

**Development of a “Quality Bus” Corridors Program, Including Introduction
of a New “Rapid Commuting Mode” in Beijing**

Beijing's bus system is the largest of any city in the World. With over 20,000 buses, it moves has over 13 million passenger boarding's on an average week day. While it has greatly expanded in recent years in response to a growing, more affluent population traveling more, it has done so without a comprehensive, scientifically developed plan and is suffering from other external issues.

As auto ownership and congestion have increased, more and more buses were needed to provide essentially the same net people-moving capacity. At the same time, declining performance has also meant that bus services are becoming increasingly unattractive as an alternative to buying and using a personal vehicle (over 1,000 added to the private vehicle fleet every day). Beijing's Metro has and is expanding to meet this challenge, but the bus system will still carry the majority of public transport trips even after the planned 500Km+ metro system (also among the World's largest) is operational by 2015. This having been said, the current Metro and bus operating (not including capital) subsidy is expected to exceed \$1.5 B US, and it is growing at a rate that officials are concerned is unsustainable.

Though Beijing's bus system is exceptional in terms of sheer size and usage, the problems it faces are not unique. There are already over 50 cities in China with more than 1 million inhabitants, and, in the greatest rural to urban migration in history, China's cities are collectively expected to add 200 million residents in the next 20 years! They will depend on public transport in general, bus transit in particular for all or part of their mobility.

The purpose of the “Quality Bus Corridors/Rapid Commuting Mode” study partially financed by ESMAP which concluded in June, was to demonstrate how bus services in Beijing could be reorganized and the over-all bus system improved. The objective of these improvements was not only to provide a much more attractive alternative to private modes, but also to increase the financial and environmental efficiency of the huge system. The local and global emissions and energy consumption of 20,000 buses can be enormous. They can weigh as much as 20 automobiles and travel at least ten times further in a typical day than the average car.

The study began with the development of a rigorous, multi-criteria analysis of the suitability of each of the more than 50 major (30,000 + daily bus boardings public transport corridors in Beijing for a demonstration project. The Chaoyang Road Corridor, with over 200,000 daily bus person trips per day, an existing underutilized BRT line and no metro line planned for the foreseeable future was selected as the highest priority for conceptual planning per the intent of the study.

The second phase of the study produced a concept plan for the reorganization of the bus service in the Chaoyang Road corridor which would include the introduction of a totally new type of service ("Rapid Commuting Mode). It also identified concepts for the other system elements (Intelligent Transportation System/traffic engineering, vehicles, station/stops, fare collection, etc.) necessary to make the new network service plan more efficient and effective from all perspectives.

A follow-up study which will prepare a comprehensive public transport, non-motorized transport and safety project in the detail necessary for implementation is now being close to initiation.



