarity.
- B. *These objectives are consistent with GEF Operational Strategies, Operational Program #11 on Sustainable Transport and GEF Business plan for 2005-2007. The grant for this component is recommended for GEF approval.*

14. Identification of Global Environmental Benefits

- A. Global environmental benefits have been identified and listed in Annex 15 and the accompanying benefit tables. The GEF Scenario based benefits shown in Annex 15, Table A15.1 total 606.75 million USD. These are appreciably high benefits for the GEF investment of 21 million USD.
- B. *The methodology used for computing the incremental benefits, because of GEF interventions, is technically sound and reflects acceptable parameters.*
- C. More importantly, the unique approach of this project is the emphasis on modal shifts to environment friendly modes such as public transport and NMT. In addition, the project aims to achieve the laudable goal of inducing 12-25 cities to adapt sustainable urban transport policies. These

non-computable benefits are of immense long range value in shaping the urban futures in China.

15. Recommendations

- A. Component 1A; Development of National Urban Transport Policies and Strategies (GEF: 1.0 m USD):** Details of this component are discussed in paragraphs 7 and 8. It is recommended that this be approved, subject to clarification regarding institutional arrangements and linkages, and details to be provided in revised project documents, as discussed in paragraphs 7, 8, and 11.
- B. Component 1B; Technical Training and Capacity Building Program (GEF: 3.0 million USD):** It is recommended that this be approved, subject to comments and recommendations made in paragraph 10.
- C. Component 1C; Stakeholder Participation, Dissemination and Awareness Raising Program (GEF: 2.0 million USD):** It is recommended that this be approved, subject to comments and recommendations made in paragraph 9.
- D. Component 1D; Monitoring and Evaluation of Demonstration Projects:** It is recommended that this be approved.
- E. Component 2; Technical Assistance to Demonstration Projects in 14 Cities and Liaoning Province (GEF: 13.1 million USD):** It is recommended that technical assistance to the 14 cities be approved, subject to comments made in paragraph 7, 8, 11 and 12. It is further recommended that technical assistance to Liaoning Province be approved, subject comments and recommendations made in paragraph 8.
- F. Component 3; Project management (GEF: 1.0 million USD):** It is recommended that this be approved.

Response to 15. All the responses and clarifications have been made in paragraphs 7, 8, 9, 10, 11 and 12 above.

Annex 17: GEF Secretariat and Other Agencies' Comments and IA/ExA Responses (WB)

GEF China World Bank Urban Transport Partnership Program

Comments from the GEF Secretariat

(Including Responses from the WB Team)

Component	GEF Secretariat Comments	WB Response
Page 5. Program Designation and Conformity	Please keep in mind that the activities related to “traffic safety” are in principle, ineligible and “Workshop” needs to be fully justified for GEF financing. (It is unclear whether these activities will be funded by GEF financing in the current proposal).	(i) The GEF is not asked to fund any traffic safety measures. (ii) The documentation has been revised to more explicitly draw the links between the proposed workshops and OP11 objectives.
Page 5. Program Designation and Conformity (Indicators)	Please include the indicators relating to the CO2 emissions reductions and the number of person trips on sustainable transport modes as “Key Indicators”	The documentation has been revised to reflect this recommendation. See Cover Page and Annex B (results monitoring) of the Executive Summary (Annex 3 of the Brief)
Page 8. Sustainability (including financial sustainability)	Please show the evidence for an interest in a follow-on Bank loan expressed by the cities	(i) Interest in the a follow-up loan was one of the evaluation criteria for city selection (ii) The cities are in different stages of a complicated loan application process (cities need to first get approval from provincial bodies, which in turn need to get approval from national bodies). See supplemental note from the PMO summarizing how far along different cities are in this process.
Page 8. Replicability	Please attach a map illustrating the project cities with some background data (population, number of vehicles and/or motorization rate etc.) and the potential cities for replication	(i) A map showing project cities is attached to the Brief (ii) Annex 20 of the Brief provides detailed background data, some of which has been summarized in the Annex 1 commentary (iii) All Chinese cities with a population over 500,000 are potential replication cities.
Page 9. Stakeholder Involvement	Please attach a list of potential civil society organizations and groups of citizens to be involved in the project	(i) Civil society organizations (CSO), completely independent of government establishment are still relatively rare in China. Based on previous experience, at the city level the organizations involved will include decentralized local bodies such as commune and street committees as well as special-interest groups such as the Associations representing retirees, women and the disabled will be important interlocutors. The national representatives of these organizations will be involved (ii) Professional organizations such as China Mayor’s Association, and China Public Transport Association and the China Association of Urban Planners have been and will be involved. See also supplemental from PMO attached to this Annex. (iii) International CSOs active in China in the sector including Clean Air Initiative (China), the Energy Foundation, the Institute for Transport and Development Policy (ITDP), and Sustainable Urban Mobility for Asian Cities (SUMA) will be involved.
Page 11. Financing	1. The detailed budget table needs to be attached 3. The commitment letters from the co-financiers need to be attached	These will be provided at the CEO endorsement stage as per GEF guidelines

Component	GEF Secretariat Comments	WB Response
Page 11. Financing	2. “Office Facilities, equipment, vehicles and communication (GEF: \$0.25m) needs to be justified.	These costs include costs of translation, interpreters, computers and software. No vehicles will be purchased. See Annex 5 of the Brief and Page 17 of the Executive Summary.
Page 11. Financing	“Plus 11 cities interacting with World Bank, and partner institutes” needs to be clarified	The 11 cities include the cities of Fushun, Benxi, Liaoyang, Jinzhou, and Panjin in Liaoning; Wuhan in Hubei; Taiyuan in Shanxi, Shijazhuang in Hebei, Fuzhou in Fujian, Hefei and Wuhu in Anhui. See Annex 5 of the Brief and Page 17 of the Executive Summary.
Page 14. General Comments	PPG completion report needs to be submitted	This will be submitted before CEO endorsement as per GEF guidelines

Supplemental Note 1: On Sustainability (Page 8) in response to comments from GEF Secretariat [Provided by the PMO]:

The evidence for an interest in a follow-on Bank loan expressed by the pilot cities is summarized in the following table.

Project City	International Co-Financing Application Status
Jinan	World Bank loan application programmed by Municipal Government; communicated to Development and Reform Commission of Shandong Provincial Government.
Guangzhou	Already obtained US\$180 million World Bank loan, with US\$120 million remaining for implementing urban transport improvement projects.
Weihai	World Bank loan application programmed by Municipal Government; communicated to Development and Reform Commission of Shandong Provincial Government.
Urumqi	Officially submitted World Bank loan application proposal to Development and Reform Commission of Xinjiang Uygur Autonomous Regional Government; promoting for inclusion in the 2009-2011 program of the National Development and Reform Commission.
Zhengzhou	Necessary communications with Provincial DRC has been made. BRT feasibility study report for World Bank loan application has been finished by the municipal government and under reviewing evaluation by authorized departments and experts concerned. It will soon be submitted to provincial DRC after the updating is done according to the comments of the departments and experts mentioned above.
Jiaozuo	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Luoyang	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Linfen	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Chongqing	World Bank loan application being programmed by Municipal Government for LRT and BRT projects.
Nanchang	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Xianyang	Interest in World Bank loan application communicated to Development and Reform Commission of Shaanxi Provincial Government and National Development and Reform Commission.
Changzhi	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Dongguan	World Bank loan application proposal under preparation by Municipal Government for sustainable urban transport project.
Xian	Already obtained US\$150 million World Bank loan for implementing urban transport improvement projects.

Supplemental Note 2: On Stakeholder Involvement (Page 9) in response to comments from GEF Secretariat [Provided by the PMO]:

The list of potential civil society organizations to be involved in the project is provided in the following:

- China Association of Mayors
- China Communications and Transportation Association
- China Urban Public Transportation Association
- Urban Transport Planning Society of China
- Urban Planning Society of China
- China Environmental Protection Association
- China Civil Engineering Society

The list of potential citizen groups to be involved in the project is provided in the following:

- Women's Federation
- Disabled Persons' Federation
- Association of Senior Citizens
- Street Community Citizen Groups

These and other relevant civil organizations or citizen groups will be invited to participate as well as co-sponsor the dissemination and public awareness activities programmed in the GEF project. Representatives of these organizations or groups will be invited to the conferences, forums and training sessions of the project. In addition, they would also be encouraged to delegate key representatives to provide comments on the draft outputs of the national component tasks, such as national strategies, planning guidelines, or legislative recommendations.

In the pilot cities, local members or chapters of the national organizations can be a focal point or have a supporting role in the project's dissemination and public awareness activities as well as capacity building sessions. They will be encouraged to form local citizen groups to provide input to the project. The project will promote to have these organizations consider holding their annual meetings in one of the pilot cities. Technical sessions on sustainable urban transport and GEF project output can be organized in their annual meetings.

Project tasks in pilot cities associated with major investment activities requiring public hearings will follow formal procedures and inform representatives of local citizen groups to attend as well as provide comments.

Annex 18: Stakeholder Participation Plan

GEF China World Bank Urban Transport Partnership Program

CUTPP design incorporates important innovations in the business-as-usual practice with respect to stakeholder participation in China's urban transport sector. The project supports several innovative features:

- **Public participation in the demonstration city projects.** The city demonstrations have been designed to build on successful experiences of extensive, independently conducted, structured public participation processes in the Bank financed projects in Liaoning and Xian (under preparation), which have materially influenced project conceptualization and design, and are being used to monitor implementation. Such public participation is not currently common Chinese practice, and CUTPP provides an important multi-city demonstration of for such activities.
- **Government to government interactions in program design.** A key focus of the national component of the project is to increase the level of coordination (especially across national government agencies) and transparency in government interactions in the urban transport sector. Though much remains to be done, the design stage has produced significant accomplishments. The coordination between different agencies on the Steering Committee has been unprecedented and sets the stage for a more effective, coordinated national government role in the sector. In addition to national government agencies, the China Association of Mayors (representing municipal governments) and the demonstration cities have been actively consulted during preparation. Additionally, the transparency in the project city demonstration process, that has balanced regional priorities with a substantive focus on identifying cities and city leaders with a track record and interest in promoting public transport, is also unusual in the Chinese context.
- **Large-scale planned dissemination and awareness-raising activities.** The project design includes a significant dissemination and awareness raising component which targets government officials at different levels as well as the general public.

In addition, CUTPP supports and enhances the role of non-governmental partners, including multilateral organizations and civil society organizations in the sector both at the National and City level.

Box 1: Public Participation Process. The Liaoning Experience

The objectives of the Bank-financed Liaoning Medium Cities Infrastructure Project are to enhance existing urban transport infrastructure in the Project cities in terms of mobility, access, and safety; and to increase the responsiveness of the urban transport systems to the needs of the population using public transport and non-motorized modes. The project covers the center cities of Panjin, Jinzhou, Fushun, Benxi, and Liaoyang municipalities, and the county town of Dengta in Liaoyang municipality.

Public participation, including open meetings, focus group discussions, individual interviews, and structured questionnaires implemented by an agency independent of the municipal governments financing the effort, was a key element of the project preparation: Phase I (project design and feasibility stage) identified key issues of concern to the public; and Phase II (post-appraisal stage) presented solutions for public review and comment.

Phase I Public Participation

Findings

- Poor pavement and drainage conditions of secondary roads and alleys
- Poor sidewalk conditions and walkability
- Lack of separation between MV and NMV
- Lack of street lighting and signage
- Gender differences in the needs associated with safety, security and public transport.

Outcomes

- Strong emphasis on sidewalks, needs of pedestrians, secondary road improvements, and traffic management, especially the separation of MV and NMV traffic
- Latent issues, e.g., missing street lights and poor public transport services, were picked up to address the needs of the vulnerable segments of the population

Phase II Public Participation

Findings

- The revised designs were found to satisfactorily reflect concerns raised during Phase I.
- Construction quality and fund utilization could be improved by greater involvement of the public.
- Concerns on construction impacts: noise, air quality, disruption, and resettlement
- Participation process strongly appreciated by the participants.

Outcomes

- The public will be informed of the project via multi-media. Various channels will be made available to the public to provide inputs into decision making to address concerns on construction quality and governance issues.
- Issues identified for further improvement, if not included in the project, will be specifically answered and/or addressed through future initiatives.

Public Participation in demonstration cities

Both international and the limited Chinese experience clearly indicate that an inclusive process can improve outcomes, provide more widespread benefits and minimize a concentration of negative impacts. In the project cities, as in most Chinese cities, more than 90 percent of the trips are made on non-motorized and public transport modes. Involving the public in the planning process can be particularly beneficial for public transport service and non-motorized facilities in such an environment. Recent experience in Liaoning (see box) and in the Bank-financed project in Xian, provides a successful pilot of how participation can influence project outcomes in a substantive manner. CUTPP has been designed to build on that experience.

The importance of and methods to effectively incorporate public participation in the planning process were an important element of discussions during project preparation. The final 3-page project notes produced by the chosen demonstration cities all include a specific section on plans for public participation and consultation.

- In general, the cities follow the Liaoning model and propose a three-stage participation process: that provides the public a role in determining urban transport priorities, comment on finalized project designs and monitor and evaluate project implementation.
- A variety of instruments will be used. Local leaders will discuss priorities and project concepts with the public in ‘Town-hall style’ open meetings. The experience in Liaoning suggests that such meetings provided a valuable opportunity for leaders to get a first-hand experience of the public’s priorities and also provided the public a rare opportunity to meet and ask questions of their leaders openly. This will be supplemented by targeted focus groups, to ensure input from particularly vulnerable groups such as migrants, the unemployed, elderly and the disabled. Some women’s only groups will be conducted; experience elsewhere in China suggests that there is an important gender element to urban transport problems, and many women are more comfortable speaking in women-only settings. Statistically valid surveys will be used to measure public satisfaction with policy, and project implementation.
- A number of cities have proposed the use of websites to provide and disseminate project data. The exceptionally high-quality website of the Jinan Public Transport Company ([Http://www.jnbus.com.cn](http://www.jnbus.com.cn)) already includes a link that informs users of the proposed GEF project and provides an update of progress.
- In Liaoning, GEF is being asked to co-finance a study to institutionalize the recent successful experience by developing standardized methods, protocols, and an evaluation framework to assess the role of participation on the planning process and its outcomes.

Innovations in government-to-government interaction

A central focus and objective of the national component is to enhance the manner in which stakeholders from different levels of government in China interact to produce urban transport outcomes. In this respect, the institutions and platforms created to design and implement CUTPP provide a potential platform for such coordination in the future. One important element of this effort is to support different National Government agencies coordinate their related interests towards an integrated approach in this sector. Indeed, the project preparation and the demonstration city selection process reflect an unprecedented level of coordination across several national level agencies in this respect. The key institutional elements underlying this approach are:

- **Project Steering Committee:** An inter-ministerial Steering Committee was formed in 2005 to guide Project implementation. The committee includes members from the Ministry of Finance (MOF), National Development and Reform Commission (NDRC), Ministry of Construction (MoCn), Ministry of Land and Resources (MLR), Ministry of Public Security (MPS), State Environmental Protection Administration (SEPA), and China Association of Mayors (that represents the cities). Since its establishment, the Steering Committee has held five meetings, providing overall guidance and advice and also facilitating coordination and cooperation across different agencies and stakeholders. The demonstration city selection, the choice of provinces, finalization of the invitation and the selection of demonstration cities, was conducted by the committee.
- **Technical Experts Group:** A Technical Expert Group was formed to support the Steering Committee. This experts group is formed by stakeholders from government agencies, non-government organizations, and academic institutions. Thus far, the group has focused on the demonstration city selection process.

In addition, the process of demonstration cities for CUTPP also provides a transparent, merit-based model for future interactions between national and local governments. This included:

- An invitation to Finance Departments of Chongqing City, Liaoning Province, Shandong Province, Guangzhou Province, Jiangxi Province, Henan Province, Shanxi Province, Shaanxi Province and the Autonomous District of Xinjiang in August 2006 to solicit proposals from municipalities interested in becoming CUTPP demonstration cities and their participation in the project preparation process.
- Extensive workshops and training to the cities to support them in developing proposals consistent with clearly defined appraisal criteria (Annex 19) and GEF criteria.
- Selection made by the inter-ministerial Steering Committee based on a technical appraisal conducted by the technical workgroup supporting the Steering Committee.

Plans for consultation activities in Component 1

The designs of all the components in Component 1 include an extensive stakeholder consultation process. In particular, extensive consultations with municipal and provincial governments, academics and civil society are planned as input into the development and finalization of the National Urban Transport Strategy.

This consultation will take place in the form of structured consultations at special-purpose workshops in different parts of the country as well as sessions at other urban transport related conferences. In addition, draft versions of the various input papers to

the strategy and the strategy documents will be posted on the project website for feedback.

All the technical material (standards, manuals, guidelines, and database) will be prepared using a similar consultation process. Additionally, all these materials will be subject to a peer review of international and domestic experts.

Plans for dissemination activities

The project includes a significant dissemination and awareness-raising component (Task 1C). This component includes focused activities targeting government and technical officials as well as awareness raising and marketing campaigns targeting the public (such as raising awareness of the social and environmental implications of current auto-oriented urban growth, piloting ‘car-free days’ and promoting the use of public transport). The following activities during project preparation form a core for future activities in this regard:

- **Project Website:** Project information is posted under the ICT website of <http://www.transdata.com.cn> and special web pages have been set up for the purpose of outreach and information dissemination. The web pages on the Urban Transport Development Strategy Partnership and Demonstration Program in China are designed initially to disseminate and promote program information, especially those materials on the program of inviting and submitting tenders for pilot city participation. This website helps to promote the selection of pilot cities publicly, equitably and fairly. It makes related information on the program accessible to stakeholders such as city agencies and professional organizations. It also plays the role of project advertisement and serves as a supplement to the official notifications and a further explanation to related program concepts.
- **Presentations at workshops and conferences.** The PMO gave introductory presentations of the proposed GEF project at the 2006 Academic Conference on Public Transportation and Urban Development and the 3rd Tongzhou Forum on Transportation, held at Tongji University in Shanghai on October 29, 2006. The conference was jointly sponsored by the Urban Planning Society of China. It was attended by around 200 participants from the academic, government, industrial or professional sectors in various cities of China.

Role of non-governmental agencies

Discussions had been initiated during preparation with UNEP, which was active and interested in this program. In light of GEF’s revised vision for different agencies, UNEP decided not to participate. Discussions are ongoing with GTZ to establish a partnership that leverages their strong base in training related activities in China (GTZ has provided a letter of support for CUTPP).

Coordination is also ongoing with the Energy Foundation, a civil society organization that is active in the urban transport sector in China. The Energy Foundation has financed and remains active in many of the Project cities including Xian, Chongqing and Jinan. Their efforts have been closely coordinated with the preparations of demonstration city proposals in Chongqing and Jinan and in Xian their efforts are closely integrated with the preparation of the Bank-financed project. They are also supporting elements of the National Program, specifically supporting elements of Ministry of Construction's campaign to promote public transport priority.

Coordination is also ongoing with ITDP, a US-based international civil society organization that is active in urban transport in China. ITDP is active in supporting the development of a BRT system in the demonstration city of Guangzhou. They have expressed an interest in supporting one of the Project cities to implement their BRT systems. They are also supporting the Ministry of Construction's campaign to promote public transport priority.

Finally, the PMO has also initiated discussions with the multilateral Clean-Air initiative Asia (CAI Asia) [a city based information gathering and advocacy non-governmental organization supported by the Asian Development Bank] under the auspices of the CAI-Asia led SUMA initiative (Sustainable Urban Mobility) that includes GTZ, ITDP and EMBARQ, a civil society based organization working in the urban transport sector that has been active in China in the recent past.

Annex 19: Selection Process for Proposals to be included in Demonstration City Component (Component 2)

GEF China World Bank Urban Transport Partnership Program

1. Preparation for Selecting Pilot Cities (provided by Steering Committee)

Dissemination and Promotion

In order to determine the beneficial demonstration cities publicly, equitably and fairly, it is necessary to publish the related information of the program to the society. According to the state of China, we think that there are two appropriate ways in the information announcement of pilot city selection, e.g. i) to issue official document by the Ministry of Finance and ii) to disseminate and promote the program through website publicity. The former way represents the seriousness of the program information and the intention of the government; the latter way plays the role of advertisement, and it is a supplement to the official document and a further explanation to related program concept.

A special column of the Urban Transport Development Strategy Partnership and Demonstration Program in China is set up to disseminate and recommend the project via the ICT website. Contents of the column include the dissemination and promotion materials of the program and information about inviting\submitting tenders for pilot city selection, including:

- Concepts about the “Urban Transport Development Strategy Partnership and Demonstration Program in China” Program
- Administration and organization institution of the “Urban Transport Development Strategy Partnership and Demonstration Program in China” Program
- Implementation plan of the “Urban Transport Development Strategy Partnership and Demonstration Program in China” Program
- Procedure of “Urban Transport Development Strategy Partnership and Demonstration Program in China” Program
- Procedure of selecting pilot city
- Criteria of selecting pilot city
- Background introduction for selecting pilot city
- Description on soliciting proposals from candidate cities

Under the guidance of the Joint Program Steering Committee (JPSC), through consultation with the Ministry of Finance (MOF), MOF has determined to issue the document (announcement) to altogether 9 (including 8 provincial and 1 municipal) Finance Departments (Bureau), based on the conventional practice of administration departments of the Chinese Government and the scope of candidate cities selected primarily. The purpose is to formally notify the provincial (municipal) Finance

Departments (Bureau) to submit the list of eligible cities that are willing to be considered as candidate demonstration cities for the “Urban Transport Development Strategy Partnership and Demonstration Program in China” Program. Each local government is required to submit 3 cities at most. The 9 local governments include: Chongqing City, Liaoning Province, Shandong Province, Guangzhou Province, Jiangxi Province, Henan Province, Shanxi Province, Shaanxi Province and the Autonomous District of Xinjiang. In terms of region, each of the Eastern, the Central and the Western region has 3 cities. Formal issuance was accomplished before the middle of August 2006.

2. Criteria for Selecting Pilot Cities

Minimum Requirements

Since urban transport problems have a close relationship with urban population, urban population must be an important factor that affects the urban transport complexity degree. Presently and in the future, the urban transport problem is and will be mainly concentrated on large and medium-scale cities. By the end of 2003, there are 660 cities in total in China. Assuming the threshold for large and medium cities as a population of 500,000, large and medium cities occupy 82.48% of the total number of all cities. In terms of region, the percentage of large city in the Eastern Region is up to 85.14%; the percentage of large city in the Central Region is 79.88%; the percentage of large city in the Western Region accounts for 79.63%. In terms of the number of cities, the cities with a population above 500,000 throughout China take up 34.09% of all cities. Consequently, taking into account of the following two considerations: the prominence of urban transport problems as well as the representative significance of cities, it is reasonable to regard a population of 500,000 as one of the minimum requirements to be selected as candidate cities.

The urgent desire of the local governments to smoothly solve its urban transport problems serves as an important precondition for the pilot program to be successful as well as an important basis for smooth city selection for the pilot program and manifestation of the effects after the pilot program has been accomplished in the future. Consequently, it will demonstrate its sincerity if the city has developed or/and implemented an Urban Development Plan and Overall Urban Transport Plan that are aimed to tackle the enlarging needs of public transport systems.

In order to implement the program successfully, it is necessary for the municipal government to possess some abilities to co-finance the program. As a result, we put forward minimum requirements on the total GDP within City Jurisdiction District and on the budgetary income in public finance of applicant cities, with the hope to lay out solid foundation for the pilot program to be implemented successfully. Among the 286 cities whose jurisdiction levels reaches area level or above, 162 cities have a total GDP of over 10 billion Yuan, and 66 cities have a budgetary income in public finance

of over 500 million Yuan. Lowering those requirements by a suitable amount for the less developed Middle and Western cities, nearly half of cities above the area level can fulfill those requirements.

Since the practical performance of municipal urban transport strategies can be reflected and measured by its urban transport programs and related actions that are actually implemented in the past few years and designed to enhance the use and development of public transport systems, therefore whether the general concept reflected by those programs and actions is consistent with the sustainability of urban transport construction and development can serve as an important measure for the quality of municipal administrators. And highly qualified municipal government is an important precondition to guarantee the successful implementation of the pilot program.

The minimum requirements are summarized below:

- Population above 500,000 people.
- The candidate cities should have adopted urban development and multi-modal transport master plans that reflect a significant need for an improved and expanded public transport system.
- The total amount of GDP for recent three years is above RMB10 billion Yuan, the budgetary income in public finance is generally above RMB500 million Yuan
- In the past 5 years, major urban transport projects have been carried out that have been successful in improving the over-all performance of the multi-modal transport system while promoting public transport use and development.

Appraisal Criteria

2.2.1 Candidate cities will be appraised on five aspects: organizational administration, financial priority given to public transport, policies and rules concerning public transport, planning and design and alternative programs. The requirement on organizational administration measures organizational and institutional abilities, benefiting the pilot program with solid organizational guarantee; the requirement on financial priority given to public transport measures the attention given to public transport, benefiting the pilot program with more fiscal input to public transport; the requirement on policies, rules and measures concerning public transport measures juristic abilities, benefiting the pilot program with juristic guarantee; the requirement on planning and design measures the abilities to conduct preliminary and fundamental preparations and the designing concepts, benefiting the pilot program with smooth process of city selection and successful implementation; the requirement on alternative programs mainly measures whether the priority

programs forwarded by the municipal governments are in accord with the city selecting concept of the “Urban Transport Development Strategy Partnership and Demonstration in China” Program as well as its financing plan and related commitments.

- 2.2.2 Each candidate city is “graded” according to the criteria and indices summarized in the following table.

Pilot City Appraisal Criteria and Scoring Table

Assessment Criterion	Assessment Issue	Evaluation Standard		Expert scoring of candidate
		Standards	Range of scores	
I. Organization and Management	1. The Quality of the institution that is responsible for public transport project development, implementation and construction: <ul style="list-style-type: none"> • Human resources • Administration/Management <ul style="list-style-type: none"> - Functions - procedures - systems 	The institution is well-staffed and organized in an outstanding fashion; Functions are well thought out and defined, all necessary management (e.g., budgeting and accounting) procedures and systems are in place and technically sound.	6-10	
		The institution is generally sound; Most functions are clearly defined, and procedures and systems are adequate.	1-5	
		Working functions are poorly defined. Management procedures and systems are poorly conceived and executed. There are loopholes in over-all management.	0	
	2. Level of coordination among departments with public transport related responsibilities; Quality of coordination mechanisms and procedures.	Each organization works with others closely and well; there are outstanding coordination mechanisms and procedures in place;	6-10	
		Each department has adequate coordination mechanisms and procedures;	1-5	
		Departments generally do not work well together and, for the most part, formal coordination and management mechanisms do not exist.	0	
	3. Project and construction supervision and management (e.g., inspection) procedures and systems for major transport and construction projects	All the necessary procedures and systems are in place, integrated and working well. They are technically sound and have been proven in actual practice.	6-10	
		There are some procedures and systems in place, but they are not well-integrated and there have been construction quality issues and cost over-runs.	1-5	
		There are few, un-integrated project and construction inspection, supervision, management procedures and systems in place; They have not been particularly successful in practice, and there have often been construction quality and cost control problems.	0	

	4. Planning and decision- making: Quality of decision- making procedures and information/data from planning process; Transparency of decision making	Decisions on programs and projects are always transparent and made on basis of sound environmental, economic, social and transport costs, benefits and impacts;	6-10	
		Decisions on programs and projects are usually but not always transparent; They are made on the basis of some quantitative analyses reflecting environmental, economic, social and transport costs, benefits and impacts, but there are technical gaps and some decisions appear to be arbitrary;	1-5	
		Decisions are neither transparent nor based on a range of criteria produced by scientific planning processes and procedures.	0	
II. Financial Priority given to Public Transport	5. Priority given to public transport infrastructure and assets in the city's budget. Proportion of GDP for prior three years spent on public transport and public transport-related infrastructure and equipment	The total investment amount for the continuous three years occupies more than 4% of the aggregated domestic GDP in the city in the corresponding years. Or the annual investment amounts are growing in real terms, and remaining synchronous development with the economic and social development of the city or lead them appropriately.	6-10	
		The total investment amount for the prior three years is 3%-4 of the aggregate domestic GDP in the city in the corresponding years; Or the annual investment amount is growing modestly, remaining consistent with the economic and social development of the city.	1-5	
		The total investment amount for the continuous three years is less than 3% of the ratio of the aggregated the domestic GDP in the city in the corresponding year; Annual investment is not growing and is not consistent with the economic and social development of the city.	0	
III. Pubic Transport Related policies, laws and regulations	6. Management and oversight system governing passenger transport, including taxis and public transport: <ul style="list-style-type: none"> - laws and regulations - enforcement mechanisms 	Governance of passenger transport in the city is working well; There is a well-structured, well-thought system of laws and regulations; Solid enforcement mechanisms are in place and working.	6-10	

		The municipal government is in process of drafting new policies, laws and regulations governing urban public passenger transport; Enforcement mechanisms are being updated and strengthened as well	1-5	
		The municipal government has not yet begun process of drafting new policies, laws and regulations for governing urban public passenger transport; Those that exist are out of date, not relevant in a market economy and poorly enforced.	0	
	7. The municipal government's approach to providing financial assistance for public transport and laws and regulations relating to the promotion of fair competition in the provision of public transport and participation of privately owned public transport providers.	There is a well conceived and transparent public transport financial assistance approach, reflecting sound transport, economic and social policy. The municipal government has issued related laws and regulations that promote effective, efficient competition in public transport and allow participation of privately owned section.	6-10	
		Financial assistance is provided for public transport, but not based on a rational set of social and economic policies that promote effectiveness and efficiency; The municipal government is drafting related law and regulations covering competition and privately provision of public transport services.	1-5	
IV. Planning and Design	8. The quality of the City's Master City Plan, Controlling Detailed Plan, Comprehensive Urban Transport Plan, Special Public Transport Plan, and Public Transport Development Plan.	There is no formal policy for providing financial assistance to public transport; all financial support is provided on an ad-hoc basis; There is no coherent set of laws and regulations related to the promotion of competition and private sector provision of public transport, and little or no progress is being made on the issue.	0	
		Each transport plan element has been recently updated; they are all consistent, promote public transport and a sustainable urban development and are approved for implementation.	5-10	
		Each plan has been formulated and, to a degree they promote public transport and sustainable development, but they have not yet been approved for implementation.	3-5	

		One or more plans are out of date; little or no progress is being made in updating them and insufficient attention is being paid to public transport and sustainable development.	0-2	
	9. The process for the preparation of each kind of plan noted above; Attention paid to analysis of environmental, social and economic issues in view of the specific characteristics of the given city. Contents of plan in terms of provisions related to social, environmental and economic development issues.	The planning process was transparent and included the effective, scientific consideration of all relevant social, environmental and economic factors; The analysis was considered in the formulation and adoption of the ultimate set of	6-10	
		The municipal government considered more than simple transport factors in preparing its transport plans. There are corresponding social, environmental and economic development provisions in the	1-5	
		The municipal government didn't attach importance to analysis and planning as a prelude to development and adoption of transport plans. Current plans do not reflect environmental, social and economic development analysis and have no provisions addressing those issues.	0	
V. Prepared Candidate Projects	10. The significance of implementing the project and the basic concept of selecting the project.	Accord with the target and the concept of the GEF completely.	6-10	
		Accord with the target and the concept of the GEF generally.	1-5	
		There are conflicts with the target and the concept of the GEF.	0	
	11. Municipalities demonstrated financial capacity both to implement the proposed candidate projects and sustain their operation and the operation and maintenance of the entire urban transport system in a good state of repair.	Financially strong; Excellent potential to cover all unexpected costs for the candidate projects, complete them and then operate them and the rest of the urban transport system at a good state of repair	7-10	
		Financial situation sufficient to cover initial implementation costs plus modest over-runs; May have difficulty with significant over runs and difficulty sustaining entire public transport system, including candidate projects at a satisfactory state of repair	3-6	

		Risk that the city cannot cover unexpected over-runs on the candidate projects, nor operate them properly, nor afford to keep them and the rest of the system going in a good state of repair.	0-2	
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3. Experts Evaluation

3.1 Experts Members

The members of the experts group include:

Jiao Tongshan	Vice Director of Chinese Traffic and Transportation Association, Senior Engineer of Professor Level
Wang Jingxia	Director of Urban Traffic Engineering and Technology Center of the Construction Ministry, Consultant of Chinese Academy of Urban Planning & Design, Senior Planner of Professor Level
Guo Xiaobei	Director of Institute of Comprehensive Transportation, National Development and Reform Commission, Researcher
Zhou Silin	Researcher, Traffic and Transportation Information Consultancy Center of Institute of Comprehensive Transportation, National Development and Reform Commission, Researcher
Ma Lin	Chief Engineer of Urban Traffic Engineering and Technology Center of the Construction Ministry, Senior Engineer of Professor Level
Zhao Jie	Vice Director of Urban Traffic Engineering and Technology Center of the Construction Ministry, Vice Director of Institute of Traffic, Chinese Academy of Urban Planning & Design, Senior Engineer of Professor Level
Lin Jianing	Chairman Assistant of Chinese Mayor Association, Commissary of Urban Consultancy Committee
Wang Wei	Director of Institute of Traffic, Southeast University, Professor
Xie Junqi	Member of the 10th CPPCC (Chinese People's Political Consultative Conference), Vice Director of China Land Surveying and Planning Institute
Liu Guohong	Manager of Land Planning Office, Planning Department, Ministry of Land and Resources
Tang Dagang	Director of Motor Vehicle Exhaust Supervision Center, National Environmental Protection Bureau

Li Wei

Dean Assistant, Institute of Environment, Beijing Normal University, Doctor, Professor

3.2 Evaluation Meeting

The program office submitted the collected program proposals of 18 candidate pilot cities to evaluation experts on October 9th, 2006. The “Candidate Pilot City Program Proposal” expert evaluation meeting was convened in 1601 Meeting Room, Guohong Mansion on October 19th, 2006. The experts made scoring and evaluations to candidate pilot cities. The main agenda including (A) Manager Wu Jinkang of International Department, Ministry of Finance made brief introductions to the experts for the progress of the subprogram of “Developing Criteria of Selecting Pilot City and Determining Beneficial Pilot City”, and proposed several requirements about the experts’ fair evaluation; (B) The program consultancy expert Zhou Silin made some complementary introductions about related work for pilot city evaluation; (C) The experts made evaluation and scoring.

3.3 Introduction to the Evaluation Results

3.3.1 Ranking of the Experts Scoring Results

The total ranking according to experts scoring results is as following: Guangzhou, Dongguan, Ji’nan, Chongqing, Luoyang, Zhongshan, Urumqi, Nanchang, Jiaozuo, Weihai, Changzhi, Linfen, Zhengzhou, Xianyang, Xian, Jinzhou, Datong, and Korla.

3.3.2 Analysis and Recommendation for Experts Scoring Results

Generally, the experts scoring results have embodied the basic principles and orientations for selecting pilot cities we’ve confirmed. As for the consideration that both Dongguan and Zhongshan are representative for City-Town-Integration regional cities, only one of them can be selected as pilot city. Considering the strategic orientation of related policy inclination of the country for Middle and Western Region, after discussing with related leaders, the program consultancy experts have determined the following 14 cities as pilot city shortlist recommended to the instruction committee:

Guangzhou, Dongguan, Ji’nan, Chongqing, Luoyang, Urumqi, Nanchang, Jiaozuo, Weihai, Changzhi, Linfen, Zhengzhou, Xianyang, Xian

3.3.3 Summary of Shortlisted Cities

In the shortlisted cities, cities in the Eastern Region include 4 cities of Guangzhou, Dongguan, Ji’nan, Weihai; cities in the Middle Region include 6 cities of Luoyang, Nanchang, Jiaozuo, Changzhi, Linfen, Zhengzhou; cities in the Western Region

include 4 cities of Chongqing, Urumqi, Xianyang, Xian; wherein there are one provincial city, five capital cities.

4. Steering Committee Meeting

4.1 Members of Steering Committee

Wu Jinkang	Manager of the Fourth Office of International Department, Ministry of Finance
Huang Wenhong	Vice Manager of the Fourth Office of International Department, Ministry of Finance
Wu Fan	Program Officer of the Fourth Office of International Department, Ministry of Finance
Yao Pengcheng	Manager of Urban Construction Office of Investment Department, National Development and Reform Commission
Guo Xiaobei	Director of Institute of Comprehensive Transportation, National Development and Reform Commission
Liu Liya	Vice Director of Traffic Consultancy Center, Institute of Comprehensive Transportation, National Development and Reform Commission
Han Aixing	Vice Director of Science and Technology Department, Ministry of Construction
Wang Jianqing	Manager of International Science and Technology Cooperation Office, Science and Technology Department, Ministry of Construction
Wang Changyuan	Vice Secretary-General of Chinese Mayor Association
Yang Jie	Director of International Department, Chinese Mayor Association
Shi Liping	Vice Director Officer, International Department, Ministry of Land and Resources
Li Pei	Manager of the Second Office, Foreign Economy Department, National Environmental Protection Bureau
Wang Jing	Manager of Order Office of Traffic Management Bureau, Ministry of Public Security

4.2 Pilot City Determination

The fifth introduction committee meeting was convened in the 205 Meeting Room of Guohong Hotel on December 21st, 2006. The meeting mainly discussed about proposed shortlist of pilot cities. The proposed 14 cities were determined as pilot cities in the 1st phase of this project by general consensus after discussion.

The pilot cities in the 1st stage of this program finally determined according to the preset flows for selecting pilot cities include:

Guangzhou, Dongguan, Ji'nan, Chongqing, Luoyang, Urumqi, Nanchang, Jiaozuo, Weihai, Changzhi, Linfen, Zhengzhou, Xianyang, Xian

Annex 20: Detailed City Data on Urban Transport
GEF China World Bank Urban Transport Partnership Program

1. Xian

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES
PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population ('000)						
Municipal total	7531.1	7417.263	7417.263	7165.784	7025.939	6948.369
City-proper total	5351.27	5332.127	5163.038	5102.553	4973.845	4898.783
Floating population	698.9	658.2	618.2	480	589.12	567.56
2. Population Growth Rate (%)						
Municipal total	1.5	0.0	3.5	2.0	1.1	0.99
City-proper total	3.6	3.3	1.2	2.6	1.5	
Floating	6	6.4	27	-18	5.6	7
Note:	Because of SARS, the growth rate of floating population dropped in 2003					
3. Area (square kilometers)						
Municipality	9983	9983	9983	9983	9983	9983
City proper	3547	3547	3547	3547	3547	3547
Build-up area	1790	1450	1370	1260	1230	1230
4. GDP (100 million yuan)						
Municipal total	1450.02	1270.14	1095.87	941.60	823.50	733.85
City-proper total	1335.5	1160.43	989.57	858.52	787.56	693.21
5. GDP growth last 5 years (%)						
Municipal total	13.0	13.1	13.5	13.5	13.3	13.1
City-proper total	15	16.3	151	10	13.5	15
6. Average disposable income in city proper (yuan)	10905	9628	8544	7748	7184	6705
7. Per Capita Income Growth (%)	13.3	12.7	10.3	7.9	7.1	5.3
8. Financial resources spent on infrastructure development(100 million yuan)						
2006						
Five years (2001-2006)	100	100	100	100	46	32
9. Financial resources spent on public transport infrastructure(10 thousand yuan)						
2006						
Five years (2001-2006)	100	200	400	800	1000	1200

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	For latest available year				
	2006	2005	2004	2003	2002
1. Transport Fares (Yuan)					
Metro: 4 km/8 km trip	-	-	-	-	-
Premium: 4 km/8 km trip	2\2	2\2	2\2	2\2	2\2
Standard: 4 km/8 km trip	1\1~2	1\1~2	1\1~2	1\1~2	1\1~2
Minibus: 4 km/8 km trip	1\2	1\2	1\2	1\2	1\2
Taxi: 4 km/8 km trip	9\15	6\12	6\12	6\12	6\12
2. Parking Charges at Daytime (city center)					
Car (Yuan/hour)	3~6	3~4	3~4	3~4	3~4
Motorcycle (Yuan per lot)	1.5	1.5	1.5	1.5	1.5
Bicycle: Standard/Luxury (Yuan per lot)	0.5	0.5	0.5	0.5	0.5
3. Parking Charges at Daytime (outside center)					
Car (Yuan/hour)	3~6	3~6	3~6	3~6	3~6
Motorcycle (Yuan per lot)	1	1	1	1	1
Bicycle: Standard/Luxury (Yuan per lot)	0.5	0.5	0.5	0.5	0.5

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years				
	2006	2005	2004	2003	2002
1. Length of road network(km)	1590	1457	1332	1274	999
City Proper	1410	1315.2	1270	1134	835
Primary (expy, major arterial)	456	343.6	280	180	108.4
Secondary	280	250.7	240	178	139.2
Access	674	720.9	750	776	695.8
2. Length of road with protected bicycle lane(km)	1020	1000	900	800	700
3. Length of road with exclusive bus lanes(km)	15	15	15	8	0
Bus lanes	15	15	15	8	0
BRT	0	0	0	0	0
4. Vehicle Fleet in city proper (number)	472856	423865	312647	242599	206653
Passenger cars	151068	132505	110120	90098	72755
Motorcycles	162200	167380	172634	191834	176960
Bus	6500	6200	5480	5125	3391
Public buses (including minibuses)	5200	5100	4400	4200	2573
Company bus	1300	1160	1080	925	818
Bicycles					
Electric bicycles	14000	13600	13200	12800	12000
Ordinary bicycles	686000	695000	680000	630000	650000
Trucks (large, and small)	81000	79600	78000	70781	64623
Other	102400	9500	8930	7946	7503
5. Traffic accident fatalities in city proper (people)					
Number of cyclists	531	567	521	545	511
Number of pedestrians	320	276	301	278	289
6. Growth rate in 5 years in city proper (%)					
Passenger cars	6.6	6.5	5.7	5.2	4.1
Motorcycles	4	3.8	3.6	3.4	4.2
Total	12	11	10	8	7
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	1. Urban and second ring road will ban motorcycles; 2. Motorcycle centralized processing registration procedures per month, unlike cars can be handled during working hours.				

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006	2005	Latest years 2004	2003	2002
1. Bus and trolley bus					
Number of Buses	4400	3600	3050	2790	2573
Route-kilometers	3689	3425	3208	2987	2864.45
Vehicle-kilometers ('000km/bus-year)	60	60	60	60	60
2. Trolleybus					
Number of Trolley buses	90	90	90	90	90
Route-kilometers	34	34	34	34	34
Vehicle-kilometers ('000km/bus-year)	60	58	60	56	60
3. Taxi					
Number of Taxis	10730	10463	10463	10430	10430
Taxi-kilometers ('000km/car-year)	100	100	100	100	100
4. Metro					
Number of Trains	0				
Route-kilometers	0				
Car-kilometers ('000)	0				

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	XIAN
UNIT OF MUNICIPALITY DEALING WITH UPT	Transportation Bureau, Municipal Committee, planning Bureau
SERVICES	
Number of routes	186
Network density(km/km ²)	2.21
% of population within 300 meters of a bus stop	24%
% of population within 500 meters of a bus stop	41%
OPERATORS	
Number of operators	20
SOE's share of buses	70%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(100 million yuan)	7
SOE Total Annual Costs (2005)(100 million yuan)	7.02
Annual Subsidy(100 million yuan)	0

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator	2006	2005	2004	2003	2002
1. Year of Data Collection					
2. Demands ('000 trips per day)					
Walk	100	110	110	100	90
Bicycle	290	290	300	300	290
Bus and Trolleybus	240	230	230	230	240
Motorcycle	130	130	130	130	130
Company Bus	90	90	80	90	90
Taxi	60	60	60	60	60
Passenger cars	40	40	40	40	30
Metro/light rail	0	0	0	0	0
Others	50	50	50	50	50

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. PROPORTION OF TRIP DISTANCE

Indicator Trip distance (km)	Walk	Bicycle	Proportion (%) Bus and Trolleybus	Taxi	Others
<1	94%	4%	2%	0	0
1-2	85	10	4	0	1
2-3	80	12	5	1	2
3-4	70	11	6	2	11
4-5	30	10	20	3	37
5-6	15	10	23	4	48
6-7	7	30	30	3	30
7-8	5	25	35	5	30
8-9	4	24	35	5	32
9-10	3	20	35	7	35
10-11	3	18	35	9	34
11-12	2	18	38	10	32
12-13	2	16	38	12	32
13-14	0	15	35	13	37
14-15	0	15	35	15	35
15-16	0	13	35	17	35
16-17	0	12	35	18	35
17-18	0	12	35	18	35
18-19	0	11	34	17	38
19-20	0	8	30	16	46
20-21	0	6	26	15	33
>21	0	3	25	10	62

2. Urumqi

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES
PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2001	2002	2003	2004	2005	2006
1. Population ('000)						
Municipal total	1690.301	1757.193	1815.296	1859.559	1941.461	2018.40
City-proper total	1368.832	1410.143	1429.386	1462.592	1514.437	1587.40
Floating population					242.802	300
2. Population Growth Rate (%)						
Municipal total	928.31	3.96	3.31	2.44	4.40	3.96
City-proper total	923.35	3.02	1.36	2.32	3.54	4.82
Floating						
3. Area (square kilometers)						
Municipality	10901	10901	10901	10901	10901	10901
City proper	1600	1600	1600	1600	1600	1600
Build-up area	166	167	169	173	176	235.8
4. GDP(万元)						
Municipal total	3112793	3489201	4042417	4808723	5625007	6540000
City-proper total	3112793	3489201	4042417	4808723	5625007	6540000
5. GDP growth last 5 years (%)						
Municipal total	9.50	10.40	12.50	12.50	13.60	14.00
City-proper total	9.50	10.40	12.50	12.50	13.60	14.00
6. Average disposable income in city proper(10 thousand)	348427	401131	461548	532937	587124	625440
7. Per Capita Income Growth (%)		7.52	3.45	6.89	7.34	8.61
8. Financial resources spent on infrastructure development(100 million yuan)						
2006						30.28
Five years (2001-2005)						128.39
9. Financial resources spent on public transport infrastructure(100 million yuan)						
2006						13.5
Five years (2001-2005)						65

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	Latest years					
	2001	2002	2003	2004	2005	2006
1. Transport Fares (Yuan/person trip)						
Metro: 4 km/8 km trip						
Premium: 4 km/8 km trip						
Standard: 4 km/8 km trip	1/1	1/1	1/1	1/1	1/1	1/1
Minibus: 4 km/8 km trip	1/1	1/1	1/1	1/1	1/1	1/1
Taxi: 4 km/8 km trip	7.3/12.5	7.3/12.5	7.3/12.5	7.3/12.5	7.3/12.5	7.3/12.5
2. Parking Charges at Daytime (city center)						
Car (Yuan/hour)						1.5
Motorcycle (Yuan per lot)						—
Bicycle: Standard/Luxury (Yuan per lot)						—
3. Parking Charges at Daytime (outside center)						
Car (Yuan/hour)						1.5
Motorcycle (Yuan per lot)						—
Bicycle: Standard/Luxury (Yuan per lot)						—

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	2001	2002	Latest years		2005	2006
			2003	2004		
1. Length of road network(km)	974.0	976.0	980.0	1033.0	1040.5	1050.0
City Proper						
Primary (expy, major arterial)						198.4
Secondary						264.6
Access						587.0
2. Length of road with protected bicycle lane(km)						65.0
3. Length of road with exclusive bus lanes(km)						
Bus lanes						15.0
BRT						
4. Vehicle Fleet in city proper (Number)	102324	117210	130775	131961	144346	154896
Passenger cars	45583	54652	60923	60748	79390	91258
Motorcycles	4414	5564	5784	5754	5843	5300
Bus	50199	61099	73271	73695	93189	95865
Public buses (including minibuses)						
Company bus						
Bicycles						
Electric bicycles						
Ordinary bicycles						
Trucks (large, and small)	29606	35920	39881	43047	31326	33008
Other	22519	20191	17623	15219	6479	6800
5. Traffic accident fatalities in city proper						
Number of cyclists						
Number of pedestrians						
6. Growth rate in 5 years in city proper (%)		14.55	11.57	0.91	9.39	6.5
Passenger cars		21.71	19.92	0.58	26.45	18.5
Motorcycles						
Total						
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.						

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2001	2002	2003	2004	2005	2006
1. Bus and trolley bus						
Number of Buses(Number)	3190	3311	3966	3985	3920	4017
Number of Buses(Vehicle)	2808	2260	1598	3582	3566	3658
Route-kilometers						701.8
Vehicle-kilometers (km/vehicle-day)						210
2. Trolleybus						-
Number of Trolleybuses						-
Route-kilometers						-
Vehicle-kilometers ('000)						-
3. Taxi						
Number of Taxis(Number)	6392	6404	6849	6900	7070	7145
Taxi-kilometers(km/car-day)						370
4. Metro						-
Number of Trains						
Route-kilometers						
Car-kilometers ('000)						

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	Urumqi					
UNIT OF MUNICIPALITY DEALING WITH UPT	Transportation Bureau					
	2001	2002	2003	2004	2005	2006
SERVICES						
Number of routes						129
Network density						3.67
% of population within 300 meters of a bus stop						n/a
% of population within 500 meters of a bus stop						n/a
OPERATORS						
Number of operators						13
SOE's share of buses						70%
FINANCIAL DATA – REPORTED						
SOE Total Annual Revenue (10 thousand yuan)	29607	30977	33907	36697	36839	38411
SOE Total Annual Costs (10 thousand yuan)	21952	21321	24980	25417	26251	27000
Annual Subsidy (10 thousand yuan)	300	300	200	200	180	0

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2006	2001
2. Demands ('000 trips per day)	5186.170	n/a
Walk	2112.327	
Bicycle	146.250	
Bus and Trolleybus	1732.699	
Motorcycle	54.973	
Company Bus	272.793	
Taxi	203.816	
Passenger cars	589.668	
Metro/light rail		
Others	73.644	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year:

PART VI. OTHER DATAS BY MODE

Indicator	Share(%)	Trip Time(minutes)
1. Year of Data Collection	2006	2006
2. Mode		
Walk	40.73	24 ^{*1}
Bicycle	2.82	
Bus and Trolleybus	33.41	45 ^{*2}
Ordinary Bus	30.63	
Mini Bus	2.78	
Motorcycle	1.06	
Company Bus	5.26	
school Bus	2.25	
Unit Bus	3.01	
Taxi	3.93	20 ^{*3}
Passenger cars	11.37	
Unit cars	3.27	
private cars	8.10	
Metro/light rail		
Others	1.42	
Total	100.00	
Notes	Only the dates of trip time available ^{*1} the date of walk includes bicycle ^{*2} the date of Bus Trolleybus includes ordinary bus and minibus ^{*3} the date of taxi includes passenger cars	

3. Guangzhou

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2001	2002	2003	2004	2005	2006
1. Population ('000)						
Municipal total					7505	
City-proper total					6173	
Floating population					3670	
2. Population Growth Rate (%)						
Municipal total					3.21	
City-proper total					2.76	
Floating						
3. Area (square kilometers)						
Municipality					7434	
City proper					3725	
Build-up area					773.6	
4. GDP(Billion Yuan)						
Municipal total					551.5	
City-proper total					210.3	
5. GDP growth last 5 years (%)						
Municipal total					13.82	
City-proper total						
6. Average disposable income in city proper(yuan)					18287	
7. Per Capita Income Growth (%)					8.3	
8. Financial resources spent on infrastructure development(Billion yuan)						
2006						
Five years (2001-2006)	13.3	13.8	16	19.9	23.2	25.3
9. Financial resources spent on public transport infrastructure(Billion yuan)						
2006						
Five years (2001-2006)				5.24	7.02	n/a

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	Year 2006
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	0.45
Premium: 4 km/8 km trip	0—1.5
Standard: 4 km/8 km trip	2
Minibus: 4 km/8 km trip	not any
Taxi: 4 km/8 km trip(Yuan/km)	2.6
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	2.5—10
Motorcycle (Yuan per lot)	1—4
Bicycle: Standard/Luxury (Yuan per lot)	0.5—2
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	2—4
Motorcycle (Yuan per lot)	1—2
Bicycle: Standard/Luxury (Yuan per lot)	0.5-1

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years 2006
1. Length of road network(km) City Proper Primary (expy, major arterial) Secondary Access	 794 289 2718
2. Length of road with protected bicycle lane	n/a
3. Length of road with exclusive bus lanes(km) Bus lanes BRT	 5.3 0
4. Vehicle Fleet in city proper (number) Passenger cars Motorcycles Bus Public buses (including minibuses) Company bus Bicycles Electric bicycles Ordinary bicycles Trucks (large, and small) Other	 283031 933194 7960 N/a 0 N/a 186284 18139
5. Traffic accident fatalities in city proper Number of cyclists Number of pedestrians	 204 437
6. Growth rate in 5 years in city proper (%) Passenger cars Motorcycles Total	 10.4 -2.3 3.0
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	canceled from 2007

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	Year 2006
1. Bus and trolley bus Number of Buses Route-kilometers Vehicle-kilometers (Million km)	 8130 6852 741.25
2. Trolleybus Number of Trolleybuses Route-kilometers Vehicle-kilometers ('000)	 279 154.55 15844
3. Taxi Number of Taxis Taxi-kilometers (Billion km)	 16024 2.13
4. Metro Number of Trains Route-kilometers Car-kilometers ('000)	 83 116

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	GUANGZHOU
UNIT OF MUNICIPALITY DEALING WITH UPT	GZ Communication Commission
SERVICES	
Number of routes	397
Network density(km/km ²)	3.4
% of population within 300 meters of a bus stop	60.2%
% of population within 500 meters of a bus stop	n/a
OPERATORS	
Number of operators	15 bus companies, 28,000 staff (original 8 districts)
SOE's share of buses	61%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue(million yuan,2006)	2132
SOE Total Annual Costs (million yuan,2006)	1962
Annual Subsidy(million yuan,2006)	74.1

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator	2005	2001
1. Year of Data Collection	2005	2001
2. Demands ('000 trips per year)		N/a
Walk	2208020	
Bicycle	525820	
Bus and Trolleybus	1813850	
Motorcycle	656060	
Company Bus	115080	
Taxi	387300	
Passenger cars	1048880	
Metro/light rail	213540	
Others	142010	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCE BY MODE

Indicator	Year 2005
1. Year of Data Collection	Year 2005
2. Demands (km per trip)	
Walk	1.48
Bicycle	3.17
Bus and Trolleybus	7.95
Motorcycle	5.01
Company Bus	13.74
Taxi	6.1
Passenger cars	8.78
Metro/light rail	8.37
Others	

4. Changzhi

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2001	2002	2003	2004	2005	2006
1. Population ('000)						
Municipal total					3,234	
City-proper total					530.8	
Floating population					69,947	
2. Population Growth Rate (%)						
Municipal total					0.55	
City-proper total					0.57	
Floating					101.9	
3. Area (square kilometers)						
Municipality					13,896	
City proper					45.30	
Build-up area					44.66	
4. GDP(million yuan)						
Municipal total					46,940	
City-proper total					7,337	
5. GDP growth last 5 years (%)						
Municipal total					11.5	
City-proper total					12.5	
6. Average disposable income in city proper(yuan)					10,160	
7. Per Capita Income Growth (%)					11.3	
8. Financial resources spent on infrastructure development (thousand yuan)						
2006						
Five years (2001-2006)	76,700	97,000	111,400	213,000	349,500	360,700
9. Financial resources spent on public transport infrastructure (thousand yuan)						
2006						
Five years (2001-2006)	46,450	46,220	76,800	138,000	209,000	234,000

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	N/A
Premium: 4 km/8 km trip	N/A
Standard: 4 km/8 km trip	1 / 1
Minibus: 4 km/8 km trip	1 / 1
Taxi: 4 km/8 km trip	6.4 / 11.2
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	2
Motorcycle (Yuan per lot)	0.5
Bicycle: Standard/Luxury (Yuan per lot)	0.2 / 0.4
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	2
Motorcycle (Yuan per lot)	0.5
Bicycle: Standard/Luxury (Yuan per lot)	0.2 / 0.4

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years				
	2002	2003	2004	2005	2006
1. Length of road network (km)					
City Proper					
Primary (expy, major arterial)				75.4	
Secondary				27.35	
Access				30.03	
2. Length of road with protected bicycle lane (km)				30	
3. Length of road with exclusive bus lanes					
Bus lanes				N/A	
BRT				N/A	
4. Vehicle Fleet in city proper (number)					
Passenger cars				37,567	
Motorcycles				68,947	
Bus					
Public buses (including minibuses)				312	
Company bus				104	
Bicycles					
Electric bicycles				N/A	
Ordinary bicycles				400,000	
Trucks (large, and small)				35,039	
Other				9,828	
5. Traffic accident fatalities in city proper (person)					
Number of cyclists				4	
Number of pedestrians				5	
6. Growth rate in 5 years in city proper (%)					
Passenger cars	30.7	28.1	46.9	29.1	20.9
Motorcycles	17.9	16.4	26	5.5	2.7
Total	21.0	19.4	31.9	12.9	9.2
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.					

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	
1. Bus and trolley bus	
Number of Buses	312
Route-kilometers	
Municipal	576
City Proper	154
Vehicle-kilometers ('000)	57.663
2. Trolleybus	-
Number of Trolleybuses	
Route-kilometers	
Vehicle-kilometers ('000)	
3. Taxi	
Number of Taxis	1800
Taxi-kilometers ('000)	594
4. Metro	-
Number of Trains	
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	Changzhi
UNIT OF MUNICIPALITY DEALING WITH UPT	Construction Bureau
SERVICES	
Number of routes	23
Network density (km/km ²)	3.12
% of population within 300 meters of a bus stop	N/A
% of population within 500 meters of a bus stop	N/A
OPERATORS	
Number of operators	1 Bus Company, 11 Taxi Companies
SOE's share of buses	100%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(10 thousand yuan)	6,600
SOE Total Annual Costs (2005)(10 thousand yuan)	7,048
Annual Subsidy(10 thousand yuan)	500

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2005	2001
2. Demands ('000 trips per day)		N/a
Walk	283	
Bicycle	498	
Bus and Trolleybus	341	
Motorcycle	52	
Company Bus	N/A	
Taxi	160	
Passenger cars	114	
Metro/light rail	N/A	
Others	9	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	
2. Demands (km per trip)	N/a
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

5. Dongguan

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population ('000)						
Municipal total	7556	7506.3	6489.2	5994.1	5898.4	6117.1
City-proper total	882	862.9	829.5	782.9	773.9	747.1
Floating population	13631	11560	11313.1	10862.4	9295.9	7729.4
2. Population Growth Rate (%)						
Municipal total	0.59	15.67	8.26	1.62	-3.58	
City-proper total	2.21	4.03	5.95	1.16	3.59	
Floating	17.92	2.18	4.15	16.85	20.27	15.60
3. Area (square kilometers)						
Municipality	2456	2456	2456	2456	2456	2456
City proper	233	233	233	233	233	233
Build-up area	132.8	127.6	124.2	117.8	111.7	110.5
4. GDP (billion Yuan)						
Municipal total	262.46	218.16	180.6	145.25	118.69	99.19
City-proper total	38.16	31.72	25.22	17.91	13.44	10.26
5. GDP growth last 5 years (%)						
Municipal total	20.31	20.8	24.34	22.38	19.66	16.94
City-proper total	20.3	25.77	40.82	33.26	30.99	28.51
6. Average disposable income in city proper (yuan)	25320	22882	20526	18471	16949	16938
7. Per Capita Income Growth (%)	10.65	11.48	11.13	8.98	0.06	
8. Financial resources spent on infrastructure development ('000 Yuan)						
2006						
Five years (2001-2006)	2781018	3573780.3	3076289.8	2615687.5	1931936.1	1829700
9. Financial resources spent on public transport infrastructure ('000 Yuan)						
2006						
Five years (2001-2006)	729466.4	845641.7	1710834.7	687656.8	90356.7	91817.5

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	LATEST YEARS					
	2006	2005	2004	2003	2002	2001
1. Transport Fares (Yuan)						
Metro: 4 km/8 km trip	0	0	0	0	0	0
Premium: 4 km/8 km trip	2/2	2/2	2/2	2/2	2/2	2/2
Standard: 4 km/8 km trip	2/2	2/2	2/2	2/2	2/2	2/2
Minibus: 4 km/8 km trip	2/2	2/2	2/2	2/2	2/2	2/2
Taxi: 4 km/8 km trip	7/22	7/22	7/22	7/22	7/22	7/22
	0	0	0	0	0	0
2. Parking Charges at Daytime (city center)						
Car (Yuan/hour)	3-5	3-5	3-5	0	0	0
Motorcycle (Yuan per lot)	1	1	1	0	0	0
Bicycle: Standard/Luxury (Yuan per lot)	0	0	0	0	0	0
3. Parking Charges at Daytime (outside center)						
Car (Yuan/hour)	3-5	3-5	3-5	0	0	0
Motorcycle (Yuan per lot)	1	1	1	0	0	0
Bicycle: Standard/Luxury (Yuan per lot)	0	0	0	0	0	0

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years				
	2006	2005	2004	2003	2002
1. Length of road network (km)					
City Proper	546	515	541	207	140
Primary (expy, major arterial)	123.4	110.7	120.4	64.3	56.4
Secondary	253.56	239.21	251.05	94.61	32.5
Access	169.04	159.47	167.37	63.07	51.1
2. Length of road with protected bicycle lane	0				
3. Length of road with exclusive bus lanes	0				
Bus lanes					
BRT					
4. Vehicle Fleet in city proper (number)	185497	170993	160551	150936	137508
Passenger cars	46116	33336	24483	16697	11095
Motorcycles	116195	116139	116107	116038	110217
Bus					
Public buses (including minibuses)	653	543	348	202	86
Company bus	583	485	310	180	77
Bicycles					
Electric bicycles					
Ordinary bicycles					
Trucks (large, and small)	21950	20490	19303	17819	16033
Other					
5. Traffic accident fatalities in city proper	124	148	160	181	196
Number of cyclists	44	34	23	36	29
Number of pedestrians	11	45	56	49	50
6. Growth rate in 5 years in city proper					
Passenger cars	38.34	36.15	46.63	50.49	31.41
Motorcycles	0.02	0.02	0.06	5.28	10.36
Total					
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.					

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	Latest years				
	2006	2005	2004	2003	2002
1. Bus and trolley bus					
Number of Buses	653	543	348	202	86
Route-kilometers	1079	890	575	340	142
Vehicle-kilometers ('000)	310	295	280	265	255
2. Trolleybus					
Number of Trolleybuses	0				
Route-kilometers					
Vehicle-kilometers ('000)					
3. Taxi					
Number of Taxis	794	835	635	635	635
Taxi-kilometers ('000)	512	495	483	490	470
4. Metro					
Number of Trains	0				
Route-kilometers					
Car-kilometers ('000)					

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	DONGGUAN				
UNIT OF MUNICIPALITY DEALING WITH UPT	The Bureau of Traffic				
YEAR	2006	2005	2004	2003	2002
SERVICES					
Number of routes	56	48	38	14	14
Network density	2.04	1.7	1.09	0.63	0.27
% of population within 300 meters of a bus stop	80	67	43	25	11
% of population within 500 meters of a bus stop	95	79	51	29	13
OPERATORS					
Number of operators	78	77	71	69	61
SOE's share of buses	1.4	1.5	2	8.2	8.8
FINANCIAL DATA – REPORTED					
SOE Total Annual Revenue (2005) (million Yuan)		169.13			
SOE Total Annual Costs (2005) (million Yuan)		184.49			
Annual Subsidy (million Yuan)		8.145			

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2006	2001
2. Demands ('000 trips per day)	9379.4	N/a
Walk	3785.5	
Bicycle	1674.2	
Bus and Trolleybus	646.2	
Motorcycle	2109.4	
Company Bus	618.1	
Taxi	42.2	
Passenger cars	437.1	
Metro/light rail	0	
Others	66.6	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	N/a
2. Demands (km per trip)	
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

6. Xianyang

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population (10 thousand)						
Municipal total	498					
City-proper total	85.62					
Floating population	25.13					
2. Population Growth Rate (%)						
Municipal total	3.1					
City-proper total	3					
Floating	3.3					
3. Area (square kilometers)						
Municipality	10196					
City proper	523					
Build-up area	65					
4. GDP *(100 million)						
Municipal total	484					
City-proper total	205					
5. GDP growth last 5 years (%)						
Municipal total	9	12	18	15	11	
City-proper total	8	22	14	17	12	
6. Average disposable income in city proper (yuan)	8780					
7. Per Capita Income Growth (%)	6.3					
8. Financial resources spent on infrastructure development (10 thousand)						
2006						
Five years (2001-2006)	36614	37213	35234	37889	36628	39369
9. Financial resources spent on public transport infrastructure (10 thousand)						
2006						
Five years (2001-2006)	530	2174	887	787	484	818

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	latest year
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	-
Premium: 4 km/8 km trip	-
Standard: 4 km/8 km trip	1/1
Minibus: 4 km/8 km trip	1/1
Taxi: 4 km/8 km trip	5/9.6
2. Parking Charges at Daytime (city center)	
Car (Yuan/time)	5
Motorcycle (Yuan per lot)	1
Bicycle: Standard/Luxury (Yuan per lot)	0.3/0.5
3. Parking Charges at Daytime (outside center)	
Car (Yuan/time)	3
Motorcycle (Yuan per lot)	1
Bicycle: Standard/Luxury (Yuan per lot)	0.3/0.5

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years				
	2006	2005	2004	2003	2002
1. Length of road network (km)					
City Proper	185.5				
Primary (expy, major arterial)	109.7				
Secondary	67.5				
Access	8.3				
2. Length of road with protected bicycle lane (km)	10.15				
3. Length of road with exclusive bus lanes (km)					
Bus lanes	0.5				
BRT	0				
4. Vehicle Fleet in city proper (number)					
Passenger cars	10331				
Motorcycles	81661				
Bus					
Public buses (including minibuses)	530				
Company bus	215				
Bicycles					
Electric bicycles	8600				
Ordinary bicycles	498000				
Trucks (large, and small)	18042				
Other	9237				
5. Traffic accident fatalities in city proper					
Number of cyclists (dead persons)	8	9	10	4	3
Number of pedestrians (dead persons)	10	18	14	12	8
6. Growth rate in 5 years in city proper (%)					
Passenger cars	16.18				
Motorcycles	37.49				
Total	25.12				
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	Only prohibit in one road – Renmin zhong Lu which the most flourishing road of the city with 3km.				

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006
1. Bus and trolley bus	
Number of Buses	530
Route-kilometers	430.5
Vehicle-kilometers ('000)	35100
2. Trolleybus	
Number of Trolleybuses	0
Route-kilometers	
Vehicle-kilometers ('000)	
3. Taxi	
Number of Taxis	1305
Taxi-kilometers ('000)	142900
4. Metro	
Number of Trains	0
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	XIANYANG
UNIT OF MUNICIPALITY DEALING WITH UPT	Public utilities bureau
SERVICES	
Number of routes	24
Network density (km/k m ²)	2.33
% of population within 300 meters of a bus stop	57.3
% of population within 500 meters of a bus stop	78.1
OPERATORS	
Number of operators	1 Bus Company, 136 individuals
SOE's share of buses	74
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(10 thousand yuan)	6209
SOE Total Annual Costs (2005)(10 thousand yuan)	6815
Annual Subsidy(10 thousand yuan)	290

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator						
1. Year of Data Collection	2001	2002	2003	2004	2005	2006
2. Demands ('000 persons per day)						
Walk	204	207	213	219	228	234
Bicycle	265.2	269.1	276.9	284.7	296.4	304.2
Bus and Trolleybus	54.4	55.2	56.8	58.4	60.8	62.4
Motorcycle	23.8	24.2	24.9	25.6	26.6	27.3
Company Bus	27880	28290	29110	29930	31160	31980
Taxi	34.3	34.5	35.5	36.5	38	39
Passenger cars	20.4	20.7	21.3	21.9	22.8	23.4
Metro/light rail	0					
Others	10.2	10.4	10	11	11.4	11

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	2006
1. Year of Data Collection	
2. Demands (km per trip)	
Walk	1.8
Bicycle	3.6
Bus and Trolleybus	11.5
in city proper	3.5
Motorcycle	4
Company Bus	
Taxi	4
Passenger cars	5
Metro/light rail	
Others	

7. Zhengzhou

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year	
	2006	2005
1. Population ('000)		
Municipal total	7240	7159.915
City-proper total	3090	3021.709
Floating population	-	615
2. Population Growth Rate (%)		
Municipal total	1.1	1.2
City-proper total	2.3	2.4
Floating	-	14.1
3. Area (square kilometers)		
Municipality	7446.2	7446.2
City proper	1010.3	1010.3
Build-up area	282	262
4. GDP (100 million)		
Municipal total	2001.5	1660.6
City-proper total	888.5	762.8
5. GDP growth last 5 years (%)		
Municipal total	14.6	13.7
City-proper total	-	-
6. Average disposable income in city proper	12187	10997
7. Per Capita Income Growth (%)	11	13.6
8. Financial resources spent on infrastructure development (10 thousand)		
2006	587452	
Five years (2001-2005)	1824336	
9. Financial resources spent on public transport infrastructure (10 thousand)		
2006	18560.82	
Five years (2001-2005)	63851.76	

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	2006
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	-
Premium: 4 km/8 km trip	2/2
Standard: 4 km/8 km trip	1/1
Minibus: 4 km/8 km trip	1/1
Taxi: 4 km/8 km trip	9/15
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	4
Motorcycle (Yuan per lot)	2
Bicycle: Standard/Luxury (Yuan per lot)	0.1
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	4
Motorcycle (Yuan per lot)	2
Bicycle: Standard/Luxury (Yuan per lot)	0.1

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years		
	2006	2005	2004
1. Length of road network (km)	1228.5	1089.7	929.3
City Proper			
Primary (expy, major arterial)	592	541	458.7
Secondary & Access	636.5	548.7	470.6
2. Length of road with protected bicycle lane (km)	1023	975	929
3. Length of road with exclusive bus lanes	-		
Bus lanes			
BRT			
4. Vehicle Fleet in city proper (number)	345305	294405	260045
Passenger cars	211930	164700	135417
Motorcycles	96233	95748	93045
Bus			
Public buses (including minibuses)	3282	2899	2596
Company bus	-	-	-
Bicycles (Electric & Ordinary)	2,000,000	1,970,000	1,910,000
Electric bicycles			
Ordinary bicycles			
Trucks (large, and small)	33357	28973	26422
Other	16800	16400	16100
5. Traffic accident fatalities in city proper			
Number of cyclists	63	65	70
Number of pedestrians	52	60	61
6. Growth rate in 5 years in city proper			
Passenger cars	28.7	21.6	20.9
Motorcycles	0.5	2.9	0.5
Total	17	13	12
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.			

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006	2005	2004
1. Bus and trolley bus			
Number of Buses	3282	2899	2596
Route-kilometers	2825	2682	2152
Vehicle-kilometers ('000)	180700	169678	150158
2. Trolleybus			
Number of Trolleybuses	81	81	66
Route-kilometers	29.35	29.35	29.35
Vehicle-kilometers ('000)	4882	5177	4840
3. Taxi			
Number of Taxis	10607	10601	10757
Taxi-kilometers ('000)	1209198	1208514	1226298
4. Metro	—		
Number of Trains			
Route-kilometers			
Car-kilometers ('000)			

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	ZHENGZHOU
UNIT OF MUNICIPALITY DEALING WITH UPT	Zhengzhou municipal administration bureau
YEAR	2006
SERVICES	
Number of routes	185
Network density (km/k m ²)	4.01
% of population within 300 meters of a bus stop	68%
% of population within 500 meters of a bus stop	96%
OPERATORS	
Number of operators	Zhengzhou Public Transportation General Company (state-owned), Sino-foreign investment Tongli Co., Ltd. (state-owned assets accounting for 51%), Henan Bashi Industry Co., Ltd.(private-owned) and 58 taxi companies
SOE's share of buses	
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (million yuan)	515
SOE Total Annual Costs (million yuan)	533
Annual Subsidy (million yuan)	50

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator					
1. Year of Data Collection	2005	2004	2003	2002	2001
2. Demands ('000 trips per day)	9,384	8,422	8,005	7,773	7,492
Walk	2,728	2,455	2,336	2,272	2,194
Bicycle	3,960	3,593	3,468	3,446	3,387
Bus and Trolleybus	1,084	939	860	781	703
Motorcycle	401	383	375	382	381
Company Bus	45	39	36	33	29
Taxi	473	451	442	434	425
Passenger cars	665	545	464	402	350
Metro/light rail	0	0	0	0	0
Others	27	24	23	22	22

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	N/a
2. Demands (km per trip)	
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

8. Jiaozuo

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population ('000)						
Municipal total	3551.3					
City-proper total	818.5					
Floating population	64					
2. Population Growth Rate (%)						
Municipal total	0.88					
City-proper total	0.92					
Floating	12					
3. Area (square kilometers)						
Municipality	4071.					
City proper	424.					
Build-up area	77.2.					
4. GDP (Billion yuan)						
Municipal total	69.89					
City-proper total	14.26					
5. GDP growth last 5 years (%)						
Municipal total	15.70					
City-proper total	1.90					
6. Average disposable income in city proper (yuan per capita)	9628					
7. Per Capita Income Growth (%)	14.20					
8. Financial resources spent on infrastructure development (million yuan)						
2006						
Five years (2001-2006)	445.18	425.73	697.15	563.23	353.69	114.43
9. Financial resources spent on public transport infrastructure (million yuan)						
2006						
Five years (2001-2006)	19.54	2.39	17.33	10.11	18.30	6.22

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	2006
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	—
Premium: 4 km/8 km trip	1.5/2
Standard: 4 km/8 km trip	1
Minibus: 4 km/8 km trip	—
Taxi: 4 km/8 km trip	6.2/11
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	3
Motorcycle (Yuan per lot)	0.5
Bicycle: Standard/Luxury (Yuan per lot)	0.2/0.6
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	—
Motorcycle (Yuan per lot)	—
Bicycle: Standard/Luxury (Yuan per lot)	—

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years 2006
1. Length of road network (km)	
City Proper	366
Primary (expy, major arterial)	130
Secondary	150
Access	86
2. Length of road with protected bicycle lane (km)	250
3. Length of road with exclusive bus lanes (km)	
Bus lanes	549
BRT	-
4. Vehicle Fleet in city proper (number)	
Passenger cars	23593
Motorcycles	45787
Bus	4910
Public buses (including minibuses)	498
Company bus	4412
Bicycles	530000
Electric bicycles	130000
Ordinary bicycles	400000
Trucks (large, and small)	16842
Other	—
5. Traffic accident fatalities in city proper	
Number of cyclists	42
Number of pedestrians	8
6. Growth rate in 5 years in city proper	
Passenger cars	18.11
Motorcycles	0
Total	4.11
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	<ol style="list-style-type: none"> 1. Motorcycles without license are banned in city proper since 2001. 2. Since 2001, new motorcycle license is not issued, so the total number of motorcycle will remain at the original level.

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006
1. Bus and trolley bus	
Number of Buses	498
Route-kilometers	549.2
Vehicle-kilometers (million)	27.96
2. Trolleybus	-
Number of Trolleybuses	
Route-kilometers	
Vehicle-kilometers ('000)	
3. Taxi	1395
Number of Taxis	17.58
Taxi-kilometers (million)	
4. Metro	-
Number of Trains	
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	JIAOZUO
UNIT OF MUNICIPALITY DEALING WITH UPT	Municipal Bureau of Construction
SERVICES	
Number of routes	36
Network density (km/km ²)	4.8
% of population within 300 meters of a bus stop	30
% of population within 500 meters of a bus stop	40
OPERATORS	
Number of operators	1
SOE's share of buses	10.24%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(million yuan)	7504
SOE Total Annual Costs (2005)(million yuan)	6619.88
Annual Subsidy(million yuan)	124

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2005	2001
2. Demands ('000 trips per day)		N/a
Walk	659	
Bicycle	980	
Bus and Trolleybus	177	
Motorcycle	41	
Company Bus	10	
Taxi	140	
Passenger cars		
Metro/light rail	—	
Others	52	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	N/a
2. Demands (km per trip)	
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

9. Luoyang

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES
PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2001	2002	2003	2004	2005	2006
1. Population (10 thousand)						
Municipal total	628.4	632.1	636.2	638.4	641.7	646
City-proper total	143.1	144.7	145.7	146.6	147.4	151
Floating population					30	n/a
2. Population Growth Rate (%)						
Municipal total	0.7	0.6	0.6	0.3	0.5	0.67
City-proper total	0.6	1.1	0.7	0.6	0.5	2.4
Floating					n/a	n/a
3. Area (square kilometers)						
Municipality					15208.6	15208.6
City proper					544	544
Build-up area					133.34	133.34
4. GDP (Billion Yuan)						
Municipal total	465.2	535	686.3	905.2	1112.4	1331.7
City-proper total	220.3	250.6	318.3	401	443.7	526.1
5. GDP growth last 5 years (%)						
Municipal total	8.6	11	16.6	16.2	15.1	15.6
City-proper total	9.2	10.9	13.9	13.4	14.2	13.8
6. Average disposable income in city proper (yuan)	6184.9	7161.4	8005.2	9032.4	10175.3	11490
7. Per Capita Income Growth (%)	8.5	15.8	11.8	12.8	12.7	12.9
8. Financial resources spent on infrastructure development (10 thousand yuan)						
2006						
Five years (2001-2006)	25287	24920	82000	274900	280623	255640
9. Financial resources spent on public transport infrastructure (10 thousand yuan)						
2006						
Five years (2001-2006)	1550	1550	1350	1800	2050	2360

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	2005
1. Transport Fares (Yuan/km)	
Metro: 4 km/8 km trip	-
Luxurious passenger cars: 4 km/8 km trip	
Premium:	
primary	0.762-1.002/1.524-2.004
primary including tolls	0.862-1.102/1.724-2.204
secondary	0.802-1.042/1.604-2.804
highway	0.962-1.202-/1.924-2.404
sleeping passenger cars:	
primary	0.642-1.002/1.284-2.004
primary including tolls	0.742-1.102/1.484-2.204
secondary	0.722-1.042/1.444-2.084
highway	0.842-1.202/1.684-2.404
Standard passenger cars: 4 km/8 km trip	
big-sized	
primary	0.322/0.644
primary including tolls	0.422/0.844
secondary	0.362/0.724
small and middle-sized	
primary	0.042/0.084
primary including tolls	0.462/0.924
secondary	0.402/0.804
Medium passenger cars: 4 km/8 km trip	
big-sized cars	
primary	0.522/1.044
primary including tolls	0.622/1.244
secondary	0.562/1.124
highway	0.722/1.444
small and middle-sized	
primary	0.602/1.204
primary including tolls	0.702/1.404
secondary	0.642/1.284
highway	0.802/1.604
Taxi: 4 km/8 km trip	7-8.6/11-15
2. Parking Charges at Daytime (city center)	
Car (Yuan/time)	3
Motorcycle (Yuan per lot)	0.3
Bicycle: Standard/Luxury (Yuan per lot)	0.1/0.2
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	3
Motorcycle (Yuan per lot)	0.3
Bicycle: Standard/Luxury (Yuan per lot)	0.1/0.2

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	2001	2002	Latest years 2003	2004	2005	2006
1. Length of road network (km)						
City Proper	355.94	379.92	411.65	464.54	528.93	583.7
Primary (expy, major arterial)	165.89	174.38	192.63	207.23	234.09	255.16
Secondary	89.03	101.87	113.03	119.49	135.91	159.44
Access	101.02	103.67	105.99	137.82	158.93	169.1
2. Length of road with protected bicycle lane (km)	254.92	276.25	305.66	306.72	370.01	400.85
3. Length of road with exclusive bus lanes						-
Bus lanes						
BRT						
4. Vehicle Fleet in city proper (number)						
Passenger cars	37246	44494	53630	64566	74682	
Motorcycles	86004	94105	101942	110938	118054	
Bus	44186	49349	53710	60841	63702	
Public buses (including minibuses)	547	666	689	762	856	
Company bus	43649	48683	53021	60079	62846	
Bicycles	n/a	n/a	n/a	n/a	n/a	
Electric bicycles	n/a	n/a	n/a	n/a	n/a	
Ordinary bicycles ('000)	1515	1530	1545	1560	1575	
Trucks (large, and small)	37554	41936	45222	49806	52385	
Other	1389	1635	1771	2524	2525	
5. Traffic accident fatalities in city proper						
Number of cyclists	36	26	19	23	16	
Number of pedestrians	52	55	50	34	41	
6. Growth rate in 5 years in city proper (%)						
Passenger cars		19.46	20.53	20.39	15.67	
Motorcycles		9.42	8.33	8.82	6.41	
Total		12.28	11.18	12.70	8.34	
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	1. Two-stroke motorcycles are not allowed to be registered 2. To examine the exhaust gases annually					

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2001	2002	2003	2004	2005	2006
1. Bus and trolley bus						
Number of Buses	457	556	599	672	766	831
Route-kilometers	474.90	523.15	630.45	675.45	778.35	839.15
Vehicle-kilometers (10 thousand)	2448.79	3050.63	3608.39	4389.26	5097.02	5777.54
2. Trolleybus						
Number of Trolleybuses	90	110	90	90	90	85
Route-kilometers	32.50	34.00	34.00	34.00	34.00	34.00
Vehicle-kilometers (10 thousand)	467.97	492.61	517.41	570.00	601.49	566.60
3. Taxi						
Number of Taxis					4226	
Taxi-kilometers (10 thousand)					39382.94	
4. Metro						-
Number of Trains						
Route-kilometers						
Car-kilometers ('000)						

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	LUOYANG					
UNIT OF MUNICIPALITY DEALING WITH UPT	Bureau of Public Utilities					
YEAR	2001	2002	2003	2004	2005	2006
SERVICES						
Number of routes	35	39	46	48	55	59
Network density (km/km ²)	0.52	0.54	0.59	0.64	0.70	0.73
% of population within 300 meters of a bus stop			58.75%			
% of population within 500 meters of a bus stop			88.90%			
OPERATORS						
Number of operators	1	1	1	1	1	3
SOE's share of buses	100%	100%	100%	100%	100%	100%
FINANCIAL DATA – REPORTED						
SOE Total Annual Revenue (10 thousand yuan)	6571	7548	8553	1292 4	15208	
SOE Total Annual Costs (10 thousand yuan)	7429	8341	9332	1354 9	15853	
Annual Subsidy (10 thousand yuan)	1550	1550	1350	1800	2050	2360

n/a not available

PART V. TRAVEL DEMANDS BY MODE SHARE

Indicator			
1. Year of Data Collection	1988	1995	2006
2. Demands (%)			
Walk	40.20	35.45	38.51
Bicycle	51.00	54.22	37.08
Bus and Trolleybus	n/a	n/a	5.99
Motorcycle	5.90	2.76	10.41
Company Bus	1.00	4.11	3.02
Taxi	0.50	2.47	1.08
Passenger cars			1.41
Metro/light rail		0.44	0.70
Others	n/a	n/a	0.82

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator			
1. Year of Data Collection	N/a		
2. Demands (km per trip)			
Walk			
Bicycle			
Bus and Trolleybus			
Motorcycle			
Company Bus			
Taxi			
Passenger cars			
Metro/light rail			
Others			

10. Nanchang

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population ('000)						
Municipal total		4751.7	4607.9	4507.7	4488.5	4401.6
City-proper total		2199.4	2037.3	1963.7	1809.9	1746.8
Floating population		590	460	380	310	230
2. Population Growth Rate (%)						
Municipal total		3.12	2.22	0.43	1.97	1.76
City-proper total		7.96	3.75	8.50	3.61	2.62
Floating		28.26	21.05	22.58	34.78	21.05
3. Area (square kilometers)						
Municipality		7402.36				
City proper		617.07				
Build-up area		206				
4. GDP (100 million yuan)						
Municipal total		1007.7	770.68	641.02	552.37	485.62
City-proper total		621.28				
5. GDP growth last 5 years (%)						
Municipal total		16.80				
(Data are calculated at constant prices)						
City-proper total						
6. Average disposable income in city proper (yuan)		10301				
7. Per Capita Income Growth (%)		17.80				
8. Financial resources spent on infrastructure development (10 thousand yuan)						
2006						
Five years (2001-2006)	76000	58000	90000	35600		
9. Financial resources spent on public transport infrastructure						
2006						
Five years (2001-2006)						

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	—/—
Premium: 4 km/8 km trip	2 元/—
Standard: 4 km/8 km trip	1 元/2 元
Minibus: 4 km/8 km trip	—/—
Taxi: 4 km/8 km trip	9.8 元/17.4 元
2. Parking Charges at Daytime (city center)	
Car (Yuan/time)	5
Motorcycle (Yuan per lot)	1
Bicycle: Standard/Luxury (Yuan per lot)	0.5
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	-
Motorcycle (Yuan per lot)	-
Bicycle: Standard/Luxury (Yuan per lot)	-

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	2005	2004	Latest years		
			2003	2002	2001
1. Length of road network (km)					
City Proper					
Primary (expy, major arterial)	187				
Secondary	137				
Access	141				
2. Length of road with protected bicycle lane (km)	37.4				
	187				
3. Length of road with exclusive bus lanes	0				
Bus lanes					
BRT					
4. Vehicle Fleet in city proper (number)	267307				
Passenger cars	68640				
Motorcycles	148193	151000	142204	122616	116975
Bus	3054				
Public buses (including minibuses)	1735				
Company bus	1319				
Bicycles					
Electric bicycles	80000				
Ordinary bicycles	865000				
Trucks (large, and small)	35641				
Other	11779				
5. Traffic accident fatalities in city proper					
Number of cyclists & pedestrians	149				
6. Growth rate in 5 years in city proper (%)					
Passenger cars	25.40	23.40	22.60	21.50	20.90
Motorcycles	-1.86	6.19	15.98	4.82	14.12
Total	23.54	29.59	38.58	26.32	35.02
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.					

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	
1. Bus and trolley bus	
Number of Buses	1735
Route-kilometers	1018
Vehicle-kilometers (km/bus-day)	180
2. Trolleybus	
Number of Trolleybuses	89
Route-kilometers	33.8
Vehicle-kilometers (km/bus-day)	200
3. Taxi	
Number of Taxis	3569
Taxi-kilometers (km/car-day)	400
4. Metro	0
Number of Trains	
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	NANCHANG
UNIT OF MUNICIPALITY DEALING WITH UPT	Bureau of Public Utilities
SERVICES	
Number of routes	106
Network density (km/km ²)	2.31
% of population within 300 meters of a bus stop	92%
% of population within 500 meters of a bus stop	98%
OPERATORS	
Number of operators	24
SOE's share of buses	100%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(100 million yuan)	3.28
SOE Total Annual Costs (2005)(100 million yuan)	2.95
Annual Subsidy	0

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator	2005	2004	2003	2002	2001
1. Year of Data Collection					
2. Demands ('000 trips per day)	5780	5215	5027	4633	4472
Walk	2196	2034	2111	2039	2012
Bicycle	1734	1669	1609	1529	1476
Bus and Trolleybus	867	730	654	556	492
Motorcycle					
Company Bus	405	313	251	185	179
Taxi	231	156	101	46	45
Passenger cars					
Metro/light rail					
Others	347	313	302	278	268

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	2005
2. Demands (meter per trip on overall average)	1176
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

11. Linfen

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES
PART I. SOCIOECONOMIC DATA

Indicator	2005	For latest available year
1. Population ('000)		
Municipal total	4120	
City-proper total	741	
Floating population	140	
2. Population Growth Rate (%)		
Municipal total	1.1	
City-proper total	7.5	
Floating	14	
3. Area (square kilometers)		
Municipality		
City proper	1316	
Build-up area	40	
4. GDP (100 million yuan)		
Municipal total	523.18	
City-proper total	113.84	
5. GDP growth last 5 years (%)		
Municipal total	25	
City-proper total	17	
6. Average disposable income in city proper (yuan)	9276	
7. Per Capita Income Growth (%)	103.04	
8. Financial resources spent on infrastructure development (10 thousand yuan)		
2005	85500	
Five years (2001-2005)	304000	
9. Financial resources spent on public transport infrastructure (10 thousand yuan)		
2005	52500	
Five years (2001-2005)	163480	

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	—
Premium: 4 km/8 km trip	—
Standard: 4 km/8 km trip	1/1.5
Minibus: 4 km/8 km trip	1/1.5
Taxi: 4 km/8 km trip	6/11
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	1.5
Motorcycle (Yuan per lot)	0.5
Bicycle: Standard/Luxury (Yuan per lot)	0.2
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	—
Motorcycle (Yuan per lot)	—
Bicycle: Standard/Luxury (Yuan per lot)	—

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years 2005
1. Length of road network (km)	
City Proper	
Primary (expy, major arterial)	89
Secondary	45
Access	9
2. Length of road with protected bicycle lane (km)	53.2
3. Length of road with exclusive bus lanes (km)	
Bus lanes	27.6
BRT	—
4. Vehicle Fleet in city proper (number)	
Passenger cars	57531
Motorcycles	28892
Bus	
Public buses (including minibuses)	234
Company bus	425
Bicycles	
Electric bicycles	65000
Ordinary bicycles	147000
Trucks (large, and small)	10070
Other	2920
5. Traffic accident fatalities in city proper	647
Number of cyclists	132
Number of pedestrians	76
6. Growth rate in 5 years in city proper (%)	
Passenger cars	60
Motorcycles	2.2
Total	
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	Not allowed driving on the main roads in the city proper.

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2005
1. Bus and trolley bus	
Number of Buses (vehicle)	234
Route-kilometers	334
Vehicle-kilometers ('000)	11810831
2. Trolleybus	—
Number of Trolleybuses	
Route-kilometers	
Vehicle-kilometers ('000)	
3. Taxi	
Number of Taxis	3658
Taxi-kilometers ('000)	128890000
4. Metro	—
Number of Trains	
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	Linfen
UNIT OF MUNICIPALITY DEALING WITH UPT	Bureau of Public Utilities
SERVICES	
Number of routes	23
Network density (km/km ²)	2.1
% of population within 300 meters of a bus stop	86%
% of population within 500 meters of a bus stop	91%
OPERATORS	
Number of operators	1
SOE's share of buses	100%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)	—
SOE Total Annual Costs (2005)	—
Annual Subsidy (10 thousand yuan)	210

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator	2001	2002	2003	2004	2005
1. Year of Data Collection	396	427	459	494	530
2. Population ('000)					
2. Demands ('000 trips per day)					
Walk	74	82	87	90	94
Bicycle	375	394	409	433	448
Bus and Trolleybus	175	226	276	339	404
Motorcycle	68	78	85	94	96
Company Bus	—	—	—	—	—
Taxi	79	85	95	102	115
Passenger cars	180	225	294	395	576
Metro/light rail	—	—	—	—	—
Others	—	—	—	—	—

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	2001	2002	2003	2004	2005
1. Year of Data Collection					
2. Demands (km per trip)					
Walk	0.6	0.75	0.8	0.85	0.95
Bicycle	1.2	1.5	1.8	1.85	1.9
Bus and Trolleybus	2.5	2.7	3	3.2	3.5
Motorcycle	4	4.2	4.5	4.8	5.0
Company Bus	—	—	—	—	—
Taxi	4.5	4.8	5.0	5.5	5.8
Passenger cars	3.5	3.8	4.2	4.9	5.5
Metro/light rail	—	—	—	—	—
Others	—	—	—	—	—

12. Chongqing

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year				
	2001	2002	2003	2004	2005
1. Population ('000)					
Municipal total	30979.1	31138.3	31301	31442.3	31691.6
City-proper total	6120.2	6186.6	6235.6	6322.2	6455.1
Floating population	2687	2990	3269	3509	3712
2. Population Growth Rate (%)					
Municipal total	0.22	0.51	0.52	0.45	0.79
City-proper total	0.69	1.08	0.79	1.39	2.10
Floating	10.91	11.28	9.33	7.34	5.77
3. Area (square kilometers)					
Municipality	82403	82403	82403	82403	82403
City proper	2616	2616	2616	2616	2616
Build-up area	272.53	288.43	305.26	323.08	341.93
4. GDP (100 million yuan)					
Municipal total	1765.68	1990.01	2272.82	2692.81	3070.49
City-proper total	683.47	768.10	887.01	1187.40	1294.73
5. GDP growth last 5 years (%)					
Municipal total	10.14	12.70	14.21	18.48	14.03
City-proper total	17.71	12.38	15.48	33.87	9.04
6. Average disposable income in city proper (yuan)	6721.09	7238.07	8093.67	10243.99	11079.68
7. Per Capita Income Growth (%)	7.28	13.44	13.16	14.28	11.80
8. Financial resources spent on infrastructure development (10 thousand yuan)					
2006					
Five years (2001-2006)	3283225	4747585	6654920	6003468	7448268
9. Financial resources spent on public transport infrastructure					
2006					
Five years (2001-2006)					

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	2/2
Premium: 4 km/8 km trip	2/2
Standard: 4 km/8 km trip	1/1
Minibus: 4 km/8 km trip	1/1
Taxi: 4 km/8 km trip	6.8/14
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	3.0
Motorcycle (Yuan per lot)	1.5
Bicycle: Standard/Luxury (Yuan per lot)	—
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	2.0
Motorcycle (Yuan per lot)	1.0
Bicycle: Standard/Luxury (Yuan per lot)	—

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	2002	Latest years		
		2003	2004	2005
1. Length of road network (km)				
City Proper	1755.7			
Primary (expy, major arterial)	357.9			
Secondary	281.6			
Access	1116.2			
2. Length of road with protected bicycle lane	0			
3. Length of road with exclusive bus lanes	0			
Bus lanes				
BRT				
4. Vehicle Fleet in city proper (number)	184294			
Passenger cars				
Motorcycles				
Bus				
Public buses (including minibuses)	2969	4143	5037	5583
Company bus	—	—	—	—
Bicycles				
Electric bicycles	—	—	—	—
Ordinary bicycles	—	—	—	—
Trucks (large, and small)	64167			
Other				
5. Traffic accident fatalities in city proper				
Number of cyclists	—			
Number of pedestrians	—			
6. Growth rate in 5 years in city proper (%)				
Passenger cars				
Motorcycles				
Total	21			
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	Chongqing motorcycle with no restrictions on the registration of the above. However, the use of motorcycles for adventure or disrupt city traffic motorcycle users who have quite severe restrictions and penalties.			

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2001	2002	2003	2004	2005
1. Bus and trolley bus					
Number of Buses		4026	4379	5347	
Route-kilometers		6315	6863	7273	
Vehicle-kilometers ('000)					
2. Trolleybus					0
Number of Trolleybuses					
Route-kilometers					
Vehicle-kilometers ('000)					
3. Taxi					
Number of Taxis	6497	6462			
Taxi-kilometers (10 thousand)		225.8			
4. Metro					
Number of Trains					
Route-kilometers					
Car-kilometers ('000)					

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	CHONGQING		
UNIT OF MUNICIPALITY DEALING WITH UPT	Municipal Committee of Communications; Municipal Bureau of Construction (manage urban rail transportation)		
YEAR	2002	2003	2004
SERVICES			
Number of routes	247	272	305
Network density (km/km ²)	2.41		
% of population within 300 meters of a bus stop	52.5%		
% of population within 500 meters of a bus stop	69%		
OPERATORS			
Number of operators	7	7	7
SOE's share of buses	70%		
FINANCIAL DATA – REPORTED			
SOE Total Annual Revenue (2005)			
SOE Total Annual Costs (2005)			
Annual Subsidy			

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2002	2005
2. Demands ('000 trips per day)	9160	N/a
Walk	5742	
Bicycle	0	
Bus and Trolleybus	2482	
Motorcycle	48	
Company Bus	—	
Taxi	401	
Passenger cars	433	
Metro/light rail	0	
Others	54	

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	N/a
2. Demands (km per trip)	
Walk	
Bicycle	
Bus and Trolleybus	
Motorcycle	
Company Bus	
Taxi	
Passenger cars	
Metro/light rail	
Others	

13. Weihai

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES

PART I. SOCIOECONOMIC DATA

Indicator	For latest available year					
	2006	2005	2004	2003	2002	2001
1. Population ('000)						
Municipal total	820.000					
City-proper total	606.452					
Floating population	213.548					
2. Population Growth Rate (%)						
Municipal total	3.32					
City-proper total	2.9					
Floating	4.51					
3. Area (square kilometers)						
Municipality	5,698					
City proper	769					
Build-up area	92					
4. GDP (million yuan)						
Municipal total	116977					
City-proper total	30800					
5. 2001-2005 Average GDP growth (%)						
Municipal total	15.8					
City-proper total	13.0					
6. Average disposable income in city proper (yuan)	13,975					
7. Per Capita Income Growth (%)	9.9					
8. Financial resources spent on infrastructure development (million yuan)						
2006						
Five years (2001-2006)	1920	1487.96	881.97	735.81	579.02	564.21
9. Financial resources spent on public transport infrastructure (million yuan)						
2006						
Five years (2001-2006)	20.8	17.20	13.95	5.65	11.47	28.96

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	2006
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	no metro
Premium: 4 km/8 km trip	2-4
Standard: 4 km/8 km trip	1
Minibus: 4 km/8 km trip	1.5
Taxi: 4 km/8 km trip	6-8
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	2
Motorcycle (Yuan per lot)	no Parking Charges
Bicycle: Standard/Luxury (Yuan per lot)	no Parking Charges
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	1
Motorcycle (Yuan per lot)	no Parking Charges
Bicycle: Standard/Luxury (Yuan per lot)	no Parking Charges

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	2006	Latest years			2003	2002
		2005	2004			
1. Length of road network (km)	425					
City Proper						
Primary (expy, major arterial)	156					
Secondary	121					
Access	148					
2. Length of road with protected bicycle lane (km)	42					
3. Length of road with exclusive bus lanes	35					
Bus lanes	35					
BRT	—					
4. Vehicle Fleet in city proper (number)						
Passenger cars	46019					
Motorcycles	59806					
Bus	815					
Public buses (including minibuses)	735					
Company bus	80					
Bicycles						
Electric bicycles	n/a					
Ordinary bicycles	n/a					
Trucks (large, and small)	15551					
Other	5404					
5. Traffic accident fatalities in city proper (person)	81					
Number of cyclists	18					
Number of pedestrians	25					
6. Growth rate in 5 years in city proper (%)						
Passenger cars	32.5	26.1	26.9	28.3		
Motorcycles	8.1	-4.6	8.2	10.9		
Total						
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	Wei hai city is making this restriction's policy on motorcycle registration and use, not yet specifically implements					

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006
1. Bus and trolley bus	
Number of Buses	735
Route-kilometers	668.2
Vehicle-kilometers ('000)	39520
2. Trolleybus	—
Number of Trolleybuses	
Route-kilometers	
Vehicle-kilometers ('000)	
3. Taxi	
Number of Taxis	1401
Taxi-kilometers ('000)	187670
4. Metro	—
Number of Trains	
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	WEIHAI
UNIT OF MUNICIPALITY DEALING WITH UPT	Transportation Bureau
YEAR	2006
SERVICES	
Number of routes	85
Network density (km/km ²)	2.5
% of population within 300 meters of a bus stop	76.8
% of population within 500 meters of a bus stop	91.2
OPERATORS	
Number of operators	2
SOE's share of buses	90.2%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (million yuan)	71
SOE Total Annual Costs (million yuan)	83
Annual Subsidy (million yuan)	11.54

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator	
1. Year of Data Collection	2006
2. Demands ('000 trips per day)	
Walk	578.136
Bicycle	121.644
Bus and Trolleybus	210.588
Motorcycle	81.096
Company Bus	1.32
Taxi	60.168
Passenger cars	251.36
Metro/light rail	no metro/light rail
Others	5.52

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator	
1. Year of Data Collection	2005
2. Demands (km per trip)	
Walk	
Bicycle	2.5
Bus and Trolleybus	8
Motorcycle	5.3
Company Bus	
Taxi	3.92
Passenger cars	13.4
Metro/light rail	
Others	

14.Jinan

TABLE 1: URBAN STATISTICS FOR SELECTED CITIES
PART I. SOCIOECONOMIC DATA

Indicator	2006 For latest available year
1. Population ('000)	
Municipal total	6033.5
City-proper total	3512.8
Floating population	783.6
2. Population Growth Rate (%)	
Municipal total	0.996
City-proper total	0.943
Floating	40.430
3. Area (square kilometers)	
Municipality	8177
City proper	3257
Build-up area	295
4. GDP (100 million Yuan)	
Municipal total	2185.09
City-proper total	1265.2
5. GDP growth last 5 years (%)	
Municipal total	104.980
City-proper total	118.251
6. Average disposable income in city proper (yuan)	13578
7. Per Capita Income Growth (%)	34.516
8. Financial resources spent on infrastructure development (100 million Yuan)	
2006	135
Six years (2001-2006)	590
9. Financial resources spent on public transport infrastructure (100 million Yuan)	
2006	15.10
Six years (2001-2006)	66.0

PART II. TRANSPORT PRICES, REVENUES AND EXPENDITURES

Indicator	
1. Transport Fares (Yuan)	
Metro: 4 km/8 km trip	No Metro
Premium: 4 km/8 km trip	2/2
Standard: 4 km/8 km trip	1/1
Minibus: 4 km/8 km trip	No Minibus
Taxi: 4 km/8 km trip	8.7/13.5
2. Parking Charges at Daytime (city center)	
Car (Yuan/hour)	2
Motorcycle (Yuan per lot)	1
Bicycle: Standard/Luxury (Yuan per lot)	0.2
3. Parking Charges at Daytime (outside center)	
Car (Yuan/hour)	2
Motorcycle (Yuan per lot)	1
Bicycle: Standard/Luxury (Yuan per lot)	0.2

PART III. ROAD NETWORK AND VEHICLE FLEET

Indicator	Latest years 2006
1. Length of road network (km)	
City Proper	824
Primary (expy, major arterial)	248
Secondary	93
Access	483
2. Length of road with protected bicycle lane (km)	248
3. Length of road with exclusive bus lanes (km)	76
Bus lanes	76
BRT	—
4. Vehicle Fleet in city proper (number)	
Passenger cars	198514
Motorcycles	577378
Bus	3741
Public buses (including minibuses)(vehicle)	3859
Company bus	800
Bicycles	
Electric bicycles	About 500000
Ordinary bicycles	2002296
Trucks (large, and small)	73168
Other	83063
5. Traffic accident fatalities in city proper	772
Number of cyclists	68
Number of pedestrians	42
6. Growth rate in 5 years in city proper	
Passenger cars	24
Motorcycles	12
Total	22
7. Please list and describe any restrictions on motorcycle registration and use in the city proper.	<p>1. PUBLISHED RELATED LAWS AND REGULATIONS, REQUIREMENT FOR NO-MOTORCYCLE ROAD, NO-MOTORCYCLE PERIOD, NO-MOTORCYCLE INTERSECTIONS.(JINAN PUBLIC SECURITY BEAROU)</p> <p>2. EXCEPT FOR MOTORCYCLES MADE BY FORMAL FACTORIES UNDER THE REQUIREMENT OF NATIONAL STANDARD AND ENVIRONMENTAL REQUIREMENT, ALL THE OTHER TYPE OF MOTORCYCLES ARE FORBIDDEN IN THE STREET.</p>

PART IV. PUBLIC TRANSPORT SYSTEM AND OPERATION,

Indicator	2006
1. Bus and trolley bus	
Number of Buses	3859
Route-kilometers	2649.2
Vehicle-kilometers ('000 per day)	427142
2. Trolleybus	
Number of Trolleybuses	140
Route-kilometers	46.9
Vehicle-kilometers ('000 per day)	15598
3. Taxi	
Number of Taxis	8050
Taxi-kilometers (km/car-year)	130000
4. Metro	
Number of Trains	—
Route-kilometers	
Car-kilometers ('000)	

Part IV continued: Public Transport Characteristics of the Cities (latest available)

CITY	JINAN
UNIT OF MUNICIPALITY DEALING WITH UPT	Public Utilities Bureau
SERVICES	
Number of routes	144
Network density (km/km ²)	3.95
% of population within 300 meters of a bus stop	55
% of population within 500 meters of a bus stop	80
OPERATORS	
Number of operators	1
SOE's share of buses	100%
FINANCIAL DATA – REPORTED	
SOE Total Annual Revenue (2005)(10 thousand yuan)	56315.67
SOE Total Annual Costs (2005)(10 thousand yuan)	61619.29
Annual Subsidy(10 thousand yuan)	2900

n/a not available

PART V. TRAVEL DEMANDS BY MODE

Indicator		
1. Year of Data Collection	2001	2004
2. Demands ('000 trips per day)		
Walk	4.4	6.1
Bicycle	6.7	7.1
Bus and Trolleybus	2.0	2.7
Motorcycle	1.1	1.2
Company Bus	0.5	0.5
Taxi	0.2	0.2
Passenger cars	0.7	0.7
Metro/light rail	0.0	0
Others	0.1	0.1

Please also provide these travel demand data for 5 years ago (2001) – indicate the year

PART VI. AVERAGE TRAVEL DISTANCES BY MODE

Indicator		
1. Year of Data Collection	2004	
2. Demands (meters per trip)		
Walk	911	
Bicycle	2411	
Bus and Trolleybus	18400	
Motorcycle	3588	
Company Bus	7392	
Taxi		
Passenger cars	4819	
Company cars	4632	
Metro/light rail		
Others		