Report Number : ICRR0020293

1. Project Data

Project ID	Project Name
P114012	MX-GEF Sust. Transp & Air Quality
Country	**Practice Area(Lead)**
Mexico	Transport & ICT

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
TF-95695	31-Dec-2013	36,959,000.00
Bank Approval Date	**Closing Date (Actual)**	
23-Dec-2009	30-Nov-2015	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	5,378,000.00	5,378,000.00
Revised Commitment	5,196,231.84	5,196,231.84
Actual	5,196,231.84	5,196,231.84

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

This project was part of a horizontal adaptable program operation of the Latin America (LAC) Sustainable Transport and Air Quality (STAQ) Program with a total of US$20.8 million Global Environment Facility (GEF) Grant. The program consisted of one regional project document and three country projects, each of which had their own grant agreement and PAD.

The original objective of the project, which consisted of technical assistance(TA) and studies, was to assist the selected municipalities to: (i) reduce greenhouse gas (GHG) emissions growth rates by fostering long term increases in the use of less energy intensive transport modes; and (ii) induce policy changes in favor of sustainable transport projects (GEF Grant Agreement, February 12, 2010, page 7).

At the project restructuring approved in February 2011 by the Bank's management, the term “selected municipality” of the project objective was replaced by “eligible territories” to acknowledge the participation of metropolitan areas and allow for supra-municipal entities to implement the project (Amendment to the GEF Grant Agreement, Annex, November 1, 2010). There were no changes in the expected outcomes or key indicators (ICR Data Sheet, page 8).

In the Amendment to the GEF Grant Agreement, Annex, November 1, 2010, the project objective remained exactly the same, except for the replacement of “selected municipalities” with “eligible territories”, in line with the February 2011 restructuring.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

Technical Assistance (TA), including pre-feasibility and feasibility studies and designs of sub-projects, and Capacity-Building Activities in Selected Cities

The Mexico GEF project and the specific city subprojects were expected to cofinance measures in four thematic windows under the Latin America (LAC) Sustainable Transport and Air Quality (STAQ) Program, following the cities’ and GEF’s priorities for climate-change mitigation in the urban transport sector.
Window (Component) 1. Freight Management (appraisal estimate US$120,000; actual US$120,000)
Improvement of the planning, management and control of freight transport in Ciudad Juarez.

Window (Component) 2. Land Use and Transport Coordination (appraisal estimate US$205,000; actual US$319,906)
Development of a sustainable approach to address urban mobility patterns and lessen barriers to better integrated planning in Ciudad Juarez and Puebla.

Window (Component) 3. Public Transport Enhancement (appraisal estimate US$3,647,000; actual US$3,804,606)
Facilitation to improve public transport systems, the effectiveness and interconnectivity of those systems with other modes of transport, and induce mode switching away from the use of private cars in project areas.

Window (Component) 4. Non-motorized Transport (NMT) (appraisal estimate US$1,116,000; actual US$754,046)
Better integration of walking and biking into the municipalities’ cultural and planning processes and creation of incentives for their use as a viable and safe alternative to traditional motorized transport

systems in project areas.

Component 5. Project Management (appraisal estimate US$290,000; actual US$197,673)
Short-term technical support staff of the project coordinating unit (PCU) for supervising and monitoring project implementation.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project cost
The project cost at appraisal was US$5.38 million and the actual cost was US$5.20 million.

Financing
The project was grant-financed by GEF. The undisbursed amount of US$ 0.18 million was cancelled in April 2016 after the project closing date on November 31, 2015.

Borrower Contribution
The borrower contribution at appraisal was US$31.55 million and the actual contribution was US$106 million or 336 percent of the appraisal amount. The borrower contribution was mostly works that complemented the GEF grant, which did not include works. This large increase in borrower contribution was mainly due to a significant increase of contribution of Monterrey city from the appraisal estimate of US$ 18.12 million to about US$ 97.05 million for civil works, rolling stock and equipment under Window (Component) 3 Public Transport Enhancement.

Dates
The Board approval of the project was on December 23, 2009; and the project became effective on February 24, 2011. The project's closing date, originally on December 31, 2013, was extended twice, to December 31, 2014 and to November 30, 2015, as part of the project's four Level Two restructurings as summarized in the table below.

Dates	Key Changes
2/24/2011	Amended the Grant Agreement to change: (i) the definition of the participating implementing entities; and (ii) the legal reference to the name of the project intervention areas.
9/10/2012	Reallocated US$35,000 from Category 1 (Goods) to Category 2 (Consulting Services) for Puebla to finance two NMT studies. During execution, Puebla financed one of the two studies with own resources.
12/11/2013	Amended the Grant Agreement: (i) changed the executing agency due to an institutional reform, (ii) extended the closing date because of the delays in project implementation due to the institutional reform, and the ineffective coordination between institutions and (iii) reallocated US$185,000 from Category 3 (Operating Costs and Training) to Category 2 (Consultant Services) to increase finance for the existing studies.
12/16/2014	Extended the closing date to ensure that the remaining studies can be completed with good quality while building capacity in the cities.

3. Relevance of Objectives & Design

a. Relevance of Objectives

The project objective was relevant at appraisal and remained so when the project closed. The transport sector was the highest contributor to carbon dioxide (CO2) emissions in Mexico, accounting for 35 percent of the total in 2014 (International Energy Agency [IEA] 2016). This emission level increased from 18 percent of total emissions at the 2009 project appraisal. Urban sprawl and the higher motorization rate resulted in more and longer trips. The passenger vehicle stock rose from around 9 million in 2000 to over 25 million in 2014. The rising demand for passenger vehicles led to serious traffic congestion and air pollution in Mexico's largest cities that is far above the World Health Organization's upper recommended limit for particulate matter concentration. The air pollution affects especially the poor who are transit-dependent and live far from jobs and services. The project objective was relevant to Mexico National Development Plan (NDP) 2007-2012 and NDP 2013-2018, National Climate Change Strategy in 2007 and especially the updated strategy in 2013, and the Sustainable Urban Mobility Strategy for 59 Mexican cities.

The project objective was relevant to the World Bank Group's (WBG's) Mexico Country Partnership Strategy (CPS) 2008-2012 that included the WBG participation in promoting sustainable transport, air quality, and climate change. The CPS 2014-2019 included this project in the thematic area of "Promoting Green and Inclusive Growth."

Rating
Substantial

b. Relevance of Design

The project focused on the project preparation, technical and policy studies to complement a much larger transport investment projects. These investment projects were expected to be financed by a World Bank supported Urban Transport Transformation Project (UTTP, P107159), a National Mass Transit Program (PROTRAM) and other sources. This project and UTTP shared similar PDOs, as UTTP aimed to contribute to the transformation of urban transport in Mexican cities toward a lower carbon growth path.

While the project components included only TA, the PAD noted that the actual investments would take place "outside the scope of the GEF Sustainable Transport and Air Quality Project (STAQ)" (PAD, November 24, 2009, pages 22 and 67). Actual GHG reduction will be achieved by the projects financed by UTTP or PROTRAM. UTTP and GEF TA indicate the GHG emissions reduction from the same sources in their results framework.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective
Reduce GHG emissions growth rates by fostering long term increases in the use of less energy-intensive transport modes

Rationale
Outputs

- Feasibility and design studies for BRTs were almost completed in Ciudad Juarez and completed in Leon and Monterrey. The GEF grant retroactively financed the Monterrey and León BRT studies, which had been already executed.
- Studies for public transport systems were completed in Ciudad Juárez, Monterrey and Leon.
- NMT and bike mobility studies and plans in the four territories were completed.

Outcomes
Only the retroactively financed Monterrey and León BRT studies led to actual investment in BRT projects and were operational. These two BRT projects resulted in the following outcomes.

- Annual emissions savings of 62,864 carbon dioxide equivalent (CO_2e) ton. This achievement exceeded the target of 58,000 CO_2e tons. The baseline was 179,825 CO_2e ton.
- Slight increase in the number of trips in public transportation to 967,081 trips from the baseline of 959,705 trips in Monterrey and Leon.

Rating
Substantial

Objective 2

Objective

Induce policy changes in favor of sustainable transport projects

Rationale

Outputs

- A study for freight management in Ciudad Juarez was completed.
- GHG inventory study
- Other outputs were the same under the objective 1 above.

Outcomes

• All the participating cities used the GEF TA financed studies for planning, e.g., NMT or bike mobility plans, new urban mobility policy frameworks and regulations.

• Monterrey, León and Puebla developed and adopted Plan Integrado de Movilidad Urbana Sostenible (Integrated Sustainable Mobility Master Plan, PIMUS, not funded by the GEF TA). Ciudad Juárez developed and adopted a city-level mobility plan that incorporated climate change considerations. The development and adoption of these low-carbon integrated transport and land use agenda were required for these cities to access funding for their investment project from the PROTRAM and UTTP. The GEF TA also financed the preparation of some of these investment projects.

• The GHG inventory study contributed to improving GHG accounting methodology, which could better inform the policy decisions. The methodology was adopted in PIMUS.

• The implementation of this GEF TA has contributed to the improvement of institutional relationships and coordination between the federal and subnational governments on the sustainable urban mobility agenda. These interactions built local capacity and initiated a dialogue to create a long-term federal government program to assist municipal governments in sustainable urban mobility interventions. By the time the project closed, many planning and policy change processes were occurring. For example, the public consultation was planned (and carried out in 2016) on the new Sustainable Urban Development Plan in Ciudad Juarez, which incorporated the GEF TA-financed freight and bike mobility studies. The GEF TA contributed to inducing all four cities to take numerous initiatives toward promoting less energy-intensive transport modes and making policy changes to promote sustainable urban transport mobility.

Rating

Substantial

5. Efficiency

Ex-ante analysis

At appraisal, the Mexico GEF PAD did not include the cost-effectiveness analysis. Based on the cost-effectiveness analysis of the Project Document of LAC STAQ GEF Project (P096017), this ICR Review examined the cost effectiveness of the BRTs (León and Monterrey) and NMT (Ciudad Juárez, León and Monterrey). This ex-ante analysis covered 95 percent of the GEF grant. When only GEF grant was considered, the estimated cost-effectiveness was US$0.59-0.73 per ton of CO2e reduction. When the total cost (including GEF and counterpart funding) was considered, the estimated cost-effectiveness was US$4.15-5.20 per ton of CO2e reduction.

<u>Ex-post analysis</u>
An ex-post cost-effectiveness analysis on the BRTs (León and Monterrey), covering 29 percent of the GEF grant disbursement, resulted in a GEF grant of US$0.95 per ton of CO2e reduction. When the total cost (including GEF and the counterpart funding) was considered, it was US$84.44 per ton of CO2e reduction. The reason of higher costs at the ex-post analysis than that of ex-ante analysis could be partly due to (i) improved GHG assessment methodology financed by this GEF TA project, (ii) different project scope, e.g., the ex-ante analysis' inclusion of NMT, which was much lower in cost per CO2 reduction, and increased unit cost of BRT per ton CO2e reduction and (iv) different currency exchange rates and inflation.

US$84.44 per ton of CO2e reductions in the ex-post analysis were higher than US$4.15-5.20 at the ex-ante analysis, Still, it was below the US$100 threshold generally considered acceptable in Clean Technology Fund guidelines (Summary of the Co-Chairs Meeting of the Clean Technology Fund Trust Fund Committee October 28-29, 2013, page 5).

<u>Administrative efficiency</u>
This GEF grant was originally a four-year TA comprised mostly of studies. However, its effectiveness was delayed by one year after Board approval and it also required an extension of the closing date by nearly two years.

Efficiency Rating
Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 ☐Not Applicable
ICR Estimate		0	0 ☐Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project objectives are substantially relevant to the development priorities and strategies of the Government of Mexico (GOM) and the World Bank Group (WBG). The project's design was also substantially relevant to the achievement of the project objective. Efficacy of the first objective, to reduce GHG emissions by fostering long term increases in the use of less energy intensive transport modes, was substantial. Efficacy of the second objective, to induce policy changes in favor of sustainable transport projects, was also substantial. Efficiency was modest, due to the high actual costs incurred compared to appraisal estimates, as well as administrative and implementation delays.

a. Outcome Rating

Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating

There is a risk that not all of the preparation studies financed by this GEF grant may become investment projects. However, federal and local governments are supporting participating cities in identifying strategies and potential financial support. Some of the cities have been developing detailed designs for subprojects based on the feasibility studies financed by the GEF grant. Thus, the commitment to the project development outcome would like to be sustained.

a. Risk to Development Outcome Rating

Modest

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank used the GEF grant TA to support the broader agenda of sustainable transport and integrated land use. The Bank team's analysis of the sector and country issues was well established. A blue ribbon committee evaluated the cities' proposals on their technical merits, positive impacts, political support and commitment.

Lessons learned were taken into account, based on many relevant programs since 1992. However, alternatives to the GEF project were not properly discussed in the PAD (PAD, November 24, 2009, page 14). The expectations of what can be achieved by the end of GEF TA was ambitious. Economic aspects were focused on the GHG reductions and financial aspects were not fully discussed at appraisal. The project was expected to benefit the population's living standards while responding to other problems associated with urban poverty, in terms of (a) access to economic opportunities and (b) social inclusion. Fiduciary and implementation arrangements were complicated involving many actors. The Bank team composition appeared adequate, including urban transport, transport, social, environmental, institutional, legal and fiduciary team members.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The Bank team focused on meeting the project objective by flexibly working with the client and making timely adjustments to the project. An action plan at the third project restructuring increased the pace of project supervision missions. However, the quality of supervision was compromised by the amount of deliverables produced in the last year of the project. It was not feasible to accurately supervise and review a large number of documents in a short time. The Bank supported the cities in identifying strategies and potential financial resources to ensure the materialization of the projects, for which GEF TA financed preparation studies. Following the Government of Mexico's (GOM's) request, the Bank has initiated the preparation of a new GEF project proposal for a Low-Carbon Emissions Transformational Agenda for Sustainable Urban Mobility and Clean Freight Transport Project. This proposed project builds on the GEF TA experience.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. Assessment of Borrower Performance

a. Government Performance

The local governments' commitment to the GEF TA was demonstrated by their strong efforts to secure their counterpart financing.

The federal government ensured the achievement of the policy-related PDO. The GEF TA financed mostly preparation studies for investment projects. The counterpart financing was required for the investments. The main funding source for such investment was the Federal Mass-Transit Support Program (Programa Federal de Apoyo al Transporte Urbano Masivo, PROTRAM). PROTRAM aimed to improve the efficiency of the sector and steer it towards a lower-carbon development path. To be eligible for PROTRAM financing, a project was required to adopt an Integral Sustainable Mobility Master Plan (Plan Integrado de Movilidad Urbana Sostenible, PIMUS) that frames overall transport policy. This federal government's pre-requirement was a better strategy than expecting the adoption during project implementation.

The Government of Mexico's (GOM's) commitment to the PDO was sustained despite the changes in administrations. The GOM expressed their interest in: (a) supporting a strategy to scale up the GEF TA experience; (b) continuing technical and financial assistance to more Mexican cities; and (c) seeking solutions to implement the results of the GEF TA studies. The GOM requested the Bank for a new GEF project proposal as discussed in section 8.b. above.

Government Performance Rating

Moderately Satisfactory

b. Implementing Agency Performance

The Social Development Secretariat (Secretaría de Desarrollo Social, SEDESOL) was the key implementing agency of the GEF TA. Day-to-day subproject management was the responsibility of a Project Coordinating Unit (PCU) set up by SEDESOL. Following a federal institutional reform, the Secretaría de Desarrollo Agrario Territorial y Urbano (Secretariat of Territorial Agricultural and Urban Development, SEDATU) replaced SEDESOL as the implementing agency in 2013. SEDESOL and SEDATU were responsible for ensuring compliance with all of the covenants, although some only achieved partial compliance.

The PCU's supervision and coordination were weak during the first two years of the GEF TA implementation. After the change in the PCU, the PCU's performance improved significantly and ensured the GEF grant disbursement by the closing date. However, the PCU did not meet the deadlines of fiduciary reporting during the last six months due to new institutional changes. Moreover, as noted in section 8.b above, given the large number of deliverables produced in the last project year of the project, the quality of supervision by SEDATU (and the Bank) suffered.

SEDATU and Banco Nacional de Obras y Servicios Públicos (National Development Bank for Public Works and Services, BANOBRAS) helped the cities find strategies and potential funding to projects for which the GEF-financed preparations. New funding mechanisms and the improvement of the existing ones had been suggested by the Sustainable Urban Mobility Strategy for 59 Mexican cities. SEDATU developed and presented the strategy in October 2014.

Implementing Agency Performance Rating

Moderately Satisfactory

Overall Borrower Performance Rating

Moderately Satisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

The project objective was clear and indicators were measurable. However, no baselines were defined at project appraisal. The participating cities were largely responsible for data collection. Since these cities lacked the capacity and available resources for the data collection, SEDESOL and SEDATU supported their data collection efforts.

The project outcome indicators such as GHG reductions were directly achieved by other financing sources such as UTTP. UTTP also reports the same GHG reductions. Thus, careful reporting of national GHG reduction is required to avoid double-counting. Also, it may take longer to fully achieve these outcome indicators because these indicators would require investments after the GEF TA studies. The organization of the results chain included outputs and outcomes at the same levels (e.g., GHG reductions are contributed by increases in NMT, but both of them were placed at the same outcome level). The same target was used both as outcome and output (e.g., new land use regulations). The target value of GHG reduction was different from the estimate in the LAC STAQ project document but how the target was set was not explained in the PAD.

b. M&E Implementation

The implementation of M&E was delayed due to the delay in setting the baselines and the lack of financial resources to properly collect data. The Bank team needed to significantly support M&E implementation. The GEF TA included the improvement of the methodologies to measure GHGs emissions. The Bank team helped the PCU and cities with GHG assessments.

c. M&E Utilization

The World Bank, SEDATU, and the cities closely monitored the development and completion of studies, which were intermediate outcome indicators. GHG assessment methodology financed by the GEF grant was utilized and adopted in PIMUS.

M&E Quality Rating

Modest

11. Other Issues

a. Safeguards

The Environmental Assessment safeguards policy (OP/BP 4.01) was triggered. The project was classified as an environmental category B project. No social safeguards policy was triggered.

The investment projects for which GEF financed preparation studies (BRT in Monterrey and León), were in compliance with the Environmental and Social Safeguards Framework for Urban Transport (Marco de Salvaguarda Ambiental y Social para el Transporte Urbano, MASTU). MASTU is a PROTRAM requirement for projects to be eligible to receive UTTP financing.

b. Fiduciary Compliance

Financial Management (FM)

Financial Management (FM) of the project complied with World Bank policies except for delays during the final stage of the grant. BANOBRAS did not submit the last two Interim Unaudited Financial Reports (IFRs) to the World Bank on time due to institutional changes in SEDATU. Eventually all IFRs were submitted. Audits were all unqualified. The counterpart funding was satisfactory.

Procurement

Despite delays especially due to changes in local administrations, the procurement processes complied with Bank policies without substantial problems. Only minor procedural deviations from procurement guidelines were identified throughout project execution. The Borrower ICR noted that project implementation, in some cases, was affected by the slow response of World Bank (ICR, May 26, 2016, page 36).

c. Unintended impacts (Positive or Negative)

Not applicable.

d. Other

Not applicable.

12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	---
Risk to Development Outcome	Modest	Modest	---
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	---
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	---
Quality of ICR		Substantial	---

Note
When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons

The following lessons were drawn from the ICR:

1. A clear scope of TA activities is important for accountability. The scope of the GEF grant and its components were only TA and studies. Its over-arching objectives were at a higher level. Achieving the objectives totally relied on counterpart funding, which significantly exceeded the GEF grant amount. The grant's timeframe was too short to realize the achievement of the objectives.

2. Additionality requirements in climate finance could induce overly ambitious commitments by the eligible beneficiaries. The competition to be an eligible beneficiary during the GEF TA appraisal made cities promise too much. The additionality requirement forced cities to link the studies to be financed by the GEF project with a large amount of actual investments within the short timeframe.

3. The conditionality of policy adoption--as a funding eligibility requirement--can help ensure that the investment was spent as intended. For the cities to implement the results of the GEF TA studies, they needed to develop and adopt the PIMUS (i.e., integrated sustainable mobility master plan).

14. Assessment Recommended?

No

15. Comments on Quality of ICR

This ICR is very detailed, analytical and candid. Lessons were based on the evidence and analysis.

a. Quality of ICR Rating
Substantial