

From: Rohit Khanna/Person/World Bank

To: S-Ratcliffe@dfid.gov.uk

Cc: Patricia A. Bliss-Guest/Person/World Bank@WorldBank,
Andrea Kutter/Person/World Bank@WorldBank, Lesley Wilson/Person/World Bank@WorldBank,
CIF Admin Unit/Service/World Bank@WorldBank,
Arturo Ardila Gomez/Person/World Bank@WorldBank,
Walter Vergara/Person/World Bank@WorldBank,
Maria Catalina Ochoa/Person/World Bank@WorldBank,
Carla Della Maggiora/Person/World Bank@WorldBank,
Aurelio Menendez/Person/World Bank@WorldBank,
Gustavo Saltiel/Person/World Bank@WorldBank,
Henry Russell/Person/World Bank@WorldBank

Date: 10/02/2009 10:14 AM

Subject: Queries related to the Mexico urban transport project

Simon,

Here are the responses to your questions on the Mexico urban transport project:

Has consideration been given to whether the private sector model for this project is the most appropriate in the particular context of Mexican cities?

Most BRT projects to date have made use of private sector investments, mostly for vehicle procurement and fare collection. BRT projects, which are bus-based, lend themselves easily to private sector participation because fares can cover operations, maintenance and capital costs of the buses. This situation is typical of countries such as Mexico, but does not happen in more developed countries, where fares usually cover only part of the operation and maintenance costs. Experience in Latin America, shows that, in general, there is space for the private and public sector to work together, in what is also known as *private sector competition within a publicly controlled system*. In Mexico City, for example, Metrobus - a public entity - holds overall responsibility for system management and quality control, and private concessions are used to deliver all other aspects of the system, including fare collection and bus operations. This is a model widely applied in BRT systems.

In this context, the Government of Mexico (GoM) has recognized that in order to address the urban transport problems facing its cities, the participation of the private sector in the investment and operation of urban transport systems is key. Private participation reduces the overall public sector financing costs, and might bring technical expertise and risk sharing schemes that ensure project success. Therefore, with technical assistance from the World Bank, the GoM developed the policy framework for the Programa Federal de Transporte Masivo (PROTRAM), which will be supported by the proposed project. As part of the technical assistance provided by the Bank, particular attention was given to analyzing the role that the private sector could play in the provision of urban transport services and the incentives that were required for such participation. This analysis is reflected in the guidelines of the PROTRAM.

PROTRAM is intended to promote private investment in infrastructure through direct federal financial participation and provision of grants (up to 50% of total project cost), federal loans and guarantees for projects that have important social, economic and environmental benefits. PROTRAM incentives, (grants, loans, guarantees) aim at making urban transport projects financially feasible and attractive to the private sector.

Nevertheless, the current financial crisis could cause the private sector to refrain from investing in urban transport projects -- PROTRAM has an indicative minimum requirement for private sector participation of 35 percent of total costs. For that reason, the proposed project has been designed with sufficient flexibility in order to accommodate such situations. The project will provide financing to sub-projects that contribute to the development objective but that do not meet the 35% private sector participation requirement proposed under the PROTRAM guidelines

What provision has been made for independent bus or taxi operators that will be displaced by the BRT apart from the scrapping of their vehicles? Are there ownership opportunities for such operators?

Implementing a BRT implies transforming the current bus operations from a one-bus-one-owner (hombre-cami3n) scheme to a more organized and efficient operation. Under this scheme, Mexican law grants hombres-camiones solid rights on their bus and route permits. In this context, and following experience of cities like Mexico City and Leon, existing transport service providers can represent an important group of supporters if handled properly. Setting up the right communication strategy and the incentives to make existing operators part of the system is critical.

In general, traditional operators that are not relocated will be encouraged to sell or scrap their buses. Indeed, scrapping requirements for BRT operators is one way of ensuring that former bus owners do not completely lose the value of their vehicle asset, given that new investors will have to buy these. The compensation they receive for the old vehicle will help them to gather the necessary capital to become shareholders of the new operating company. Additionally, scrapping allows for avoiding leakage and locking emission reductions. Besides competing to win the BRT concessions, existing operators can also be relocated to other routes that feed the system, reenter the sector under new types of jobs generated (e.g. drivers, security staff, fare collection staff), or pursue new business opportunities through the creation of small enterprises to provide services linked to the new system.

Cities such as Mexico City and León have introduced mechanisms to help the existing owners transition to the new scheme. The transition's impact has been mitigated through compensation such as: (i) support for capitalization and credits to finance the acquisition of new buses; (ii) distribution of dividends to the *hombres-camiones* now dubbed shareholders, as a result of higher efficiency and economies of scale of the BRT; and (iii) increased work stability and benefits such as life insurance, health services, and retirement plans.

What provision has been made for the possible recycling of scrapped vehicle parts/components?

The scrapping component in the proposed project includes (i) institutional capacity building to develop/adopt clean and environmentally sound scrapping strategies (including dismantling process, classification, disaggregation, and final disposal in recycling plants or landfills, and financial mechanisms for implementation), (ii) the purchasing of displaced rolling stock, and (iii) the implementation of the scrapping process.

Additionally, as illustrated by the case of Insurgentes, scrapping of old buses is expected to be a requirement to ensure no "leakage" of vehicles to other cities. For instance, the Insurgentes corridor carbon credits are awarded provided that a certain number of vehicles are scrapped, and that the destruction process is certified. The Bank has received copies of the scrapping certificates issued by the steel mill and these are kept in the project files.

Are the bus manufacturers local or will they be imported?

The hybrid articulated vehicles are most likely to be imported, at least during an initial period. Standard articulated vehicles are manufactured locally but the bids for supply will not be restricted to local providers.

Mexico has established manufactures of buses (chassis and bodywork, which are done typically by separate companies). The requirement of using hybrid buses for 30% of the fleet could mean that these companies partner with suppliers of this technology to build the buses in Mexico or that operators purchase through the international market. The search for best prices will probably be the guiding principle for the private sector that will operate the buses.

How are the cost estimate discrepancies in the table on page 32 accounted for. eg. 9.5 km for Tranvia Veracruz-Boca del Rio = Mex\$ 2,732 million vs 18.5 km at a cost of Mex\$ 590 million for Mexicali? I assume this is terrain or urban fabric related but wanted to find out if there were other factors.

Infrastructure costs for mass transit systems can vary considerably depending on the complexity and sophistication of the system, as well as local characteristics. For instance, the BRT of Taipei was developed at \$0.5million per km, while the Bogota BRT Phase II cost was of \$16 million per Km.

Experience shows that infrastructure cost largely depends on technology, materials, system capacity, local construction costs, amount of land acquisition, and (as you mentioned) urban fabric related aspects. In the particular case mentioned, one of the main drivers of the discrepancy arises from the technology chosen. While the project in Mexicali is a very light BRT, the one in Veracruz is a tram through the historic downtown.

What provision has been made for the growth and expansion of the BRT networks in the chosen cities in their business/financial models? Will their expansion be self funding?

The project requires participant cities to plan comprehensively and not just a single corridor. Indeed, to participate in PROTRAM, a city must have an Integrated Transport Plan that reflects a holistic view of urban transport planning. Under the earlier Medium Cities Project financed in part by the Bank, several cities developed Integral Transport Plans (ITP) that could serve as a basis for moving forward, but others have further to go. In that case, where cities do not have an Integrated Transport Plan, both PROTRAM and the proposed IBRD project will finance its preparation, update and/or completion.

The comprehensive planning includes, among others, an examination of the entire urban transport system from a network perspective, an assessment of land use, and air quality and emissions. The Plans must analyze both supply and demand policies, such as mass transit and public transport reforms, parking management strategies, congestion pricing and vehicle restriction, road pricing, non-motorized transport, and land use management strategies. By financing both the overall planning and mass transit lines, PROTRAM establishes a policy framework that also improves the technical and political feasibility of various demand-side measures -- such as congestion pricing -- as it creates a valid alternative for the drivers who are "tolled-off" by the charge.

Cities will likely chose from their integrated transport plans the "best" corridor to be implemented first, but the comprehensive plan will establish other corridors for future expansion and also complementary measures such as changes in regulation and incentives that also need to be undertaken. The expansion will be self funded to a certain degree. In many projects the fare will cover operation, maintenance, and capital costs of the buses. Infrastructure costs will be covered totally through public funds. Sometimes, however, some infrastructure costs can be financed by the fare (after deducting bus-related costs) or through advertisement concessions and other businesses related to the project.

The GoM commitment to guide and financially support integrated transport planning is also evidenced in the establishment and structure of FONADIN-PROTRAM. PROTRAM lies within the National Infrastructure Fund (Fondo Nacional de Infraestructura or FONADIN), which is entrusted with financing, through grants and loans to municipalities and loan guarantees to the private sector, planning studies as well as capital expenditures on infrastructure and equipment. FONADIN results from an unprecedented effort of the Government of Mexico to promote economic competitiveness in the areas of health, education and public services, as well as promoting the modernization of urban transport, highways,

ports, airports, energy, and the hydraulic sector. FONADIN funding comes from proceeds from the concessioning of a package of inter-municipal roads, namely the Trust for Supporting the Recovery of Licensed Highways (Fideicomiso de Apoyo al Rescate de Autopistas Concesionadas or FARAC) and the Infrastructure Investment Fund (Fondo de Inversión en Infraestructura or FINFRA). This first capitalization of FONADIN amounted to over US\$ 3 billion, and, while the financial crisis has interfered with the second round of road concessions, it is expected that, once the current financial crisis is over and economic growth resumes, Mexico will be able to continue with its program and provide additional funding for FONADIN .

Please feel free to contact me if you should require further clarification.

Many thanks.

Rohit