

Project Name MEXICO-Air Quality Management and Sustainable (@)...
Transport Project

Region Latin America and Caribbean Region

Sector Roads and highways (60%); Information technology (25%);
Health (10%); Other industry (5%)

Project ID P043165

Borrower(s) BANOBRAS

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Environment Category B

Date PID Prepared January 28, 2003

Auth Appr/Negs Date November 19, 2003

Bank Approval Date March 23, 2004

1. Country and Sector Background
2.1 Sector issues

Need for a better harmonization of sector policies on the issue of Air
Quality and on Climate Change

The metropolitan authorities have adopted comprehensive sector policies in
transport, air quality and urban development. These are: Integrated
Transport Program (2002-2006) (Programa Integral de Transporte y
Vialidad), the General Urban Development Program (2002-2006) (Programa
General de Desarrollo Urbano) and the Environmental Program (2002-2006)
(Programa de Medio Ambiente) of the City. The corresponding Plans of the
State of Mexico are: the Institutional Program of Medium Term (2000-2005)
(Programa Institucional de Mediano Plazo) that integrates all the specific
transport programs, the Sectorial Urban Development Program (1999-2005)
(Programa Sectorial de Desarrollo Urbano), and the Environmental
Protection Program (1999-2005) (Programa de Protección al Ambiente).
However, there is a need for the sector authorities to harmonize the

different programs as these relate to the issues of transport, air quality and land use. Also, even though awareness and activism in international fora have increased, climate change issues have not been fully integrated into the sector planning and decision-making. Successful incorporation of climate-friendly policies and measures will depend on the extent to which sector planning recognizes the harmonization potential between climate change and sector policies, and on the realization of local co-benefits from actions on climate change concerns.

Lack of coordination between the air quality, transport and urban planning strategies may result in failure to capture gains in efficiencies or may result in sectorial actions that would be counterproductive for the goals of the other sectors. Transport planning strategies that are coordinated with the air quality management plan would ensure that the efforts and allocation of resources of the metropolitan area may result in higher levels of emissions of local and global pollutants are avoided. Harmonization with urban planning would ensure that land use and transport planning are also examined from an air quality perspective. The overall intended benefit from harmonizing these strategies is that the efforts in the environmental front are coordinated with similar efforts in transport and land use. The harmonization of the sector strategies and plans would result in several action plans (fiscal, institutional, legal etc.). Implementation of this framework would necessitate the promotion of measures that will facilitate a modal shift in the transport sector of the metropolitan area (from one based on an increasing share of small, gasoline-based vehicles to a system based on high capacity, fuel efficient and low carbon emitting vehicles, running along transport corridors and linked and integrated with the metro system). To this effect, there is a need to identify and promote the adoption of an enabling policy and regulatory environment that will permit the development of transport corridors, as a key element of the modal shift. Transport corridors are expected to lead to a more efficient, less polluting public transport sector.

Likewise, the contamination caused by the transport sector is a problem of metropolitan dimension. Mexico City and the State of Mexico have each their own independent institutional organizations. Even though there is substantial across-the-board technical and institutional capacity, the coordination between them is limited. Due to the fact that the Mexico City and the State of Mexico share an atmospheric basin the problem is of metropolitan nature and needs to be addressed by both administrations in a coordinated manner.

Transport Sector and Air Quality Issues

- i) Lack of a sustainable business environment for public transport

The business structure of bus services in the Mexico City Metropolitan Area (MCMA) has led to highly inefficient operations, resulting in a costly, unsafe and environmentally unsustainable public transport system. The key issues are: (a) lack of an organizational model that would facilitate efficient public transport operation in the metropolitan area, (b) dispersed operations that hinder the effective control of bus services and contribute to traffic congestion, (c) inefficient use of vehicles, (d) deficiencies in bus inspection and maintenance, (e) lack of professional

management among bus operators, (f) lack of coordination between transport operations in the State of Mexico and the City, (g) a fare system which penalizes transfers and thus discourages intermodal movements, and (h) systematic decline in the number of metro passengers since 1989 despite a 35% network extension during that period. These barriers are significant and require of substantial efforts at the policy and regulatory levels.

The experience of Bogota's innovative bus corridor system (see Annex 12)- as well as the achievements of the Curitiba busways- demonstrates that the creation of the right business environment is vital for achieving sustainable public transport services by improving their commercial viability. The Bogota reforms included, in addition to such physical works as busways, terminals and on-line bus stations: (a) a regulatory framework encouraging management structures that facilitate commercially efficient bus operations, thereby providing adequate incentives for investors, (b) a payment system that provides the adequate incentives for investors, (c) a client-friendly fare structure that is attractive to bus passengers, and (d) transparent oversight and enforcement mechanisms. These aspects can be improved in Mexico and would be addressed as part of the reform to the regulatory system, envisioned as the key output of the GEF project. The Transmilenio program has resulted after one year of operation in a daily ridership of 680,000 passengers along transport corridors of very high capacity vehicles. This is a significant modal shift.

ii) Large contribution of the transport sector to the problem of air quality

Under the Integrated Transport and Road Program (2002-2006), the transport authority of Mexico City is attempting to address the growing demand for transport while minimizing its environmental impacts. However, the number of vehicles in the area is high for the available infrastructure, resulting in road congestion, large fuel consumption, unsafe conditions and high level of emissions. In particular, the nature of the bus sector for the MCMA is of a very fragmented supply, which also results in a somewhat chaotic provision of services. Likewise, the increasing number of private cars exacerbates traffic congestion, which contributes to productivity losses, and higher level of emissions of criteria pollutants. According to the recently released emission inventory and the AQM-III (2002-2010), the mobile sources account for a majority of NOx emissions, 40% of HC emissions and about 36% of particulate emissions.

Table 1. Emission Inventory in the MCMA 1998 (percentage)

SECTOR	PM10	SO2	CO	NOx	HC		
Stationary sources			16	55	0.5	13	5
Area sources	8		24	1.5	5	52	
Soils and vegetation			40	N/A	N/A	2	3
Mobile sources	36		21	98	80	40	
Total %	100	100	100	100	100		

In addition to the large contributions to the release of local criteria pollutants, the transport sector in the MCMA is the largest contributor of greenhouse gases (see Figure 1). Mexico, is the largest contributor of CO2 emissions (2.1%) in the Latin America region. The recently concluded COP-8, in Marrakesh, Morocco, has again emphasized the need for urgent action to reduce anthropogenic emissions of greenhouse gases and took

actions to promote carbon finance between Annex 1 nations (developed) and developing countries. The Kyoto Protocol has now been endorsed by a majority of the community of nations. The carbon trade has thus been reaffirmed and emissions trading of about 700-1000 millions tons of carbon dioxide equivalent is expected on an annual basis for the first commitment period (2008-2012).

The 1998 energy balance for the MCMA has been calculated using the methodology and format utilized by OLADE⁴. The estimates show that the MCMA consumes 592 PJ annually, for which it requires a gross supply of 648 PJ (56 PJ are used in the transformation process). The largest user is the transport sector, accounting for 49% of the total (292 PJ), an overwhelming fraction of which is provided through the combustion of gasoline in motor vehicles (190 PJ)⁵. A GHG emission inventory was calculated on the basis of the energy balance, following the IPCC methodology. The study estimates emissions of 44.6 million tons of CO₂ equivalent into the atmosphere during 1996 as a result of energy consumption. Of those, 34.9 million tons of CO₂ equivalent were released as a result of fuel emissions in all sectors, while 10.7 million tons represent emissions associated with the generation of electricity⁸ used in the MCMA. This volume of GHG represents 10.3 % of the total national emissions for that year⁹. The largest sector in terms of greenhouse gas emissions is transport with 18 million tons of CO₂ equivalent in 1996 and 19.6 million tons of CO₂ in 1998.

Figure 1. CO₂ emissions by sector and source in the MCMA (1996)

The transport sector is also the largest source of methane (CH₄) and volatile organic compounds. Methane emissions have a large radiative effect in the atmosphere, while VOCs contribute to the generation of Ozone. Ozone itself has a warming effect of about one quarter that of CO₂ on a molecular basis. As the transport sector is also the largest source of local criteria pollutants, opportunities for harmonization of local/global pollution problems in the transport sector would have significant impacts in both areas of concerns.

Figure 2. Direct CO₂ Emissions by Fuel in the MCMA (1996)

Does not take into account associated fugitive emissions or leaks.

iii) Congestion and low productivity in the transport sector

Traffic congestion affects public transport efficiency and, in addition, imposes direct and indirect costs on the urban economy. Time lost in traffic can add up to a substantial share of a city's output as it reduces the size of the effective labor market, imposes the need for higher inventory and more generally affects individual productivity. In Mexico, between 1990 and 2000, the number of motor vehicles on the road grew by 42%. At the same time, the population of Mexico's medium and large cities

grew by 25%, while the number of trips grew even faster than the population. Inefficient public space management, including the lack of properly designed traffic signs and signals, uncontrolled vehicle parking, and inadequate facilities for pedestrians and other non-motorized traffic, contribute significantly to the congestion problem. Commercial transport of freight is affected by congestion in central business districts, poorly maintained road surfaces and inadequate terminal facilities. In addition, in many cities, the aging fleet of highly polluting diesel buses will soon require replacement if air quality is to be managed effectively. The municipal governments are poorly equipped to manage these challenges. This results in limited coordination in intermodal services. Second, Mexican municipalities have limited land use planning powers. Third, the allocation of responsibilities between states and municipalities is inefficient, which makes long-range land use planning difficult. Finally, municipalities have limited resources with which to fund investment in transport infrastructure. The MCMA typifies the difficulties mentioned.

iv) Gradual carbonization (increase of greenhouse gas emissions per passenger-km) of the transport sector: need for a modal shift to reduce emission of criteria pollutants and greenhouse gases

The energy and greenhouse gas inventories for the MCMA indicate a gradual increase in its energy intensity. This finding is evident in the analysis of the modal evolution in the public transport system in the MCMA during the period 1986-2000 (Fig. 3) which shows that both the metro system and the bus have lost share of the total public transport market, having been displaced by smaller vehicles. The gradual shift away from large capacity vehicles is, in part, an unintended effect of the atomization of services in the transport sector and the relatively poor regulatory system. This is an unwelcome development, especially in such a congested and polluted region as the Mexico City Metropolitan Area, where it has generated inefficiencies from a transport and environment perspective by adding to traffic congestion and reducing public transport productivity. It has resulted in higher emissions and exposure to criteria pollutants (and associated health impacts), caused increased releases of greenhouse gases, and has been linked to increasing accident rates. Finally, it has contributed to the inability of the rail mass transit system (essentially the metro) to attract passengers to its installed infrastructure. The Mexican authorities want to reverse this trend and promote measures that will aid the modal shift from small vehicles to large buses and the metro.

However, shifting passengers from private cars to public transportation facilities - or convincing new car owners to continue using public transportation -- is not an easy task. Bus and metro riding is often uncomfortable and has an unattractive image with many residents of the MCMA, as evidenced by the declining metro ridership over the last decade. Lack of parking places at metro stations, and particularly the lack of efficient links between bus and metro routes pose additional difficulties, while the extension of the metro lines is very expensive and would not provide for full coverage of the needs in the MCMA.

The loss of passengers by the metro system is particularly worrisome from

an environmental perspective as well as in terms of the financial sustainability of the system. Table 3 below, shows the trend in passengers carried on an annual basis by the most used lines of the metro. While there is overcrowding at some transfer points, the system is generally carrying less passengers today than in 1990.

Table 3. Annual passengers (in millions) by Line
1990 2000

Line 1	380	300
Line 2	415	300
Line 3	305	250

In simple terms, the hourly throughput capacity of a metro line is the number of passengers per train multiplied with the number of trains per hour. At present, the minimum interval between trains is 115 seconds on Line 1 (31.3 trains per hour), 130 seconds on line 2, and 125 seconds on Line 3. With modern signalling techniques, metros can have a sustained frequency of 40 trains per hour, running at 90-second intervals. So in theory, the capacity of the three lines could be increased by 27-44% by running a train every 90 seconds. This would require an investment in additional trains, the signalling on those lines, and possibly changes to the track and platform configuration at some congested stations.

2.2 Government Strategy

Transport Sector Strategy in the MCMA

The Comprehensive Transport Plan of the City (2002 - 2006) calls for: a) gradual elimination of subsidies to the transport sector and restructuring of the fare system, b) integration of the transport system with the State of Mexico and promotion of modal shift through the development of metropolitan mass transport corridors; c) strengthening of the public transport system through the development and implementation of modern traffic management; d) reduction in the environmental load of the transport sector into the MCMA air shed; and e) support to technology improvements in the transport sector through the introduction of better bus and rail technologies.

The first objective supports the development of a sustainable business environment for the public transport sector. The authorities have started the reduction of subsidies in real terms but these still represent an important fraction of total operation costs for the bus and metro operations. On the other hand, the Government receives substantial income from taxes on fuel consumption some of which are channeled to environmental objectives in the city. The control of emissions by the transport sector into the air shed of the MCMA has been initiated through adoption of more stringent emission and vehicle standards and through the definition of measures that would promote the integration of urban development plans and transport plans. However, these plans are still in the early phase of development. Measures to control the number of vehicles in areas of high congestion and traffic management measures to alleviate gridlock and the creation of pedestrian zones in downtown areas are also being considered. Also the government intends to promote the introduction

of low emission vehicles and promote a higher level of utilization of the metro. A study to restructure the system of bus route concessions was completed in 1999 but its recommendations have not yet been implemented for a lack of resources.

Promotion of a modal shift is a central part of the government's strategy. The modal shift measure to be supported under the project is the development of mass transport corridors on which high capacity, low polluting vehicles would operate. These corridors would make more efficient use of infrastructure and move passengers in an integrated mode with the metro at higher speeds, lower costs per passenger and lower emissions per passenger kilometer and, at the same time, alleviate traffic congestion. The modal shift is expected to contribute to a reduction in the emission of greenhouse gases per passenger kilometer. The government of the City conceives the air quality and transport policy as the conjunction of various complementary elements that should facilitate the improvement of transport conditions in the City.

Environment Sector: Formulation of a long term, multi-sector, strategic framework

The AQM-III (2002-2010) consists of a multi-sector, metropolitan, long-term effort to address air quality issues in the MCMA and constitutes the official government strategy for air quality in the metropolitan area. The plan which has been issued jointly by the Government of Mexico City, the Government of the Estado de Mexico and the Federal Government summarizes prior work on air quality management and provides an updated description of the situation in the Valley in terms of air quality. It concludes that while significant progress has been made, there are major challenges facing the goal of improved air quality. These are linked to the expected continuous growth in demand for services and economic activity and the difficult nature of the many dispersed sources of pollution in the area. Transport sector is identified as a key sector for immediate action. The plan also summarizes information available on the impacts on health from air pollution (drawing from the reports prepared with Bank and GEF PDF-B assistance).

The plan updates the emissions inventory (prepared with Bank assistance) and establishes goals for the 10 year duration of the program. These goals are provided in quantitative form and summarized are:

A substantial reduction in ozone concentrations and exposure (eliminating any concentrations above 200 IMECA points) and reducing average concentrations significantly;
Reduce the concentration of PM10 and 2.5;
Eliminate violations to the norm on CO concentrations;
Reduce average concentrations of SO2.

To achieve these goals, the plan establishes a 10 year program consisting of 108 measures. Key parts of the program are:

Reductions of emissions generated by the transport sector;
Reduction of emissions from industry and service;
Conservation of natural resources and forest cover in the Metropolitan Area;

Integration of policies and plans in air quality, transport and urban planning;
Reduction of exposures to high concentrations of pollutants;
Promotion of environmental education and awareness and technology development;
Harmonization of plans to address air quality and control of emissions of greenhouse gases.

2. Objectives

The project development objective is to reduce the pollution and greenhouse gas load into the air shed of the MCMA contributed by the transport sector (both passenger and cargo), while improving the safety and efficiency of urban transport management at the metropolitan level. This will be sought through enhancing the use of space-efficient and low-polluting transport modes, with a focus on the development of surface mass transport corridors that complement and integrate with the existing metro infrastructure. Specifically the project will seek to:

- a) improve the inter-agency (environment and transport) and regional (City and State) coordination for effective air quality management in the MCMA;
- b) contribute to improvements in the efficiency and safety of the transport system, with an emphasis on the development of mass transport corridors and promotion of the use of existing metro lines and other space efficient and low-polluting public transport services, including non-motorized transport;
- c) contribute to: a) the reduction of traffic related (mobile) emissions from criteria pollutants, with an emphasis on particulate matter and ozone, and b) the reduction of greenhouse gas emissions, through efficient application of existing regulations and improvements in the regulatory and policy framework and the development of mass transport corridors;
- d) raise public awareness on the long term benefits of measures taken to reduce the pollution load into the air shed of the MCMA contributed by the transport sector.
- e) effective project management.

3. Rationale for Bank's Involvement

The Bank involvement brings a global experience with air pollution and transport issues and its linkage with global concerns. The policy dialogue with the environmental authorities banks on extensive expertise at the Bank on the subject. The involvement of the Bank/PCF in the proposed project provides an opportunity to support a critical effort by the GoM to i) improve the environmental performance of the transport sector, ii) improve global environmental quality through the reduction of greenhouse gases; and, iii) partly reduce dependence on high-carbon fuel-generated energy. Bank involvement has made possible the sharing of its broad experience in air quality and transport and adapting it to Mexican conditions. PCF involvement is critical to provide the resources required to make the corridors operational.

4. Description

Project Description

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and efficiency of urban transport management at the metropolitan level. This will be sought through enhancing the use of space-efficient and low-polluting transport modes, with a focus on the development of surface mass transport corridors that complement and integrate with the existing metro infrastructure. Specifically the project will seek to:

- a) improve the inter-agency (environment and transport) and regional (City and State) coordination for effective air quality management in the MCMA;
- b) contribute to improvements in the efficiency and safety of the transport system;
- c) contribute to: a) the reduction of traffic related (mobile) emissions from criteria pollutants, with an emphasis on particulate matter and ozone, and b) the reduction of greenhouse gas emissions, through efficient application of existing regulations; improvements in the regulatory and policy framework and the development of mass transport corridors;
- d) raise public awareness on the long term benefits of measures taken to reduce the pollution load into the air shed of the MCMA contributed by the transport sector.

- a) Improve the inter-agency (environment and transport) and regional (City and State) coordination for effective air quality management in the MCMA (US\$2 million, to be partially financed with revenues from the sale of emission reductions)

An important part of the efforts to reduce emissions from the transport sector and improve its efficiency is to strengthen the planning and coordinating functions of the sector agencies over the MCMA. The CAM (Comision Ambiental Metropolitana) has the mandate to coordinate over air quality issues. The project will assist this function through:

- a) a program of training and institution building in support of the CAM's functions in air quality and similar programs for SETRAVI and the Secretaria de Comunicaciones del Estado de Mexico;
- b) support to the overall strengthening of the CAM (allocation of permanent technical staff, independent and sustainable budget, liaison functions with other sector agencies, specially on land use planning);

- b) Contribute to improvements in the efficiency and safety of the transport system, with an emphasis on the development of mass transport corridors and promotion of the use of existing metro lines and other space-efficient and low-polluting public transport services, including non-motorized transport. (US\$ 130 million, partially financed through a Bank loan to Edomex for US\$75 million and a Bank loan to GDF for US35 million).

The project will focus its resources on the development of infrastructure to facilitate the development of mass transport corridors (bus rapid transit system) that would support the metro-bus integration and improve the attractiveness and image of public transport. Measures that will be included are:

- a) Improve pedestrian facilities leading to the stations of the proposed corridors.
- b) Build efficient and attractive transfer stations, with priority access given to large buses.
- c) Implement dedicated busways.

- d) In parallel, improve the roadway and traffic engineering along selected traffic corridors.
- e) Concession the services on those bus-ways to "formal" companies using large and low-polluting buses.
- f) Restructure bus services generally in the corridors, limiting minibuses for specific services (such as feeder routes or express services).
- g) Implementation of non-motorized transport schemes ancillary to the transport corridors.

c) Strengthen the information, planning and decision making for reduction of traffic related (mobile) emissions from criteria pollutants, with an emphasis on particulate matter and ozone and the reduction of greenhouse gas emissions. (US\$5 million, partially financed with the revenues of the sale of emission reductions)

a) To strengthen the information base, a key activity under this component will be the modernization and expansion of the Red de Monitoreo Ambiental (RAMA) and the provision of a similar system for the State of Mexico.

b) Support will also be provided for continuation of the modeling, inventories and planning activities required for routine updating of the AQM.

c) Similarly, efforts will be invested in strengthening the enforcement system for compliance with emission regulations and to support the monitoring and implementation of the scrapping program for old vehicles.

d) Public Awareness and Dissemination. This component will support the design of a public campaign with respect to the measures considered in this project in order to reduce the pollution load into the air shed of the MCMA contributed by the transport sector (both passenger and cargo), while improving the safety and efficiency of urban transport management at the metropolitan level. (US\$1 million partially financed with the revenues from the sale of emission reductions)

e) Project Management. This component will support the management of the project activities, including monitoring and evaluation. The project will finance management costs in the form of consultancy services and travel (US\$1 million partially financed with revenues from the sale of emission reductions).

Inter-agency (environment and transport) and regional (City and State) coordination for effective air quality management
 Development of mass transport corridors and promotion of the use of existing metro lines and other space-efficient and low-polluting public transport services, including non-motorized transport.
 Information, planning and decision making for reduction of traffic related (mobile) emissions
 Public Awareness and Dissemination.
 Project Management.

5. Financing

Total (US\$m)
 BORROWER \$110.00
 IBRD \$175.00
 IDA
 Total Project Cost \$285.00

6. Implementation

Implementation Agency. The project will be implemented by the Secretary of Communications in the State of Mexico and by the Secretary of Environment in the City. Both agencies will cooperate under a joint implementation unit for those aspects of the project that require joint implementation (specifically, components a and c). The loans will be channelled through BANOBRAS and the Carbon Finance Resources will go to the implementation agencies directly.

Progress to Date in Project Preparation. This project originated as part of the preparation process of a second IBRD's air quality project for Mexico City and its Metropolitan Area. In 1998, the Bank started supporting GOM (federal, state, and city authorities) to devise its third Air Quality Management Program for MCMA, which would run from 2001 to 2010.

The GEF-funded project has been approved and is supporting the design the institutional, business and regulatory framework for sustainable use of the corridors. The project is expected to be declared effective by end of January 2003. The PHRD grant is now effective and arrangements are being made to contract the executive design of the corridors. A GTF grant was approved and has financed the identification of the corridors. The corridors selected consist of the Tlahuac-Tasquena corridor in the City with a length of 14 Km and the Ciudad Azteca-El Rosario corridors in the State of Mexico with a length of 30 km. A summary of the results of the selection study is attached as annex 16.

Schematic of proposed corridor in the City of Mexico (Tlahuac-Tasquena)

Location of proposed corridor in the State of Mexico (Ciudad Azteca-Tlanepaltan)

7. Sustainability

The sustainability of the project resides in the gradual adoption of the new technology by the market. Up till now, there are only few cases at the international level where hybrid buses have been tested at the field. It can be estimated that by helping the increase in demand for this technology, costs will get down to a level where it can become competitive with internal combustion vehicles. Other options include economic incentives for public transportation companies so that enough demand is generated to help drop supply costs. The project is very valuable, though, as it provides a real life test on performance, costs, and impacts that will help decision making at the political and business levels.

8. Lessons learned from past operations in the country/sector

The Bank has a long-standing involvement in the sector of Air Quality Management. The first project in the MCMA was approved in 1992. The objective of this project (just closed) was to support a comprehensive

program to reduce transport generated air pollution in the MCMA. This project was followed by the provision of technical assistance in the formulation of the AQM-III. The implementation of the first quality project offers a valuable experience on which to base the proposed GEF-funded operation. The project was satisfactorily completed and an ICR (Implementation Completion Report) has been issued. Some of the lessons learned during its implementation, that have been incorporated in the project design, include:

Air pollution is a long-term problem that requires a long-term response. The Mexican Government has recognized the need for a long term strategy to address the issues caused by air pollution (PICCA and PROAIRE see acronyms table) and accordingly has committed to the development of long range plans, the first of which covered a 5 year period in the City. To assist in this program, the World Bank needs to continue to have a long-term commitment that matches the time requirements needed to secure sizable and permanent improvements in air quality. A long-term vision and concomitant goals need to be set, to guide removal of barriers and promote short-term measures.

Planning for the long-term, however, requires flexibility. Previous experience has shown that, despite the best planning efforts in the preparatory stage, required adjustments in air quality management activities will only become evident during their implementation.

Wide participatory approach to air quality management

A participatory approach, incorporating public opinion in the project, is required to establish legitimacy of the project. Widespread implementation of the proposed measures is also critical in order to achieve the desired results. To accomplish this, it is necessary to gain public confidence and support for the program activities. There is also a need to build consensus among all stakeholders over the identification of priority measures. The effectiveness in carrying out and monitoring the agreed priority measures needs to be determined in a participatory approach, with the input of all stakeholders. Commitment from the Mexican government to publish environmental audits annually to promote the achievements of the clean air programs, as well as to improve institutional transparency is vital. Such audits could help promote local ownership and full support from the highest levels of Government.

The Bank's involvement should continue to be used for its catalytic effect

The World Bank should continue to catalyze the involvement and the participation of development banks and agencies, the private sector, NGO's and foundations and research and training centers. The Bank should work to mobilize technical and financial support from international environmental agencies and to organize study tours to cities with experience in modern transport strategies. The project will support a dissemination effort of the results and experiences obtained through the implementation of its components.

Local air management matters from a global perspective

Local air pollution issues and global concerns are linked. Local programs may contribute to global benefits. Major environmental and economic benefits can be achieved through a well-implemented reform of bus

services. In the recently closed Bogota Urban Transport Project (1996-2002), the Bank was closely involved in the design and implementation of the successful transmilenio bus system. Important aspects of this experience could be replicated in and adapted to the MCMA transport system.

9. Environment Aspects (including any public consultation)

Issues : There are no major negative environmental impacts that would call the project into question.

10. Contact Point:

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Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.

This PID was processed by the InfoShop during the week ending January 31, 2002.