



1. Project Data:		Date Posted : 08/17/2000	
PROJ ID: P007694		Appraisal	Actual
Project Name : Transportation Air Pollution Control	Project Costs (US\$M)	1086.7	7178.4
Country: Mexico	Loan/Credit (US\$M)	220	91.8
Sector(s): Urban Transport	Cofinancing (US\$M)	0	0
L/C Number: L3543			
	Board Approval (FY)		93
Partners involved :	Closing Date	06/30/1997	06/30/1999
Prepared by :	Reviewed by :	Group Manager :	Group:

2. Project Objectives and Components

a. Objectives
The objectives of the project were to reduce air pollution in Mexico City Metropolitan Area (MCMA) through the following measures:
(a) reducing emissions of nitrogen oxide, volatile organic compounds, carbon monoxide, lead and particulate matter from transport sources;
(b) developing a policy framework to support transport and air quality objectives;
(c) improving the scientific base underlying the air quality program development and management; and
(d) strengthening institutional capabilities to effectively plan and implement air quality programs over the long-term.

b. Components
The project consisted of five components:
(1) vehicles component included: development and enforcement of emission standards; line of credit to finance replacement of old or high use vehicles with new emission controlled vehicles; re-engining and retrofitting of vehicles with emission controls (e.g. catalytic converters); and upgrading the inspection and maintenance (I/M) and vehicle registration systems;
(2) fuel component included: (i) setting up of vapor recovery system at service stations; and (ii) designing and monitoring alternative fuel pilot program;
(3) transport policy and management component included technical assistance for preparation of an integrated Transport and Air Quality Management Strategy for MCMA;
(4) scientific base component included technical assistance for improving the level of scientific knowledge regarding air pollution in MCMA and also improving planning, evaluation and emergency response capabilities of air pollution control measures; and
(5) institutional strengthening component included the strengthening of Technical Support Team of Commission for the Prevention and Control of Environmental Pollution (CMPCCA) and carrying out of annual environmental audit.

c. Comments on Project Cost, Financing and Dates
The actual project cost is US\$ 7,178.4 million. This is significantly above the appraisal estimates of US\$ 1,086.7 million. Private sector finance 97% (US\$ 6,964.5 million) of the final project cost. The appraisal loan amount was US\$ 220 million. Bank disbursed about US \$ 91.8 million and the remaining was canceled. The project closed two years later than the original closing date.

3. Achievement of Relevant Objectives:
Overall, the project achieved its objective of reducing air pollution in MCMA by strengthening institutions responsible for planning and implementing air quality programs and by passing comprehensive local environmental laws and regulations.

- Ambient lead concentrations were reduced by 98%.
- Level of sulfur dioxide was reduced sufficiently to reach healthy level.

- Concentrations of ozone and particulate matter less than 10 microns in diameter (PM 10) show a downward trend. Number of days exceeding ozone value of 200 has decreased from 174 in 1991 to 30 in 1999.
- The diagnostic, planning and implementation capabilities of Metropolitan Environmental Commission (CAM) was strengthened. The number of professional staff has tripled.
- An Environmental Trust Fund was created to finance environmental projects in MCMA.
- An "Integrated Transport and Air Quality Strategy" was prepared to effectively plan and implement air quality program.
- The automatic air quality monitoring network in MCMA was upgraded to provide "real time" air quality information.
- The inspection/maintenance (I/M) system in the MCMA was upgraded to conduct expanded testing of carbon monoxide, hydrocarbons and nitrogen oxide.
- Private sector played a major role in vehicle fleet modernization.
- The pilot program for alternative fuels began in 1998.

4. Significant Outcomes/Impacts:

The significant impact of the project is the launching of the "Clean Air Initiative" in Latin American cities for improving the air quality in the most polluted cities in the region. The clean air initiative is being replicated in Eastern Europe, Asia and Sub-Saharan Africa.

5. Significant Shortcomings (including non-compliance with safeguard policies):

The project design was very complex. The responsibilities of executing agencies were not clearly defined, resulting in non-utilization of resources. Some of the air pollution studies were not carried out.

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome :	Satisfactory	Satisfactory	
Institutional Dev .:	Substantial	Substantial	
Sustainability :	Likely	Likely	
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

The key lesson that emerges from the project is that the private sector can play a significant role in improving air quality when conducive institutional and financial framework are established.

8. Assessment Recommended? Yes No

Why? The project can provide important lessons for future lending operations in integrating air quality improvements in transport projects.

9. Comments on Quality of ICR:

The quality of ICR is satisfactory. The lessons could have been developed more to reflect the experience of an integrated air quality and transport program.