

Document of
The World Bank

Report No: ICR00003364

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IBRD-71620 IBRD-76090)

ON A

LOAN

IN THE AMOUNT OF USD 130 MILLION TO THE
CAPITAL DISTRICT OF BOGOTA
WITH THE GUARANTEE OF THE
REPUBLIC OF COLOMBIA
FOR THE
BOGOTA URBAN SERVICES PROJECT

March 31, 2015

Transport & ICT Global Practice
Colombia and Mexico Country Management Unit
Latin America and Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 18, 2015)

Currency Unit =
2,586.52 COP = US\$ 1.00

COLOMBIA – GOVERNMENT FISCAL YEAR:
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Finance	
BRT	Bus Rapid Transit	
BUSP	Bogota Urban Services Project	
BUTP	Bogota Urban Transport Project	
CAF	Andean Development Corporation	<i>Banco de Desarrollo de América Latina (Corporación Andina de Fomento)</i>
CGR	General Comptroller's Office	<i>Contraloría General de la República</i>
CAS	Country Assistance Strategy	
CPS	Country Partnership Strategy	
CVP	Bogota Popular Housing Fund	<i>Caja de Vivienda Popular</i>
DAMA	Bogota Environment Administrative Department	<i>Departamento Administrativo del Medio Ambiente</i>
DANE	National Administrative Statistics Department	<i>Departamento Administrativo Nacional de Estadística</i>
DAPD	Bogota Planning Department	<i>Departamento Administrativo de Planeación Distrital</i>
EAB	Bogota Water and Sewer Company	<i>Empresa de Acueducto y Alcantarillado de Bogotá</i>
EIA	Environmental Impact Assessment	
EIRR	Economic Internal Rate of Return	
EMP	Environmental Management Plan	<i>Plan de Manejo Ambiental</i>
FM	Financial Management	
GDP	Gross Domestic Product	
GEIH	National Integrated Household Survey	<i>Gran Encuesta Integrada de Hogares-DANE</i>
GoC	Government of Colombia	
IADB	Inter-American Development Bank	
IBRD	International Bank for Reconstruction and Development	
ICR	Implementation Completion and Results Report	
IDU	Bogota Urban Development Institute	<i>Instituto de Desarrollo Urbano</i>
IPTS	Integrated Public Transport System	

ISR	Implementation Status and Results Report	
LAC	Latin America and the Caribbean Region	<i>Región de América Latina y el Caribe</i>
MHCP	Ministry of Finance & Public Credit	<i>(Ministerio de Hacienda y Crédito Público)</i>
MTR	Mid Term Review	
NDP	National Development Plan	
NO	No Objection	
NPV	Net Present Value	
NQS	Bogota Avenue NQS	<i>Avenida Norte Quito Sur</i>
PAD	Project Appraisal Document	
PCU	Project Coordination Unit	
PD	Bogota Development Plan	
PDO	Project Development Objective	
PFM	Public Financial Management	
PLMB	Bogota Metro First Line Project	<i>Primera Línea de Metro de Bogotá</i>
PMIB	Comprehensive Neighborhood Upgrading Program	<i>Programa de Mejoramiento Integral de Barrios</i>
POT	Land Use Plan	<i>Plan de Ordenamiento Territorial</i>
PPIAF	Public-Private Infrastructure Advisory Facility	
PPP	Public-Private Partnership	
RAP	Resettlement Action Plan	
RPF	Resettlement Policy Framework	
SDA	Bogota Environment Secretariat	<i>Secretaría Distrital de Ambiente</i>
SDP	Bogota Planning Secretariat	<i>Secretaría Distrital de Planeación</i>
SDM	Bogota Mobility Secretariat	<i>Secretaría Distrital de Movilidad</i>
SHD	Bogota Finance Secretariat	<i>Secretaría de Hacienda Distrital</i>
SIL	Specific Investment Loan	
SISBEN	Colombia National Beneficiary Program	<i>Sistema Nacional de Beneficiarios</i>
SITP	Integrated Public Transit System	<i>Sistema Integrado de Transporte Público</i>
STT	Bogota Transport and Traffic Secretariat, currently SDM	<i>Secretaría de Tránsito y Transporte, ahora SDM</i>
TDM	Travel Demand Management	
TPC	Traditional Public Transport	<i>Transporte Público Colectivo</i>
UAECD	Bogota Cadaster Unit	<i>Unidad Administrativa Especial de Catastro Distrital</i>
UPZ	Zoning Planning Unit	<i>Unidad de Planeamiento Zonal</i>

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COLOMBIA
Bogota Urban Services Project

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¹ Note: The length of this ICR is longer than recommended by ICR preparation guidelines. This ICR was prepared with a greater length justified by the project's complexity, having an Additional Financing operation, the more complex-than-usual results framework and having an implementation period of more than 11 years. The ICR guidelines mention that *"In special cases (e.g., very large or complex operations) a longer treatment is warranted to provide a full accounting of the operation with all critical information needed to explain the outcome and justify performance ratings."*

DATA SHEET

A. Basic Information			
Country:	Colombia	Project Name:	Bogota Urban Services Project
Project ID:	P074726	L/C/TF Number(s):	IBRD-71620,IBRD-76090
ICR Date:	03/09/2015	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	MUNICIPALITY OF BOGOTA
Original Total Commitment:	USD 100.00M	Disbursed Amount:	USD 123.93M
Revised Amount:	USD 123.93M		
Environmental Category: B			
Implementing Agencies:			
Secretaría de Hacienda Distrital -SHD			
Instituto de Desarrollo Urbano -IDU			
Secretaria Distrital de Movilidad -SDM			
Caja de Vivienda Popular -CVP			
Secretaría Distrital de Ambiente -SDA			
Secretaría Distrital de Planeación -SDP			
Unidad Administrativa Especial de Catastro Distrital -UAECD			
Cofinanciers and Other External Partners: Inter-American Development Bank – IADB			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	02/20/2002	Effectiveness:	08/05/2003	08/05/2003
Appraisal:	01/08/2003	Restructuring(s):		10/21/2008
Approval:	03/13/2003	Mid-term Review:	05/10/2006	05/10/2006
		Closing:	10/31/2007	09/30/2014

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Satisfactory
Risk to Development Outcome:	Low or Negligible
Bank Performance:	Moderately Satisfactory
Borrower Performance:	Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Satisfactory	Government:	Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately Satisfactory	Overall Borrower Performance:	Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Satisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Other social services	5	5
Sub-national government administration	10	10
Urban Transport	60	60
Wastewater Collection and Transportation	10	10
Water supply	15	15
Theme Code (as % of total Bank financing)		
Land administration and management	13	13
Municipal governance and institution building	24	24
Participation and civic engagement	25	25
Pollution management and environmental health	13	13
Urban services and housing for the poor	25	25

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Jorge Familiar Calderon	David de Ferranti
Country Director:	Gerardo M. Corrochano	Isabel M. Guerrero
Practice Manager/Manager:	Aurelio Menendez	Danny M. Leipziger
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ICR Team Leader:	Ramon Munoz-Raskin	
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F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The project development objective (PDO) is to improve urban living conditions by increasing access, coverage, quality, reliability, and inter-agency coordination in the provision of public transportation, sanitation services and potable water. The PDO used for the basis of the ICR evaluation is reflected in the Loan Agreement². The ICR rates the PDO as achieved.

Revised Project Development Objectives (as approved by original approving authority)

The PDO was maintained throughout the whole operation.

(a) PDO Indicator(s)

The outcome indicators were, by design, high level in nature in most cases and this ICR considers them as achieved. They remained throughout project implementation.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	<i>Improved quality of life</i>			
Value (quantitative or qualitative)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)
Date achieved	08/05/2003	10/21/2008	9/30/2014	09/30/2014
Comments (incl. % achievement)	Achieved. Improvements in quality of life were achieved through increases in access, coverage, quality, and reliability in the provision of public transportation, sanitation services and potable water to a population greater than original targets. The project implemented public transportation improvements that benefited 1.2 million, and contributed to universal access to water and sanitation by providing nearly 100,000 residents with access to water and nearly 380,000 residents with access to sanitation, according to average household size in selected Bogota boroughs. The project also contributed to improved quality of life for the residents of 1,995 housing units that were resettled away from high risk areas, legalizing 89 low-income neighborhoods and providing 534 new residential titles.			

² The PDO reflected in the Project Appraisal Document (PAD) was slightly streamlined for the purposes of the Loan Agreement but they are not inconsistent in terms of focus and relevant indicators. The PDO in the PAD was to improve urban livability by increasing access, coverage, quality, reliability and inter-agency coordination in the provision of transport, water, sanitation and related services, particularly for residents in low-income areas. The Project Paper (PP) for the Additional Financing (AF) added a second objective: to improve system sustainability by strengthening the institutional and administrative framework for efficient delivery of transport services throughout the city.

Indicator 2 :	<i>Improved inter-agency coordination</i>			
Value (quantitative or qualitative)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)
Date achieved	08/05/2003	10/21/2008	9/30/2014	09/30/2014
Comments (incl. % achievement)	Achieved. Improved interagency coordination for the delivery of public transportation, sanitation services and potable water was achieved through activities that included the design and implementation of new institutional arrangements, policies, strategies and instruments, and inter-institutional coordination improvements. These actions increased the city's budget financial sustainability (i.e. the city tax base was doubled) and capacity to plan and undertake multi-sectorial programs such as the PMB where SHD and CVP provided improved interagency coordination needed for program delivery.			
Indicator 3 :	<i>Decrease in travel time and costs</i>			
Value (quantitative or qualitative)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)
Date achieved	08/05/2003	10/21/2008	9/30/2014	09/30/2014
Comments (incl. % achievement)	Achieved. Improvements in transport infrastructure (including BRT trunk and feeder lines, access roads and bike lanes) improved urban living conditions of more than 1.2 million by providing decreases in travel time and costs. Travel time for the Av. Suba BRT corridor decreased by 25% (project target was 20%). Feeder lines provided modernized public transport services integrated with the BRT trunk lines with an integrated fare that eliminates transfer fare costs. Bike lane usage is a free transport option, and has contributed to an increase in bike modal share reaching 4% of total daily trips in 2008 according to mobility surveys.			
Indicator 4 :	<i>Improved administrative, operational, and planning capabilities of the participating institutions</i>			
Value (quantitative or qualitative)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)
Date achieved	08/05/2003	10/21/2008	9/30/2014	09/30/2014
Comments (incl. % achievement)	Achieved. The project improved administrative, operational, and planning capabilities of agencies that manage urban services including SHD, CVP, STT, DAPD, IDU and DAMA. This contributed to strengthening the institutional and administrative framework for efficient delivery of services throughout the city and increased sustainability for the city's planning, decision making processes and finances.			
Indicator 5 :	<i>Improved ability to manage supply and demand in the sector</i>			
Value (quantitative or qualitative)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)	Various (see intermediate outcome indicators)
Date achieved	08/05/2003	10/21/2008	9/30/2014	09/30/2014
Comments (incl. % achievement)	Achieved. The project contributed to an improved decision making framework to manage supply and demand in the public transportation, sanitation and potable water sectors through the development of policy and planning studies (including urban competitiveness and integration, a master mobility plan, etc.) and instruments (multi-			

	purpose cadaster, environmental monitoring system, etc.) that informed sectorial priorities decision making for the District. This was coupled with the increase in the District's budget associated with the reform of the taxing and cadaster units and processes that led to doubling the tax base and, ultimately, the District's ability to manage the sectorial needs.
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More information is provided in section F. (b) on intermediate outcome indicators, Section 3.2 and in Annex 2 of this ICR.

(b) Intermediate Outcome Indicator(s)

For the purpose of reporting intermediate outcome indicators, this ICR uses the outcome/output indicators identified after the project was restructured through an Additional Financing in 2008. This revised set of indicators, which could be considered as intermediate outcome indicators for the purposes of this ICR, was agreed upon the Implementing Agencies and the Bank to have a more relevant and measurable set of outcomes. This set of indicators provided an improved results chain logic between the outputs and the PDO.

Component A. Improved Mobility.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	A.1 Construction of Busways. Construction of physical works in Troncal Avenida Suba (% of completion)			
Value (quantitative or Qualitative)	0%	100%	n.a.	100%
Date achieved	08/05/2003	10/21/2008		9/30/2014
Comments (incl. % achievement)	Target met. The implementation of 10.2 km of BRT trunk corridor infrastructure has contributed to reduce travel times and increased the accessibility and mobility of the benefited communities. Along the Av. Suba corridor, average travel speeds increased from 12.7 to 20.1 km/h. This allowed decreasing the travel time along the corridor from 48 min to 31 min, thus representing a 25% decrease in the travel time to access employment and economic and social opportunities.			
Indicator 2 :	A.2 Construction of feeder routes. Construction of 265 km Transmilenio feeder routes ³			
Value (quantitative or qualitative)	0%	100%	n.a.	42%
Date achieved	08/05/2003	10/21/2008		9/30/2014
Comments (incl. % achievement)	Target partially met. The implementation of 111 km of BRT feeder lines has contributed to reduce travel times and increased the accessibility and mobility of the benefited communities. Construction of feeder lines also improved urban space for pedestrians, lighting and			

³ The 265km was the target set out in the Parent Loan Agreement. The target for this indicator was inadvertently reported as 338 km in the PP results framework. On the other hand, the District worked against a target of 111 km of feeder routes which was met.

	waste collection facilities and has reduced dust particles with interventions on unpaved areas.			
Indicator 3 :	A.3 Non-motorized transport. Construction of 36 km of bikeways ⁴			
Value (quantitative or qualitative)	0%	100%	n.a.	42% %
Date achieved	08/05/2003	10/21/2008		9/30/2014
Comments (incl. % achievement)	Target partially met. The implementation of 15 km of bikeways has contributed to provide more sustainable transport options and increased the accessibility and mobility of the benefited communities, since bikeway designs included connections to BRT stations with bike parking facilities.			
Indicator 4 :	A.4 Transit and Transport. Design of an Integrated Mass Transport System and Mobility Master Plan (study)			
Value (quantitative or qualitative)	0	n.a.	Study Completed	Study Completed
Date achieved	10/21/2008	n.a.	9/30/2014	9/30/2014
Comments (incl. % achievement)	Target met. The Mobility Master Plan was completed in 2005, providing the City of Bogota with information to understand the transport and mobility patterns and thus, information to support decision making and prioritization of investments.			
Indicator 5 :	A.5 Integrated Mass Transport System. i) Assessment of alternatives for the implementation of Bogota's integrated mass transport system (study); ii) Detailed engineering design for Bogota's First Metro Line (study); iii) Legal Structuring of Bogota's First Metro Line (study); iv) Financial Structuring of Bogota's First Metro Line (study); Social Assessment for Bogota's First Metro Line (study); Environmental Assessment for Bogota's First Metro Line (study).			
Value (quantitative or qualitative)	0	n.a.	Studies Completed	Studies completed or underway
Date achieved	10/21/2008	n.a.	9/30/2014	9/30/2014
Comments (incl. % achievement)	Target partially met. The study for the assessment of alternatives for the implementation of Bogota's integrated mass transport system was completed in 2011. The rest of the studies are currently underway and are expected to be completed in 2015. These studies will support informed decision making for the Bogota First Metro Line.			

Component B. Urban Upgrading.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 6 :	B.1 Planning and legalization of neighborhoods (<i>barrios</i>). Number of legalized neighborhoods			
Value	66	89	89	89

⁴ The target for this indicator was revised with the AF but inadvertently reported as 36 km. The actual target that the District worked against was 15 km of bikeways and was met.

(quantitative or qualitative)				
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. 89 barrios were legalized and 14 public information points were established in the following UPZ's: Verbenal, San Blas, La Flora, Diana Turbay, Yomasa, Lucero, Tesoro, Ismael Perdomo, Jerusalem, Tibabuyes, Patio Bonito, Bosa Occidental, San Isidro (Patios) and Lourdes. These actions improved the legal status of the communities and an increased voice and formal role in the city politics' community participation mechanisms.			
Indicator 7 :	B.2 Water and sewage improvements. Number of new water and new sewage connections.			
Value (quantitative or qualitative)	0	15,670 (water) 83,220 (sewage)	15,670 (water) 83,220 (sewage)	30,350 (water) 119,850 (sewage)
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met and exceeded. Implementation of new water and sewage connections have allowed increased coverage of water and sewage services to low income families, and thus have increased their quality of life. The target was met and exceeded by 193% for water connections and exceeded by 143% for sewage connections.			
Indicator 8 :	B.3 Access roads. Construction of 95 km of local road networks (% of completion)			
Value (quantitative or qualitative)	0%	100%	100%	100%
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. The Project has improved the accessibility and mobility of urban dwellers with 95 km of local road networks. This improvements also include urban furniture, street lighting (increasing perception of security and safety at nights) and inclusive urban design for persons with disabilities. The local road network is served by regular street cleaning services and improved waste collection routes which improve the physical condition of sidewalks.			
Indicator 9 :	B.4 Resettlement. Number of families resettled in high risk zones			
Value (quantitative or qualitative)	n.a.	n.a.	1,641	1,995
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met and exceeded. The target population of this program was 1,641 families located in the UPZ's priority, high-risk areas subject to threats of landslides and soil removal. The projects exceed the resettlement target achieving 1,995 families (122% of the original target). The program included personalized attention, as well as technical assistance, payment for improvements and a unique value of recognition pricing methodology in accordance with best practices of Bank Safeguards which set the standard for resettlement mechanisms still in use today			
Indicator 10:	B.5 Public Space. Number of public works with community participation			
Value (quantitative or qualitative)	0	50	55	55
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met and exceeded. The Project built 55 public space small works improvements in prioritized UPZs (110% of the original target). Improvements included parks,			

achievement)	pedestrian access (stairs, ramps, etc.) and pedestrian infrastructure with a participatory design process and direct hiring of the community. Benefits included urban space livability, increased sense of security due to improved lighting, a greater sense of ownership and demand for construction jobs.			
Indicator 11:	B.6 Environment. Number of environmental mitigation plans			
Value (quantitative or qualitative)	0	2	2	2
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. Through participatory development, the Project developed environmental management plans for low income settlements/areas including Ciudad Bolivar, Altos de la Estancia, Quebrada La Hoya del Ramo and two hectares of degraded areas. The environmental plans set the footprint for other plans developed for subsequent city projects.			
Indicator 12:	B.7 Housing improvement. Technical assistance to families in urban upgrading zones (No. of attended families) and Finalize 440 land titles.			
Value (quantitative or qualitative)	0	1066 (TA) 436 (titles)	1066 (TA) 440 (titles)	1,559(TA) 534 (titles)
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met and exceeded. The project provided technical assistance to low income families in urban upgrading areas (1,559 families were assisted, 146% of the original target). This provided and increased sense of ownership in the resettlement process and improved the quality of life of the families benefited by assisting in the process and designing context-sensitive solutions for their housing. The project finalized land titles of 534 new residential titles (121% of the original target) improving the quality of life of the benefited low-income owners through formalizing their residential units legal status.			

Component C. Institutional Strengthening.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 13:	C.1 Technical Assistance to IDU. i) Implementation of Administrative System; ii) Inventory and diagnostic of arterial road network system (% of total road network); iii) Inventory and diagnostic of arterial road network system (% of total road network); iv) Inventory and diagnostic of Bogota's vehicle and pedestrian bridges under Phase II; v) Technical Specifications – TE 2005; vi) Erosion Resistance Tests for Materials Used as Basis for Hydraulic Concrete Pavement			
Value (quantitative or qualitative)	0	Implemented	Implemented	Implemented
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. Institutional efficiency improvements to IDU were achieved through the implementation of an administrative system. Information to support decision making for project prioritization was developed through an inventory and diagnostic of Bogota's vehicle and pedestrian bridges, technical specifications, and erosion resistance tests for materials used as basis for hydraulic concrete pavement. Of special relevance was the			

	development of an inventory and diagnostic of arterial road network system with state-of-the art technology and systems that will assist the city in optimizing the economic efficiency of maintenance improvements investments in its road network through modern asset management, thus contributing to improvements in urban mobility and city competitiveness.			
Indicator 14:	C.2 Technical Assistance to CVP. Monitoring System for the PMIB (Programa de Mejoramiento Integral de Barrios)			
Value (quantitative or qualitative)	0	Implemented	Implemented	Implemented
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. CVP improved the efficiency for the urban upgrading program through the implementation of a monitoring system.			
Indicator 15:	C.3 Technical Assistance to DAMA. Implementation of the city's Clean Air Strategy			
Value (quantitative or qualitative)	0	Implemented	Implemented	Implemented
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. DAMA Improved the city's environmental management through technical support to monitor mobile emission sources, modernization and enhancement of the city's environmental monitoring system and environmental awareness dissemination and education campaigns. During project implementation DAMA was reformed to become the <i>Secretaria Distrital de Ambiente</i>			
Indicator 16:	C.4 Technical Assistance to DAPD. i) Formulation of the Strategic Directives for the District's Resettlement Policy; ii) Support and development of studies on Urban Competitiveness; iii) support and development of regional integration studies. During Project implementation DAPD was reformed to become the <i>Secretaría Distrital de Planeación</i> .			
Value (quantitative or qualitative)	0	Implemented	Implemented	Implemented
Date achieved	08/05/2003	10/21/2008	10/21/2008	10/21/2008
Comments (incl. % achievement)	Target met. Improved decision making through the development and implementation of the District's resettlement policy and support and development of urban competitiveness and integration studies.			
Indicator 17:	C.5 Technical assistance to SHD. i) Studies to improve fiscal management and tax collection; ii) Reform to the Cadaster's institutional architecture; iii) Upgrading of 3 cadastral processes (updating, upgrading and cartography) to meet international standards; iv) Updated properties with cadastral information incorporated to the Cadaster's new database (integration of graphic and alphanumeric information) system (no. properties); v) Integrated real-estate information repository (PPP); vi) Design and implementation of spatial data infrastructure for Bogota.			
Value (quantitative or qualitative)	0	n.a.	Implemented	Implemented
Date achieved	10/21/2008	n.a.	07/31/2011	9/30/2014
Comments (incl. % achievement)	Target met. SHD improved its institutional efficiency and the District's fiscal sustainability through studies that led to a series of institutional reforms and modernization processes aimed at increasing administrative and technical capacity and			

	<p>capability, including the property registration system, the cadaster unit and the Bogota tax collection system. The project improved the spatially-based management of the city and strengthening of the District's finances and tax collection (particularly property tax) as a result of an upgrading of the District's cadastral information and the development of a multipurpose cadaster for spatial functions of municipal governance. Thanks to the project, there were significant improvements in tax collection through more efficient processes; the number of registered properties in the cadaster has increased three fold to more than 2.3 million; the upgrading process for the cadaster unit has updated the city-wide cadaster inventory, reducing from 5 to less than 1 year the updating lag; and the property tax income base for the city has approximately duplicated. An updated aerial photography mapping of the city to support planning and informed decision making has also been prepared.</p>
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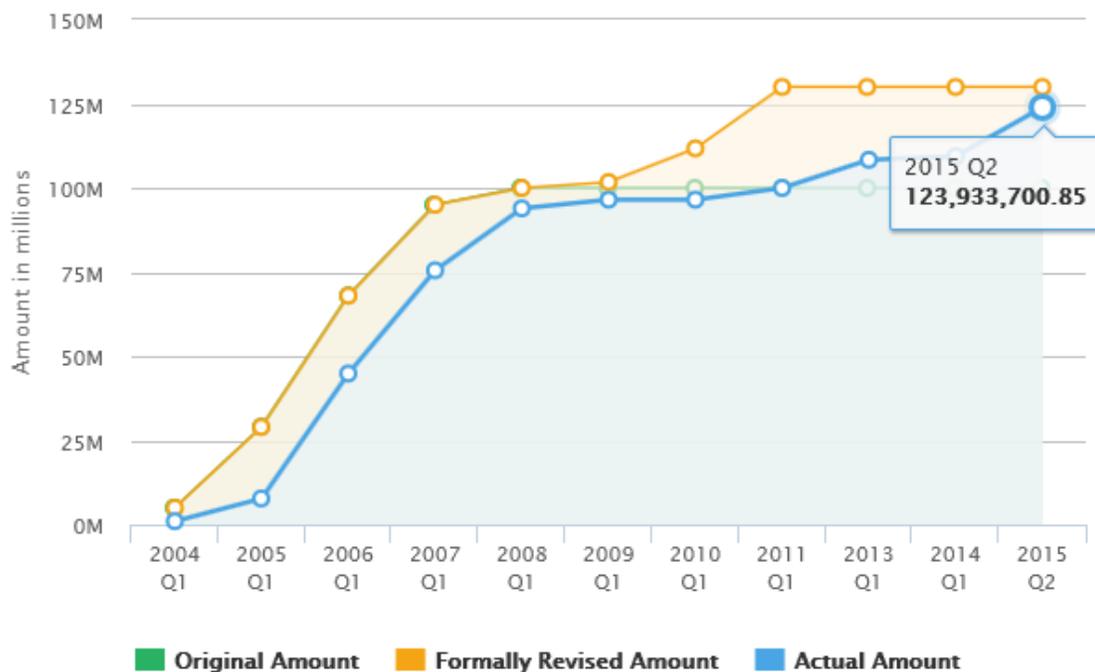
G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	Development Objective (DO)	Implementation Progress (IP)	Actual Disbursements (USD millions)
1	05/24/2003	Satisfactory	Satisfactory	0.00
2	11/05/2003	Satisfactory	Satisfactory	5.71
3	06/02/2004	Satisfactory	Satisfactory	7.74
4	11/15/2004	Satisfactory	Satisfactory	17.77
5	12/01/2004	Satisfactory	Satisfactory	17.77
6	05/02/2005	Satisfactory	Satisfactory	28.57
7	11/28/2005	Satisfactory	Satisfactory	44.88
8	06/05/2006	Satisfactory	Satisfactory	59.88
9	12/12/2006	Satisfactory	Satisfactory	75.52
10	06/21/2007	Satisfactory	Satisfactory	75.52
11	12/17/2007	Satisfactory	Highly Satisfactory	97.61
12	06/23/2008	Highly Satisfactory	Highly Satisfactory	96.52
13	12/06/2008	Highly Satisfactory	Highly Satisfactory	96.52
14	06/05/2009	Highly Satisfactory	Highly Satisfactory	96.52
15	12/23/2009	Highly Satisfactory	Highly Satisfactory	96.52
16	06/21/2010	Satisfactory	Highly Satisfactory	100.00
17	02/25/2011	Satisfactory	Satisfactory	103.42
18	08/09/2011	Moderately Satisfactory	Moderately Satisfactory	106.04
19	12/05/2011	Moderately Satisfactory	Moderately Satisfactory	106.04
20	05/19/2012	Moderately Satisfactory	Moderately Satisfactory	106.04
21	02/06/2013	Moderately Satisfactory	Moderately Unsatisfactory	108.35
22	10/08/2013	Moderately Satisfactory	Moderately Satisfactory	109.41
23	03/30/2014	Moderately Satisfactory	Moderately Satisfactory	111.77
24	10/15/2014	Moderately Satisfactory	Moderately Satisfactory	115.27

H. Restructuring (if any)

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
10/21/2008		Highly Satisfactory	Highly Satisfactory	96.52	AF to support Component 1 and 3

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

1. The rapid urbanization of Latin America during the 1960s and 1970s led to the consolidation of highly urbanized countries. In Colombia, this urbanization process led to the consolidation of urban agglomerations as centers of economic growth. At time of appraisal, between 2000 and 2003, GDP growth in large and mid-sized Colombian cities was one percent higher than the national figure, as opposed to what occurs in countries like Mexico and Brazil, where non-urban sectors were more dominant over the same period of time. At the time of appraisal, it was estimated that two thirds of the population living below the poverty line was located in urban areas. A large part of the urban poor lived in the cities' periphery and lacked access to reliable and affordable transportation services.

2. Historically, Bogota has been Colombia's largest urban agglomeration and economic powerhouse. At appraisal, Bogota's estimated population was 7 million. At that time the city experienced an important infrastructure gap, and a large proportion of the urban poor did not have access to reliable, affordable, and efficient urban services, including housing, water and sanitation and public transport. As a result, many urban poor remained excluded from economic opportunities, health facilities and interaction with the rest of the community. Bogota's infrastructure gap was made evident through pathologies common to large cities, including (i) inadequate management of the public transport system; (ii) deficient land-management policies, which had led to unregulated urban growth and the development of irregular settlements in environmentally sensitive areas or those in which it is technically or financially difficult to provide adequate services; (iii) unsatisfied demand for basic urban services, including housing, water and sanitation provision and access to quality public transport, in particular for populations migrating from rural areas; (iv) high unemployment and underemployment rates, reaching levels of 10.4 percent and 37.1 percent, respectively; and (v) urban crime, perceived insecurity and violence (19 murders per 100,000 inhabitants). Nevertheless, at the time of appraisal, the city was going through a decade of structural changes in the administration of urban services, which allowed planning for significant improvements in public services provision. These changes included an enabling environment for sound fiscal management and good governance practices, which allowed providing for financing mechanisms for ambitious infrastructure investment plans. This was the first step that later allowed for the city to embark in an internationally recognized program of sustained investments in infrastructure aimed at closing the infrastructure gap.

3. The BUSP was designed to assist Bogota to implement a strategic portion of its Development Plan (*Plan de Desarrollo*, PD) consistent with the ten-year spatial plan (*Planes de Ordenamiento Territorial*, POT). The focus was issues of affordable housing, improvement of informal and marginalized settlements, improvement key areas such as public transport, comprehensive road maintenance, and inter-agency coordination, to improve the wellbeing and quality of life of the urban population. At time of appraisal, the PD focused on collectively building an inclusive and equitable city. At that time, Bogota had undergone a positive process of improved municipal operation framework which made possible requesting that the Bank prepared a multi-sectorial project with a special focus on low-income neighborhoods, the BUSP, which also represented an innovation in the type of engagement that the urban sector of the Bank was used to with projects in Colombia. The underlying principle for multi-sectorial interventions was that there would arguably be more impacts and efficiency associated with well planned, community-driven holistic approaches than isolated, uncoordinated sectorial improvements across the city. The Project was also consistent with the Bank's 2003 Country Assistance Strategy (CAS) which gave high priority to the promotion of competitiveness in the productive sector and to the improvement of high quality basic infrastructure services for the least privileged segments of the population.

4. Lessons learned from the Bogota Urban Transportation Project – BUTP (Loan 4021-CO), completed shortly before the Bogota Urban Services Project (BUSP) was being prepared, were applied during the preparation of the BUSP. The BUTP helped finance an investment program in public transport and supported comprehensive small-scale pilot interventions in low income neighborhoods with a holistic multi-sectorial approach. This allowed having supporting evidence and experience to introduce innovative policies in the provision urban services beyond urban transport through the BUSP and scale-up activities to a programmatic approach. Examples included an efficient coordination mechanism among participating entities, as well as institutional, financial and administrative arrangements. The project also benefited from experience in planning and designing the successful experience of the implementation of the flagship Transmilenio bus rapid transit system (BRT), allowing scaling-up these activities through the expansion of the system in its trunk, feeder and non-motorized transport accessibility and mobility improvements.

1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)

5. As stated in the Loan Agreement, the PDO for the Project was to improve the Borrower’s urban living conditions by increasing access, coverage, quality, reliability, and inter-agency coordination in the provision of public transportation, sanitation services and potable water. The Key indicators were presented as key performance indicators in the PAD. Among the key performance indicators are the following:

6. Low-income neighborhood upgrading: (i) number of neighborhoods legalized; (ii) number of sites (UPZs) upgraded; (iii) number of very poor households (strata 1&2) reached; (iv) improved accessibility and mobility (either via Access or Feeder roads to the Transmilenio line); (v) increased potable water, surface drainage and sewerage connections; (vi) improved tenure security; (vii) improved access to sidewalks, parks, community and recreation facilities, and (viii) increased number of community development initiatives completed.

7. Transport-related improvements: (i) increased accessibility to 14 UPZs; (ii) increased accessibility of feeder routes to the Transmilenio system by improving the quality of the roads; (iii) increased share of trips made via public transport; (iv) decreased average travel times and vehicle operating cost; (v) reduced accident rate; (vi) increased length and use of bike paths.

8. Technical Assistance indicators in support of the POT and the current administration's PD: (i) implementation of recommendations from the different specialized studies done under the previous urban transport project, notably, those on accidents, parking, operation of public transport and traffic management; (ii) upgraded Air Pollution Monitoring Network and DAMA's Air Quality Management Plan reviewed and revised; (iii) agreement on a regional development planning framework; and (iv), strengthening of various sector institutions such as the District's low income housing entity, the *Caja de Vivienda Popular (CVP)*, its traffic and transport entity, the *Secretaría de Tránsito y Transporte (STT)*, its transport construction and maintenance entity, the *Instituto de Desarrollo Urbano (IDU)*, its finance and tax management entity, the *Secretaria de Hacienda Distrital (SHD)*, and the planning entity, *Departamento Administrativo de Planeación Distrital (DAPD)*.

1.3 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

9. The project, as restructured in 2008 through the AF, maintained the Original PDO in the loan agreement, as it only scaled up project activities. The proposal for AF originated from discussions between

the Bank and the District to identify options to support the District's new program for urban transportation, which was a key element of the original project design.⁵

10. Based on the findings of the Project's Mid Term Review (MTR) conducted in October 2006, the key indicators were also modified with the restructuring. The Project's result framework was reduced to a shorter list of indicators to eliminate those that were not feasible to be measured or that would not be causally linked to the project's outcomes. As stated in the Project Paper (PP) for the AF, the key performance indicators were: For Component A. Improved Mobility: A1) Construction of physical works in *Troncal Avenida Suba* (% of completion); A2) Construction of 265 km Transmilenio feeder routes; A3) Construction of 36 km of bikeways; A4) Design of an Integrated Mass Transport System and Mobility Master Plan (study); For Component B. Urban Upgrading: B1) Number of legalized barrios; B2) Number of new water connections and number of new sewage connections; B3) Construction of 95 km of local road networks (% of completion) ; B4) Number of families resettled in high risk zones; B5) Number of public works with community participation; B6) Number of environmental mitigation plans; and B7) Technical assistance to families in urban upgrading zones (No. of attended families) and Finalize 440 land titles. For Component C: Institutional Strengthening: C1) Implementation of Administrative System; C2) Monitoring System for the PMIB; C3) Implementation of the city's Clean Air Strategy; C4) Formulation of the Strategic Directives for the District's Resettlement Policy; C5) Support and development of studies on Urban Competitiveness and Studies to improve fiscal management and tax collection.

1.4 Main Beneficiaries

11. As per the PAD, the benefits of the proposed project would accrue to several groups in diverse ways. The upgrading component was expected to provide improved quality of life through increased access to basic services for about 600,000 of the poorest residents in Bogota, which corresponded to about 50% of the low income population (of Strata 1 and 2) living in illegal settlements and 36% of the residents living in poverty (SISBEN 1 and 2). To the degree that the component achieved its goals, it would also provide with a model for addressing similar needs for most of the estimated 1,500 informal settlements in Bogota. The improved mobility component would provide benefits to all City residents considering that, in addition to travel time savings and reduced cost of travel associated with the physical works, the transport studies, road safety policy and traffic administration would ultimately indirectly benefit the whole population. With regards to the institutional strengthening component, improving the efficiency, responsiveness and operation of the various project sector entities would also have an indirect beneficial impact to the competitiveness of the region and, therefore, to all its inhabitants. The 2008 restructured project scope continued indirectly benefiting the entire population of Bogota through studies for improved mobility and institutional strengthening.

1.5 Original Components (as approved)

12. **Component A: Improved Mobility: US\$ 215.12 million (IBRD: \$74.16 million), about 67.3% of total project cost.** This component included the expansion of the second phase of the Transmilenio system and improved access to public transport. It comprised the following activities: (i) construction of busways in *Av. Suba* from *Calle 80* to *Avenida Ciudad de Cali*; (ii) upgrading and rehabilitation of feeder routes which connect neighborhoods to the Transmilenio system as part of an integrated system; (iii) construction of bicycle paths and sidewalks as part of non-motorized transport facilities; and (iv) measures for improving public transport, road safety and traffic administration in Bogota.

⁵ The District made a formal request for additional Bank financing on April 4, 2008. The Bank indicated its interest in pursuing AF scope associated with the urban upgrading component but the District did not prioritize the continuation of the PMIB Program (at the time, the administration's focus was to implement affordable housing construction programs).

13. **Component B: Urban Upgrading: US\$ 76.34 million (IBRD: \$28 million), about 23.9% of total project cost.** This component supported the activities of the Programa de Mejoramiento Integral de Barrios (PMIB), which is the District's urban upgrading program derived from the PD and POT. The infrastructure works comprised: (i) planning and legalization of neighborhoods; (ii) construction of storm water drainage systems, water and sewerage systems; (iii) upgrading and rehabilitation of access roads; (iv) resettlement of population located in high risk areas, including flood plains; (v) construction and rehabilitation of public space and community services; (vi) improvement of environmental conditions; and (vii) technical assistance for home improvement and land titling activities. The social activities associated with the physical works included: (i) promoting citizen culture, (ii) strengthening social organizations, and (iii) assisting vulnerable population.

14. **Component C: Institutional Strengthening: US\$ 27.12 million (IBRD: \$20.7 million), about 8.5% of total project cost.** This component aimed at improving the performance of the institutions in delivering urban services through activities that guaranteed the social, environmental and financial sustainability of the works undertaken by the project. The activities include technical assistance for District institutions working in areas ranging from transport, housing and environmental management sectors (IDU, CVP, *Secretaria Distrital de Ambiente* (SDA) former *Departamento Técnico Administrativo del Medio Ambiente -DAMA*), to planning and financing urban development activities (SDP and SHD). Specifically, this component supports the following actions: (i) equipment and consulting services to develop an information system for road infrastructure administration (IDU); (ii) creation of mechanisms to improve the coordination among District institutions, community organizations, NGOs and the private sector for the implementation of neighborhood improvement programs (CVP); (iii) environmental studies and equipment for improving air quality management and enforcement and recovering of land-degraded UPZs (SDA); (iv) preparation of mobility, housing and regional policies which would provide input for the development of future policy measures in the city; (v) studies and consulting services for strengthening fiscal management and increasing District revenue (SHD); and (vi) consulting services and equipment for the Project Coordinating Unit (PCU).

1.6 Revised Components

15. The original components were maintained throughout implementation. The Project, as restructured in 2008 through the AF, included scaled up activities in two components. Under the original project's **Component A: Improved Mobility**, the Loan included the expansion and improvement of Bogotá's integrated urban public transport network with special emphasis on the development of the first line of a proposed metro (about 53.7% of the AF Bank's contribution). Specifically, this component would support the following activities: (i) social and environmental analysis and assessment for metro construction; (ii) final detailed engineering design studies; (iii) structuring of the financial and legal arrangements for metro construction and operation, including all technical, financial, and legal activities related to the structuring of a Public Private Partnership arrangement for metro operation; and (iv) support for the implementation of the integration of public transport.

16. Under the original project's **Component C: Institutional Strengthening**, the Loan included activities to strengthen the capacity of the District in areas of fiscal management and urban planning (about 46.3% of the AF Bank's contribution). As regards the cadaster, goods and consultant services would be procured to: (i) undertake a set of urgent short-term activities to support the 2008 land tax valuation exercise, including social outreach, consultancies in valuation methodologies, and the implementation of a policy reform package to mitigate social consequences of property tax increases; and (ii) undertake a more medium-term program of reform, capacity building, and technical upgrading, including an overall restructuring of the business model and institutional design of the cadaster unit, a business process reengineering of the updating processes and the development of a true multi-purpose cadaster with interoperability with both the property registry and public service providers, a major upgrading of the unit's IT capacity, a broad program of public outreach and communication focused on social impacts, and the

necessary legal and technical studies to support policy reforms and regulatory improvements. Financing would also support technical assistance to IDU to improve the management of the city's road network and continue their diagnostic and assessment to determine overall maintenance and rehabilitation costs for years to come. Specifically this includes: (i) institutional strengthening of IDU, particularly in the adoption of technical and financial mechanisms to improve management of the city's road network system and determine overall investment, maintenance and rehabilitation costs; (ii) scaling up of IDU's technological and managerial capacity by improving and integrating information systems and databases, in order to enhance monitoring and evaluation of project development and impact; and (iii) analytical and consulting work in several research areas related to road pavement improvement and cost-saving alternatives, including pavement alternatives for low-volume transit and local roads, pavement material erosion, etc.

1.7 Other significant changes

17. **Additional Financing.** An AF loan of US\$30 m was approved in October 2008 (signed in February 2009) to scale up the project's impact and development effectiveness through the support to the District's new program for urban transportation, which was a key element of the original project design, and to support IDU and SHD with institutional strengthening activities. The scaled up activities were associated with Component A. Improved Mobility (US\$16.1 m) and Component C. Institutional Strengthening (\$13.9 m). The AF was considered the best available mechanism at the time to rapidly and effectively meet the District's needs. In addition to the US\$30 m of Bank financing, US\$32.6 m would be provided as counterpart funding⁶. Through the AF, PDO indicators were reduced to a shorter list to eliminate indicators that were not feasible or would not represent significant outcomes commensurate with the Project.

18. **Loan Extensions and Additional Financing.** Cumulative extensions of the Loan's closing date totaled 83 months, including the extensions for the Parent Loan and the AF and its extensions. The original closing date was October 31, 2007 and the final closing date was September 30, 2014 (the Parent Loan scope was extended until July 31, 2010). For the Parent Loan, the extensions were approved to allow the completion of individual subprojects -which also permitted a seamless transition to the AF. Five of the eight extensions were directly related to the AF metro studies scope to allow for the studies to be completed after the lengthy procurement process was finalized.

19. **Implementation arrangements.** In January 2010, the Loan was amended to modify executing agencies. The rationale for the change was that the arrangements from the original project were no longer current. For Part A.5 of the Project—Improved Mobility, the SHD requested the inclusion of IDU as the executing agency of this component since the focus of this component would be the design of Bogota's First Metro Line which was going to be handled by IDU. In line with the scope of these studies, the District of Bogotá decided that the SDM would handle all the policy and strategic decisions that will be raised as part of these studies, while the IDU would manage the detailed engineering study for Bogota's First Metro Line because they had stronger in-house technical capabilities than the SDM. Likewise, for Part C.5 of the Project (Technical Assistance to SHD) the SHD requested a change in the executing agency to Bogotá's Cadaster Unit, since this Project sub-components foresaw technical assistance to strengthen institutional, operational and technical capabilities.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

20. **Background analysis.** The PAD includes extensive information that portrays a satisfactory analysis of the project sourcing from local information such as the POT, or information produced under the

⁶ Counterpart funding included a Loan for US\$10 from the Inter-American Development Bank (IADB) to Bogota, signed on August 13, 2009 and implemented by the Mobility Secretariat (SDM).

auspices of other Bank operations such as the BUTP (Loan 4021-CO), and supporting core CAS goals of promoting peace through: fast and sustainable growth; sharing the fruits of growth and building efficient, accountable and transparent governance. Project preparation for the urban upgrading component was supported by extensive analytical work to conduct the design and ex-ante evaluations of the benefits of the projects funded with a Bank-funded Japanese Trust Fund that facilitated scoping and prioritizing the activities. For the AF, the Bank conducted analytical work to support the new activities, including an analysis to design the cadaster work with mobilization of Bank experts that assisted the District with diagnosing the problem and selecting options to design the program. The AF supported the 2008-2012 CPS goals stressing the importance of enhancing access to services in an environmentally sustainable manner as a way to foster inclusive growth and expand opportunities for shared prosperity and increased productivity.

21. **Assessment of Project Design.** The Project was conceived as an instrument to support the District's POT and PD through activities that spanned across sectors and with a special emphasis on the poorest areas of the City. Due to the inherently multi-sectorial approach to urban upgrading and for which institutional coordination of city sectorial entities was necessary, the project was designed to enhance institutional capacity and coordination among implementing agencies as a key aspect for successful project implementation and the achievement of outcomes. The project aimed at supporting interventions that had an integral approach to the benefited neighborhoods- with the understanding that this holistic approach would have more impact than isolated sector-specific interventions across the city. Urban upgrading activities had a particular pro-poor emphasis since the neighborhoods that would be benefited were predominantly populated by low income and vulnerable population. The Project incorporated in its design the lessons and experience identified in previous urban transport and urban projects both in Colombia and globally. Some of the lessons included are as follows: In the case of urban upgrading for low income neighborhoods, the project would take account household preferences in the process of selecting urban upgrading works; in the case of urban mobility, the project capitalized on the experience from the implementation of previous Transmilenio BRT system both in the engineering design, but also to improve the approach to reinsert the informal public transport sector labor into the new modernized system in a more equitable fashion and with better incentives for acceptability. Finally, for project implementation, instead of creating special units to implement the components, the project would strengthen the already existing units in the entities to facilitate institutional capacity sustainability while there was a single coordinating agency, SHD, for the whole Program that had extensive knowledge in working with the Bank.

22. **Objective and Indicators.** There was one PDO but it was complex and not well defined qualitatively or quantitatively⁷. The five outcome indicators were in most cases, by design, high level in nature, did not have methodologies to monitor them and in some cases did not provide baselines. The original project provided a multiplicity of outputs which demonstrated significant work to gather data for project preparation, but some indicators did not have a baseline and almost all lacked a methodology to measure results. There is a linkage between the outputs, outcome indicators and PDOs, but an explicit explanation was not provided. The Bank and the implementing agencies identified the need to revisit the Monitoring & Evaluation - M&E framework during the MTR and the Bank reiterated the importance to do it in every supervision mission, but the Project was not restructured accordingly until the AF was approved in 2008. At that time, the results framework was modified to have a more relevant and measurable set of outputs while the outcomes were not changed. The ICR views these actions as a valuable good-faith effort but insufficient to provide an adequate results framework to effectively fully understand whether the outcomes and the objectives of the project were achieved, although not adversely impacting the project's focus on achieving its PDO.

⁷ For the purposes of this ICR, the prevailing PDO is the one used in the Loan Agreement. In this case, having one PDO was consistent with having a single, multi-sectorial, approach to urban improvements for the benefited neighborhoods. This was not an uncommon practice in Bank-approved operations at that time.

23. **Poverty targeting.** The PDOs from the PAD explicitly mentioned that the project would have a particular focus on low-income areas (although the mention was not included in the language in the Loan Agreement), and project components would have a direct positive impact on the poor, especially the urban upgrading and mobility components.

24. **Components and organization.** Components were few and well supported with studies and evidence linked to the District's POT and, especially for the urban upgrading, with a solid explanation on how they were prioritized to maximize development outcomes. The Project Coordinating Unit (PCU) within the SHD, which was created for the BUTP, continued to provide similar functions and was instrumental in harmonizing procedures and coordinating communications for loan purposes in light of the complexity of having six implementing agencies. The SHD would provide overall coordination of the program and would be the main interface with the Bank, while specific arrangements would be created to implement each project component. In the case of Component 2 Urban Upgrading, the CVP assumed the technical coordination. While the objective of the project included promoting interagency coordination, having this large amount of implementing agencies was, while well managed, complex due to different levels of institutional priorities. Capacity and knowledge of Bank procurement and financial management policies and procedures was required and this was addressed through training and support from SHD. Overall, the components and project organization was adequate to facilitate project implementation.

25. **Adequacy of government's commitment.** Throughout preparation, the project maintained high level of relevance in the political agenda, and was fairly well supported by the District, which positively influenced its implementation. The urban mobility activities associated with the Transmilenio BRT were already a flagship project, and the urban upgrading projects became a key program for the District's visibility in front of its constituents. In the case of the preparation of the AF, the District requested support for one of its most important flagship projects- the studies for the First Metro Line. The Bank and the District identified other priority activities where the Bank could add value and included the reform of the cadaster and the continuation of the work to improve the information for the road network as these activities were consistent with Component C Institutional Strengthening.

26. **Risks.** The risk analysis was well prepared. Policy and coordination risks and mitigation measures were clearly identified. However, political risks and risks associated with weak institutional capacity and capability in the executing agencies were not given sufficient attention. Another risk area that was not identified was the scope, schedule and cost deviation risks for the urban upgrading program in light of the limited local experience in design and implementation of the urban upgrading activities once taken from pilot interventions to a city scale massive program. Risks associated with the metro studies were well identified in the AF PP.

2.2 Implementation

27. **Readiness to implement.** At appraisal, the Bank properly analyzed the project's technical, economic, financial and social and environmental aspects in compliance with OMS 2.2. When approved, the project was ready for implementation. In general, the project readiness was satisfactory.

28. **Delays in Project execution.** Implementing agencies typically had a steep learning curve to internalize Bank safeguards and fiduciary policies. Initially, through continuous and extensive training activities, the Bank heavily supported the building of these competencies at the PCU and Implementing Agencies, which had to develop specialized procurement, environmental and social units from the ground up within their existing teams. These initial challenges were overcome on the safeguards side but with mixed results on the fiduciary capacity due to staff turnover and not fully dedicated staff to financial management and procurement. Other delays in execution were the result of design refinements/completion and land acquisition/clearance processes.

29. **Delays in Metro Line study procurement process.** The procurement process for the advanced engineering studies for the First Metro Line was complex and lengthy. It had challenges that included (a) delays by the implementing agency to comply with the Bank's procurement recommendations; (b) a request by the National Government Comptroller's Office (*Contraloría General de la República*) to temporarily suspend the procurement process to allow investigations on the cost and scope of the detailed engineering design studies; and (c) delays associated with the transition periods between incumbent and elected mayors. The Bank conducted trainings to IDU personnel on Bank procurement for large consulting services and, specifically, for evaluation of technical proposals. However, arguably the Bank also took lengthier-than-usual response times to requests for No Objections (NO) due to the inherent complexity of one of the largest procurement processes for highly technical consulting services in the history of the Bank. The internal Bank due diligence to meet with procurement policies required increased coordination among internal Bank divisions to provide clear, definitive responses to IDU. All the steps of the procurement process took 27 months between the IDU's submission of the report with the evaluation of technical proposals for NO until the Bank provided the NO for contract award. The Loan was extended five times (34 months) - as the procurement process advanced- to accommodate the implementation of the studies during the loan timeline after the procurement process was completed.

30. **Actions taken in response to problems.** In addition to the bi-annual supervision missions conducted by the task team, field staff provided a continued support to the project, therefore establishing an adequate way to rapidly react to challenges. Supervision missions would document issues where the Client would need to pay special attention and request action plans on an as needed basis. In the case of the metro studies, the Bank understood the importance of providing a greater degree of technical assistance due to the District's lack of experience and technical knowledge to pursue these complex megaprojects, and in 2014 executed a PPIAF-funded TA to support the District with financial options for the metro project structuring and risk analysis. This support, coupled with technical assistance through international consultants and tapping the Bank's global expertise, provided significant value to the project. The Bank also provided important convening power for the District Government and National Government to discuss the way forward for the metro project and agree on a common agenda.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

31. **M&E Design and Implementation.** Implementation of the M&E activities was performed by the PCU with the collaboration of the implementing agencies, each of which developed its own monitoring system in consistency with the PDO and the intermediate outcome indicators and coordinating with the PCU. There were M&E design limitations as described in Section 2.1 above but it is considered that the results framework did not limit the project from remaining focused and achieving its PDO to the extent it was envisaged. A comprehensive ex-post evaluation of the Original Project was contracted in 2008 to an external consulting firm by SHD. This evaluation provided significant information on the project's achieved outputs, conducted an ex-post economic evaluation of the urban mobility activities associated with BRT implementation, conducted an incidence analysis of the population that benefited by specific project activities and provided information on project implementation.

32. **M&E Utilization.** Since the AF scale up of activities added new activities and occurred when the majority of project outputs for components 1 and 2 had been achieved, there was no further monitoring of outputs of the activities already completed. In terms of outcomes, no direct monitoring was conducted during the project and the only relevant quantitative information available was produced during the evaluation mentioned above. Throughout the duration of the project, the ISRs were used to monitor outputs but did not totally consistently follow the results framework that had been set up in the PAD or PP. However, ISR monitoring was considered to provide sufficient information about achievement of outputs which informs achievement of outcomes.

2.4 Safeguard and Fiduciary Compliance

33. **Social.** The Project was social in character, particularly Improved Mobility and Urban Upgrading components. The former included the construction of bus ways and feeder routes for Transmilenio, requiring the implementation of a Social Management Program and a Resettlement Plan by IDU. Component 2 was directed towards the most vulnerable segments of the population in 14 UPZs, included the formulation of a Resettlement Policy Framework (RPF) for the District and other activities aimed at creating social capital in the selected UPZs. CVP was the institution in charge of coordinating the infrastructure works and social activities undertaken by IDU, EAAB, UAECD and DAPD in the UPZs. The resettlement process under Improved Mobility component involved 1,280 families and was completed in December 2004. Each resettlement action was adequately documented and all claims were addressed. In order to successfully implement this large operation, IDU put in place an experienced resettlement team that worked full-time between 2002 and 2004. Although the resettlement process officially concluded in 2004, the team continued to monitor specific vulnerable cases until project completion. It is worth noting that a request for inspection was received in October 2007 related to eight households affected by the construction of transport-related works in the area of *Avenida Suba*. Bank Management responded to the Inspection Panel on December 3, 2007. The Panel decided not to proceed with the investigation. IDU monitored closely the cases that prompted the investigation and completed and resolved these resettlement cases successfully. In turn, the Bank team redoubled its supervision efforts to facilitate resolution through IDU where applicable. With respect to urban upgrading, a RPF was prepared and disclosed under BUSP. A continuous multi-level stakeholder consultation strategy was prepared and executed. Social teams worked continuously in field offices in every UPZ - particularly with the Community Committees (*Juntas Administradoras Locales*) - to identify, select, plan and implement community projects. Public consultation and participation during subprojects design and construction were satisfactorily implemented. Social specialists accompanied the Bank's supervision missions.

34. **Environment.** Environmental Management Plans (EMPs) were implemented in a satisfactory manner throughout project implementation. Given the complexities and nature of the works under the Urban Mobility component, a full Environmental Impact Assessment (EIA) was carried out before the initiation of bidding process for the construction of segregated busways and feeder roads. The EIA included an assessment of the potential impacts associated to civil works. The EIA found that the Project would bring about positive environmental impacts, resulting from better air quality, better mobility, less exposure to contaminants (as with the new bus system passengers will spend less time on the road exposed to vehicle contamination) and improvements in safety and urban space. The EIA recognized some temporary, negative environmental impact and nuisances that were to result from the civil works such as noise, air pollution, construction waste, and potential impact on the nearby ecosystems. To mitigate such effects, the EIA defined EMPs to properly handle wastes, noise, movement of materials, water management, campgrounds, pedestrian safety, visual disturbance, equipment and machinery risks, access to housing and commerce, and industrial and occupational health. The design and content of the EMPs followed the guidelines utilized by IDU, which were developed under the advice of the Bank, and consistent with the Bank's Environmental and Social Safeguards. The contractors implemented the EMPs and their cost was reimbursed according to compliance with the EMP activities. This method of payment upon performance gave way to a better coordinated plan for environmental and social management of works, where a system of check lists was periodically reviewed by construction contractors, works supervisors, IDU, and the Bank environmental specialists. This led to reducing risks for neighboring houses and structures, pedestrian traffic and vehicles and workers. The proposed activities under the EMPs were satisfactorily implemented throughout project execution. Environmental specialists accompanied the supervision missions. Environmental and social management of works was satisfactory, and set a best practice standard that was later replicated for other urban transport projects in Colombia and elsewhere.

35. **Financial Management.** Financial management of the project was administered in accordance with the arrangements agreed upon in the loan agreements for the Parent Loan and the AF. For the Parent

Loan, disbursements were made under the Financial Management Reports (FMRs) mechanism (Quarterly progress). These financial management practices required the Bogota Comptroller's Office (*Contraloría Distrital*) to conduct special audits that entailed greater financial management effort from the PCU. For the AF Loan, a financial management scheme of reimbursable eligible expenses was agreed upon with the Bank in an effort to simplify audits and accounting. Financial management training and continued ad-hoc support was provided by the country office financial management specialist on an as needed basis. An External audit of the project was carried out on an annual basis, stating the adequacy of the accounting system and internal controls, and compliance with covenants of the Loan Agreement. It is important to mention that, although the external annual audits were carried out in accordance with international auditing standards, and the audit opinions were clean, there were some delays in achieving the agreed deadlines for submission of audit reports. During the implementation of the Parent Loan, there were also challenges in providing quarterly FMRs to the Bank that had to do with the need for the PCU to coordinate inputs from, and provide quality control and assurance to, six separate implementing agencies that had different accounting systems. The final external audit for the project is expected to be submitted to the Bank by March 31, 2015.

36. **Procurement**⁸. The procurement load was significant due to the number, diversity and technical complexity of the multiple processes. Nevertheless, its management by each implementing agency under the coordination of the PCU was satisfactory. During the period of 2003-2008, the procurement processes were carried out in a generally satisfactory manner, following Bank procedures albeit with a few shortcomings, such as lengthy consulting services processes and lengthy procurement bidding process for civil works. The Bank diagnosed these issues, which were promptly addressed, and then prepared an action plan in this area to reduce the bidding process periods at the SHD's request, including Bank's reduction of time to respond to NOs. After this, the performance of PCU's procurement team improved considerably and the elapsed time was shortened. A number of ex-post procurement reviews were conducted by the Bank during project implementation. The ex-post reports and the Supervision Mission Aide-Memories included recommendations that helped improve the management of procurement processes. Due to the engineering studies of the First Metro Line being one of the largest consulting services procurement processes ever supervised by the Bank, the process took more than the typical consulting services process in order to support the necessary due diligence to meet with Bank requirements and coordination among internal Bank divisions.

2.5 Post-completion Operation/Next Phase

37. **Transition arrangements to regular operations:** All subcomponents' activities are either implemented or, as for the metro studies, underway. The maintenance of urban mobility activities is managed by IDU, while operation of the modernized bus services is being managed by Transmilenio S.A. as part of its mandate to plan, operate (by private concessions) and regulate the Integrated Public Transport System (IPTS) and the BRT. In the case of the urban upgrading activities, maintenance is provided by the corresponding sectorial agencies. Institutional capacity improvements achieved with the support of the operation were capitalized by the District. It is worth highlighting that the environmental and social frameworks and practices were elevated to the city level and applied since in the preparation of infrastructure projects. The District also benefited from a rationalization of its existing cumbersome, multi-sectorial decision making process by streamlining the process for taking actions on policies and coordination by reducing the number of players and strengthening implementing agencies' coordination.

Sustaining reform and institutional capacity:

⁸ INT was informed of several potential cases that could merit investigation, but, after careful analysis, INT did not proceed with any full investigation.

38. Throughout the long life of this Project, there were several institutional reforms undertaken in the District. In the case of urban mobility, an important reform was conducted with the technical support of the Bank by which the STT was transformed into a more technically-capable and modern *Secretaría Distrital de Movilidad* (SDM) that expanded and reformulated its scope to modern concepts of mobility management and policy formulation as recommended in the Master Mobility Plan in coordination with the POT. The project also provided significant support to the institutional capacity strengthening of IDU with the support of multiple studies, design of processes and information generation that currently more effective, technically informed decision making for the District, including areas such as the bridge and road inventory, instruments to prioritize road works, etc.. These reforms have provided IDU with a level of technical information that is among the best in Latin America. Institutional reforms of the District's taxing capacity and capability as well as the modernization of its cadaster unit have provided a significant improvement to the city finances and better systems and administration to have sustainable institutional capacity of the responsible agencies. The Bogota Cadaster Unit, which currently has an updated, complete cadastral inventory of the city, is currently one of the most advanced of its kind in Latin America not only for its contributions to the support the city's land value taxes, but also because its cadaster is a modern multipurpose tool to inform the District's spatial and development policies and activities.

39. The activities included in the Urban Upgrading component were accomplished and the PMIB has been replicated in other cities in Colombia and in other countries (including Bank-supported interventions in Bolivia (La Paz) and other). While project activities were accomplished (and targets exceeded) and the PDO achieved, it became more difficult to ensure that the coordination necessary to effectively implement multi-sectorial interventions in specific UPZs was accomplished after 2006 when new administration priorities were directed towards programs for new housing construction.

40. **Follow-on Bank Support.** The prospect for the post-completion operation of the project activities remains strong as it pertains to urban mobility. The AF Loan financed the detailed engineering studies for Bogota's first Metro Line. There is a joint commitment of the District and the GoC to move forward with the Metro project financing and its implementation. The Bank continues to provide support with a PPIAF-funded TA to support the District with financial options for the metro study and has agreed with other development banks on a coordinated action plan to continue supporting the GoC and the District on areas that are of special importance for the project, including institutional development and capacity, project structuring, value engineering and other. The Bank is currently preparing other instruments to support the metro project structuring and general transportation planning and institutional development in Bogota.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

Rating: Substantial

41. The Project's PDO continued to be relevant for the strategic priorities that the Bank defined for its engagement in Colombia throughout the Parent Loan and the AF and did not require any changes in response to changing government priorities or external conditions. The Project was consistent with the CAS discussed by the Board in January 2003, which gave high priority to the promotion of competitiveness in the productive sector and to the improvement of high quality basic infrastructure services for the least privileged segments of the population. The AF supported the 2008-2012 and 2012-2016 CPS goals, and is aligned with the key themes of the GoC's 2010-14 National PD, stressing the importance of enhancing access to services in an environmentally sustainable manner as a way to foster inclusive growth and expand opportunities for shared prosperity and increased productivity. The Project was also aligned with the District's POT and PD as mentioned in section 2.1 above. The emphasis on favoring particularly the poor is totally aligned with the current Bank's twin goals of eliminating poverty and sharing prosperity. Project

amendments, including the AF and extensions of the closing date, reflected an appropriate level of flexibility by the Bank that allowed the completion of the Project.

42. Considering the multidisciplinary nature of the PDO, project design was on target regarding project component design. Given the proportional largest scope of mobility improvement activities, a specific component for urban mobility was created. The core activities of the PMIB were included in a second component for urban upgrading which would have to do with all the inherent multi-sectorial improvements in urban livability for UPZ that included transportation, sewage and water. Finally, given the special emphasis on inter-agency coordination in the PDO, a specific component was created for institutional strengthening that encompassed targeted interventions in the agencies that were involved in overall city planning and the UPZs, both in terms of capacity and capability building, but also to set up systems and processes for improved interagency coordination. The PAD identified the causal link between the outcome indicators and the PDO but this link was not sufficiently explained in the document and the results framework did not provide a methodology, baseline or target to link the project achievements to the outcomes.

3.2 Achievement of Project Development Objectives

43. The efficacy is rated Substantial based on the achievement of the PDO and the plausible causality as described below. The Project substantially delivered the outputs for the implementation of all activities and largely achieved the objectives set at appraisal based on the tangible impacts on the ground and improvements in urban living conditions, particularly to lower income residents. Outputs are directly linked to qualitative outcomes associated with improving the living conditions, benefiting more than 1.2 million. A summary of the results framework indicators and articulation between outputs, outcomes and inputs is included in Annex 2.

Objective: Improve the Borrower's urban living conditions by increasing access, coverage, quality, reliability, and inter-agency coordination in the provision of public transportation, sanitation services and potable water.

44. This objective was achieved, since living conditions for urban residents were improved with a multi-sectorial approach that allowed increasing coverage and access to its services in transportation, sanitation and potable water, especially for low income residents. Since the PDO is multi-dimensional by design, this ICR will provide a description of the achievements by disaggregating the analysis into achievements for transport services, achievements for water, sanitation and related services, and achievements in inter-agency coordination, respectively. This disaggregation is proposed as a response to the project's M&E approach during implementation and an undefined methodology to evaluate how the objective would be achieved in the PAD or PP. This approach to disaggregation is also consistent with the way in which the projects components were structured:

45. ***Improve the Borrower's urban living conditions by increasing access, coverage, quality, reliability of public transportation.*** Urban Mobility contributions provided improvements in urban living conditions of at least 1.2 million, mainly in low income UPZs, through improved access, coverage, quality, reliability of public transportation. The project provided improvements to urban mobility by building transport infrastructure and improving public transport services that decreased travel times and generalized transport costs, as follows:

Access.

- Increased access to public transportation for the benefited communities through 10.2 km of BRT trunk lines system along the Av. Suba corridor (target achieved) and 111 km of feeder

lines to the operation of the Transmilenio BRT system⁹ (target of 265 km partially achieved), 95 km of access roads within the area of influence of the BRT corridor and feeder lines (target achieved), and 15 km of bike lanes interconnected to main roads and BRT stations (target of 36 km partially achieved).

- In average during 2008, the Av. Suba BRT corridor reached approximately 294 thousand daily passengers (forecasts at time of PAD: 221 thousand).
- Along the Av. Suba BRT corridor, average travel speeds increased from 12.7 to 20.1 km/h. This allowed decreasing average passenger travel times from 48 min to 31 min, thus representing a 25% decrease in the travel time to access employment, education, health and economic and social opportunities (project target was 20%).
- The construction of feeder lines and bike lanes is especially valuable to low income population since it has provided significant accessibility to fast, reliable BRT services and mobility gains to population living in the low-income periphery of the city. The feeder lines feature operational, physical and fare integration to the trunk BRT system, allowing quick, accessible interchanges of bus services without requiring the purchase of an additional fare. The bike lanes feature segregated design from pedestrians and street vehicles, and feature well lit, signalized and properly connected alignment connecting to BRT stations which often have free or low cost bike storage.

In particular, bike trips have increased the modal share from total daily trips¹⁰ in Bogota from nearly 3% at time of appraisal to nearly 6% in 2014 (partly attributable to the project). Regarding demographics, data from the 2011 Bogota mobility survey indicates that nearly 80% of these bike trips are done by population of the three lowest socioeconomic groups, in a categorization of 6 income groups (locally denominated “social strata”).

- Improvements to urban space livability, by implementing 55 works to improve parks, pedestrian access (stairs, ramps, etc.) and pedestrian infrastructure, including lighting, signaling and painting in low-income areas with a participatory design process with the community.
- *Coverage, quality and reliability.*
 - The addition of Transmilenio services to the Av. Suba BRT trunk corridor and the 111 km of feeder lines provided modernized public transportation services to a catchment area that included 158 thousand and 1.22 million population respectively¹¹. The benefited communities now have integrated public transport options that provide significant better quality of service, access to the city-wide BRT network and reliability compared to the previous informal, unsafe, not integrated and unregulated paratransit services¹².
- In addition, the project conducted instrumental studies and actions that provided a robust framework for making informed decisions for urban mobility that will ultimately improve *access, coverage, quality and reliability* of public transport provision in the City, including:

⁹ Transmilenio currently has 410 km in total. TransMilenio is currently the backbone of urban mass transport in the city with a daily ridership of 2.3 million (750,000 passengers at time of Project Appraisal, exceeding the 1.66 million target for the end of the project)

¹⁰ Modal share represents total daily trips surveyed “Bogota Mobility Survey”, which considers trips done by private modes, public transport and non-motorized modes (walking and biking).

¹¹ While due to system effects, the new corridor benefits the whole city, the increase in coverage is considered for population directly in the catchment (500 meters buffer from stations).

¹² Benefits from different studies conducted after the implementation of Transmilenio in Bogota (see EMBARQ, 2009) show that the modernization of public transport provision vis-a-vis the previous model provide positive impacts including better air quality, improved road safety and reductions in crime.

- Mobility Master Plan for Bogota, which provided a detailed understanding of mobility patterns, evaluated policy and investment options and laid out the path forward that currently guides the District priorities in urban passenger and freight mobility.
- Design of the First Metro Line: A series of studies were advanced (some of them still underway) that provided alternatives for the design of the metro line and the reorganization of the mobility supply in the city. Studies include detailed engineering, social and environmental analyses and legal and financial structuring.
- Studies to support the design and implementation of the integrated public transport system, which implementation directly contributes to cost and time savings.
- Urban road design and safety studies including: road horizontal and vertical signaling; road safety strategies through the Mobility Observatory; road safety audits; design of and road accident investigation unit. These activities were complemented with road safety educational campaigns.

46. ***Improve the Borrower's urban living conditions by increasing access, coverage, quality and reliability of water, sanitation and related services.*** Urban Upgrading contributions through the PMIB provided significant improvements in access, coverage, quality, reliability of services in 14 low income UPZs. The PMIB exceeded most of the original targets and met all targets, and positively impacted the living conditions of a population of at least 620,000, beyond the original target of 600 thousand. The main outcomes are as follows:

- *Access.*
 - Increased access to water through 30,350 new water connections (193 % of the original project target).
 - Increased access to sanitation through 119,850 connections (143 % of the original project target).
- *Coverage, quality and reliability.*
 - The increased number of connections to water and sanitation services provided these families with formal water and sanitation coverage that provides greater quality of service and reliability standards consistent with the rest of the city. At the time of project preparation, water and sewage coverage reached 97 and 90% respectively (data from Water and Sanitation Company of Bogota), while as of 2007, the City of Bogotá managed to increase its water and sanitation coverage to 99% of the City.
 - The improvement in the direct living conditions of 1,995 housing units that were resettled away from high risk areas included improved reliability of water and sanitation services (122 % of the original project target).
- In addition, the project included other activities that supported the urban upgrading of low income-neighborhoods, and therefore assisted in the overall improvement of the urban living conditions and the water, sanitation and related services.
 - The Project built 55 public space small works improvements in 14 UPZs. Improvements included parks, pedestrian access (stairs, ramps, etc.) and pedestrian infrastructure with a participatory design process and direct hiring of the community. Benefits included urban space livability, increased sense of security due to improved lighting, and greater sense of ownership and demand for construction jobs.
 - 89 additional low-income neighborhoods (*barrios*) were legalized and 14 public information points were established, therefore providing improved legal status to residents and an increased voice and formal role in the city politics' community participation. This was complemented with assisting urban dwellers in urban upgrading areas (1,559 families were assisted, 146 % of the original project target) with 534 new residential titles (121 % of the original project target).

- Participatory development of EMPs for low income settlements/areas including Ciudad Bolivar, Altos de la Estancia, Quebrada La Hoya del Ramo and two hectares of degraded areas. The EMPs set the footprint for other subsequent city projects.

47. ***Improve the Borrower's urban living conditions by inter-agency coordination in the provision of public transportation, sanitation services and potable water.*** Institutional strengthening contributions improved the performance of institutions in delivering urban services through activities that improved the living conditions by enhancing social, environmental and financial sustainability of the District's programs. Contributions included the design and implementation of new institutional arrangements, policies, strategies and instruments, inter-institutional coordination improvements. These actions increased the city's budget financial sustainability and capacity to plan and undertake multi-sectorial programs, projects and reforms. They include by institution:

- CVP
 - Improved coordination of projects and public participation in decision making through the implementation of community meeting points.
 - Improved efficiency for the PMIB with the implementation of a monitoring system that supported inter-agency coordination.
- DAPD (*Secretaría Distrital de Planeación*)
 - Improved decision making through the development and implementation of the District's resettlement policy and support and development of urban competitiveness and integration studies.
- SHD (Parent Loan) and Cadaster Unit (after loan restructuring)
 - Improvement in institutional efficiency through the reform and enhancement (administrative and technical capacity and capability) of its tax collection unit and its cadaster unit, and the optimization of the process for property registration that involved several agencies.
 - Improvement in the spatially-based management of the city and strengthening of the District's finances and tax collection (particularly property tax) as a result of an upgrading of the District's cadastral information and the development of a multipurpose cadaster for spatial functions of multi-sectorial municipal governance.
 - As a consequence of these achievements, the number of registered properties in the cadaster has increased three fold to more than 2.3 million; the upgrading process for the cadaster inventory has been reduced from 5 to a less than 1 year lag, and has approximately duplicated the property tax income base for the city.
 - An updated aerial photography mapping of the city to support inter-agency planning and informed decision making.

48. The project improved system sustainability by strengthening the institutional and administrative framework for efficient delivery of services throughout the city and increased institutional capacity of agencies that provide urban services, therefore contributing to increased sustainability for the city's planning, decision making processes and finances, as follows:

- IDU
 - Institutional efficiency improvements through the implementation of a road network administrative system and information to support decision making for project prioritization through an inventory and diagnostic of Bogota's vehicle and pedestrian bridges, technical specifications, and erosion resistance tests for materials used as basis for hydraulic concrete pavement.
 - Development of an inventory and diagnostic of arterial road network system with state-of-the art technology and systems that will assist the city in optimizing the economic efficiency of maintenance improvements investments in its road network thus

contributing to improvements in urban mobility and city competitiveness through asset management.

- DAMA (*Secretaría Distrital de Ambiente*)
 - Improved city's environmental management through technical support to monitor mobile emission sources, modernization and enhancement of the city's environmental monitoring system and environmental awareness dissemination and education campaigns.

3.3 Efficiency

Rating: Substantial

49. As of 2008, SHD conducted an ex-post evaluation for 80% of the activities of the Parent Loan, which represented a representative sample of the Loan. The evaluation included an ex-post economic evaluation of the urban mobility activities associated with the implementation of the Av. Suba Transmilenio BRT, traffic management, feeder routes and non-motorized transport (methodology described in Annex 3). Results show a positive net present value of US\$ 21.14 million (2008 exchange rate for Colombian Pesos of 2006) with an EIRR of 14% and a benefit/cost ratio of 1.12¹³. Other positive impacts associated with the construction of the BRT corridor include reduced crime and homicides throughout the BRT system and areas with relative proximity to it; increased profits and business opportunities in commercial establishments, residences and land plots with relative proximity to stations and feeder routes of Transmilenio (Mendieta, 2007). The ex-post evaluation also conducted an incidence analysis of the population that would be directly benefited by the urban mobility works of the Project (within 500 meter buffer of project implementation), which demonstrated that more than 1.2 million people directly benefited from improved accessibility to transport services or improved infrastructure implemented by the project¹⁴. Finally, it is worth mentioning that thanks to the activities associated with the cadaster modernization, cadastral information update and the reform of the District's cadaster unit, the city's property tax income base more than doubled from US\$416 million in 2009 to \$901 million in 2013, therefore significantly contributing to the financial sustainability of the city and the return on investment for the project.

3.4 Justification of Overall Outcome Rating

Rating: Satisfactory

50. The overall outcome rating of Satisfactory is justified based on substantial efficacy, efficiency and relevance, and is supported by the following main achievements:

- The project remained highly relevant and is consistent with the current planning strategies of the District and the Bank's CPS.
- The project supported a significant institutional strengthening transformation of multiple entities of the District during project implementation, and especially for the urban upgrading component which required significant multi-sectorial decision making and coordination, institutional coordination reached unprecedented levels. The project also assisted in catalyzing

¹³ This EIRR is inferior to the 24.7% ex-ante estimate that was calculated in the economic analysis for the project preparation (with the caveat that the original methodology was conducted for a scenario with future full BRT system network implementation, which still has years to materialize and was not part of the scope of this Loan), but still shows a remarkable positive economic return on investment.

¹⁴ According to the implementing agencies, no additional ex-post economic evaluations were conducted on the Urban Upgrading component activities due to insufficient available reliable data for baseline and implemented project.

more streamlined district level decision making for policies and actions that required interagency coordination.

- Positive outcomes for all components in consistency with the PDO, benefiting above 1.2 million. Most project targets/indicators were met or exceeded with respect to those set up at appraisal and therefore, on balance, there is positive achievement.
- The project was prepared taking into consideration lessons learned from other Bank projects and capitalizing and enhancing the existing institutional capacity.
- Positive EIRR of the urban mobility investments.
- Continued support to Transmilenio both socially and politically in the form of increased system expansion and global regards as a groundbreaking and highly successful system.
- The project has contributed to inform the next generation of transformative solutions for the city mobility through its support to the design of the first metro line, its contributions to the IPTS and the asset management system, among other.
- Urban upgrading activities were implemented with tangible benefits to low income communities.
- Important contribution to the fiscal sustainability of the city supporting the outlook of the sustainability of investments.
- The project contributed to unprecedented improvements in institutional efficiency in several city agencies.
- Project has disbursed US\$ 123.93 million (95.3%), and with the exception of the metro studies which are still underway with local funding, the project is fully implemented¹⁵.

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

51. **Poverty Impact.** Supporting improvement in services to the low income was a particular focus of this Project. All components and activities directly or indirectly benefited the District's low income population but the Urban Upgrading component did actually explicitly target benefiting the low income communities. It is known that the urban upgrading program benefited 1.2 million urban dweller's living conditions by increasing access, coverage, quality, and reliability in the provision of public transportation, sanitation services and potable water, in addition to improving the legal status and reducing the vulnerability of informal settlements.

52. **Gender:** The Project's initial design did not incorporate gender-specific measures. However, the Project has had an impact in this area as BRT systems and urban upgraded neighborhoods provide safer environments for women. For example, features such as proper lighting and infrastructure (in the case of Transmilenio, including security cameras and restricted access to stations) have a positive impact on safety. Also, Transmilenio BRT buses incorporated preferential seating for pregnant women and areas for baby strollers. Systems also employ women as drivers, workshop technicians, project administrators and executives in a sector that had been historically predominantly reserved for men.

¹⁵ The remaining US\$ 6.06 million were not disbursed due to (i) Component 3 activities associated with LIDAR photography-based acquisition by UAECDC with local resources instead of Bank resources due to local delays; (ii) currency exchange rate fluctuations, which devaluated the COP against USD, which in terms of repayment meant that the same amount in COP that was meant to be spent represented less USD from the Loan. Finally, albeit SHD promoted actions to allow using the available Loan resources in full, budgetary programming constraints required the District to program additional payments to the consulting consortium of the Metro studies to be done in calendar year 2015, at a time in which the Bank Loan was closed and no further disbursements could be made.

53. **Social Development.** Under this theme, the social planning mechanism established for the Urban Upgrading component was successfully implemented. Census and baseline socio-economic studies were conducted and updated continuously to serve as inputs to the monitoring of social impacts and sectorial social analysis to achieve investment targets. The elaboration of local planning frameworks (*Fichas Normativas*) involved the participation of more than 5,200 community leaders and the evaluation of more than 8,200 proposals and were used as planning inputs into each UPZ, and for prioritizing interventions. PMIB social teams in each UPZ worked with citizen groups (*núcleos de participación ciudadana*) to build local capacity in project planning and implementation. The local planning frameworks also served as the basis for the generation of demand-driven subprojects, as well as in the development of the zoning plans (*Planes Zonales*), another input to subproject prioritizing.

(b) Institutional Change/Strengthening

54. The Project contributed to the District's institutional strengthening efforts by creating an unprecedented level of coordination, planning, reforms and investment execution among different District's core agencies such as IDU, STT, CVP, DAPD, DAMA and SHD, especially tangible during the implementation of the Urban Upgrading component, including a RPF.

55. In terms of the institutional environmental management strengthening, the project assisted IDU in mainstreaming environmental considerations in the construction of Transmilenio through the preparation of an EMF. This was a major accomplishment and contributed to elevating the relevance of environmental considerations in other line agencies of the District. This EMF was internalized by the District and was also replicated in other Bank projects in the Colombia. Environmental institutional strengthening was also accomplished through DAMA with the enhancement of monitoring of mobile emission sources, modernization and enhancement of the city's environmental monitoring system and environmental awareness dissemination and education campaigns. IDU also created an unprecedented bank of information (and the system to continue collecting it) and decision making-supporting systems for road asset management as well the capacity to determine road user costs for the implementation of the HDM-4 model.

56. The modernization of the Tax Management Unit was instrumental to improve the District's capacity and capability to sustainably increase its tax base. The Cadaster Unit of Bogota was also reformed with support from the Bank and has become a regional reference of good practice. The assistance to the cadastral surpassed all its targets. In the most critical area of updating and improving the city property tax system, the Unit achieved excellent results and put the property valuation updating on a sound long-term financial performance with strong positive fiscal results for the City, complemented with a multipurpose spatial data infrastructure for the District's decision-making.

(c) Other Unintended Outcomes and Impacts (positive or negative)

57. South-south knowledge exchange. The Transmilenio BRT system developed with Project support has served as example for other cities in developing countries that are implementing similar systems. Also, Colombia is becoming an exporter of consultants in the area of BRT development. These professionals are now working in the implementation of systems globally. The Transmilenio BRT project is also a flagship project that created the foundation for the National Urban Transport Program under which the National Government co-funded BRTs in six other metro areas in Colombia. There was also south-south exchange in the environmental and social management in the form of a tour of developing countries' officials that visited the projects to learn from the experience in this area.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

58. No specific beneficiary survey was conducted, mainly due to this document not being elaborated as Intensive Learning ICR. Nevertheless, for the purpose of identifying beneficiary perceptions on the project this ICR uses the "Bogota *Cómo Vamos*" citizen Survey (See Annex 5 for a complete analysis of the survey results). The survey is an evaluation tool based on public perception indicators designed for

different sectors across the City, which could be used as a proxy for the project given its city-wide scope. The survey reports perception indicators including public space and public service provision (electricity, water, sewage, etc.). The survey also includes a separate chapter focusing on mobility and a number of questions related to the perceived performance of public transport in general, and of the mass transit system. The survey has been carried out in Bogota continuously between 1998 and 2014. The following paragraphs summarize the evolution of citizen perception trends on public space, public service provision and mobility, particularly relevant to the objectives and components of the BUSP.

59. **Public Space:** the survey reports user satisfaction with public space, and asks specific questions on quality of street lighting; quality of parks and green areas; sidewalks and pedestrian paths; and overall city public space. Between 2004 and 2013, the survey measured total citizen perception on public space, including parks, streets, street lighting, sidewalks and paths. All indicators showed a positive trend between 2004 and 2007, with ratings averaging scores of 76, 70, 80 and 68%. **Public Service Provision:** The survey reports 100% coverage in water and sanitation in Bogota since 2009, in accordance with the access and coverage objectives supported by the BUSP. User satisfaction regarding provision of water and sanitation has experienced a positive increasing trend, rising from 58% in 2004 to 68% in 2008 (water) and from 60% in 2004 to 62% in 2008 (sewage). Satisfaction with city and neighborhood roads increased steadily. In 2003, on average 38% percent and 33% percent of survey respondents were satisfied with the quality of neighborhood and city roads, respectively. These percentages have increased to 41% and 30 percent in 2008-2009. **Public Transport and Mobility:** Satisfaction with travel times, cleanliness, safety and security of the Transmilenio mass transit system in Bogota showed a steady positive trend between 2003 and 2007. Ridership increased steadily year by year proving that the system is desirable, reliable and fast if compared with para-transit and private modes (along the most congested corridors).

4. Assessment of Risk to Development Outcome

Rating: Low

60. The rating is based on the following:

- The Project has achieved its PDO, expected outcomes and development impact and complied with all safeguard requirements, mainstreaming environmental and social sustainability as key factors in all the construction and rehabilitation investment components.
- The Project has benefited from strong District commitment, ownership and leadership of its core agencies in charge of the different components during project preparation and implementation.
- The strategic directive in the POTs, PMIB and the PD was consistent with the PDO to improve the quality of life of the urban population by increasing access, coverage, quality, reliability and inter-agency coordination in the provision of transport, water and related services for residents in low-income areas will continue and support project's sustainable development due to its long-term city vision and planning.
- The District is very interested in implementing the First Metro Line and in expanding Transmilenio BRT system and has involved the Bank and has agreed with the GoC on a common approach.
- Most of the institutional strengthening components were successfully designed and implemented. In some instances the District has staffed up but not decided yet how to maintain the budget and personnel involved. Of particular relevance is the IDU road asset management information system and updated road inventory, which, in order to remain relevant, needs to be updated periodically and still has some pending aspects for its full functionality such as its operational procedures and the commitment of funds for its updates and operation.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Moderately Satisfactory

61. The rating is based on the following:

- The BUSP benefited from studies, experiences, and lessons learned from previous projects. Discussions and consultations were conducted to incorporate the PD that focused: (i) on issues of affordable housing; (ii) the improvement of informal and marginalized settlements, (iii) improving public transport; and (iv) inter-agency coordination, contributed to define investment priorities and key action areas.
- A multi-sectorial task team with ample experience working in Colombia and experienced in the design of urban transport projects, urban upgrading, resettlement frameworks, EMFs, cadaster reforms and road asset management, helped design the Parent Loan and the AF.
- For preparation, several identification missions were conducted, comprising specialists in urban transport, economics, water, urban planning, financial management, social and environmental fields. Bank specialists in other sectors provided additional support. The Bank team provided strong technical guidance during, included an adequate level of expertise, and drew on extensive background analyses to provide advice to the District.
- The preparation of the census and socio-economic assessment of affected population through the Resettlement Action Plan that permitted those resettled or partially affected re-established their former standards of living and income levels.
- The project incorporated in its design the lessons and experience identified in previous urban transport and urban projects both in Colombia and globally.
- The project also set good practice standards for planning and implementation of urban roads that were later replicated in Colombia and in other Latin American countries.
- The project provided a well-documented analysis of alternative instruments that were considered and why was the original operation and the AF designed as such. The AF instrument met the Client's needs for a mechanism to rapidly and effectively be prepared and approved.
- The Bank effectively leveraged its capacity to convene decision makers to inform them about the relevance of the project and prioritize them in the administrations' agenda, thus favoring the relevance and visibility of the activities.

62. However, the project presented deficiencies in its M&E framework. While the PDO was only one, it was complex and not well defined qualitatively or quantitatively. The outcome indicators were neither specific enough nor measurable and baselines or methodologies were not provided in most cases. There was significant data-gathering work for project preparation as reflected in many output indicators provided but the linkage between the outputs, outcome indicators and PDOs was only assumed. As described before, while the AF restructuring partially addressed these challenges by simplifying and rationalizing the indicators, outcome indicators and a clearer explanation of their link with the PDO remained unaddressed.

(b) Quality of Supervision

Rating: Satisfactory

63. The Bank provided eleven years of generally satisfactory supervision support, coupled with continued technical assistance. The rating, in balance, is based on the following:

- The Bank provided constant support to implementing agencies in the development of the required capacity in the safeguards and fiduciary areas.
- In addition to the continued on-site local support, the Bank team carried out at least two, well-staffed, supervision missions per year, in which it directly met with officials at implementing agencies, providing technical advice and opening avenues for cross-fertilization and knowledge sharing among

these entities. Supervision missions would document issues where the Client would need to pay special attention and request action plans on an as needed basis. The Bank effectively responded to increased project support needs in highly demanding circumstances such as responding to the request for an inspection panel.

- The Bank team provided high-quality technical assistance, carried out multiple workshops and constantly visited implementing agencies to ensure adequate implementation. It also mobilized technical experts in different areas and leveraged funding from other sources (trust funds and grants) to support the implementation of the Project. In multiple instances, the Bank deployed international specialists (cadaster, social, road asset management, urban mobility, urban upgrading, etc.) to bring international knowledge to Bogota.
- The Bank provided a supplemental layer of support to inter-agency coordination through its convening power and the design of its supervision missions and trainings.
- Openness to using the project as an incubator of innovation in all components.
- However, the Bank, while aware of the limitations of the M&E framework, did not fully correct this issue. On another note, in exceptional circumstances, there were delays in the issuance of NOs of procurement processes.

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately Satisfactory

64. This rating reflects a balanced performance against a series of complex factors and events. The Bank helped implementing agencies in the adequate preparation and implementation of activities. Preparation and supervision activities performed by the task team were highly satisfactory in most of the Bank's team roles and responsibilities, where the Bank went an extra mile in its support to the implementing agencies in technical, social, environmental and fiduciary aspects through trainings continued supervision and assistance in correction action plans when needed. The Bank also actively addressed implementation problems thanks to a careful, versatile and proactive supervision. However, there was a shortcoming in the M&E design and supervision that was not fully resolved and that lowers the overall rating of the Bank Performance.

5.2 Borrower Performance

(a) Government Performance

Rating: Satisfactory

65. The performance of the City of Bogota was satisfactory. The team designated by the City to participate in Project preparation and appraisal worked in alignment with the City's DP. This allowed the Bank team to propose a set of components and objectives which responded to local priorities and allowed adequately enhancing the scope of activities contemplated in the DP. The supervision team generally demonstrated ownership and commitment to achieve project development objectives, ensuring that inter-coordination, among participating implementing agencies were conducted in an effective manner, and with levels of human and local counterpart resources that were adequate throughout project implementation. This helped ensure project outcomes and institutional strengthening. Bogota's monitoring of the project and involvement during project implementation was conducted with high level city officials, with occasional participation of the Mayor in supervision missions. This meant that generally implementing agencies and participating entities were coordinated and reported on a regular basis project advance and any issues that were in general tackled in a coordinated manner.

(b) Implementing Agency or Agencies Performance

Rating: Moderately Satisfactory

66. SHD provided constant coordination and oversight from the outset and ensured the active participation of the City's implementing agencies involved in the BUSP. SHD conducted a critical role in providing a complex, but effective, coordination of actions among IDU, SDA (former DAMA), SDP

(former DAPD), CVP, SDM (former STT), SHD (PCU), technical advisory services and project's administration, financial and procurement guidance as well as support to achieve outcomes and results on the ground in both the Parent Loan and the AF. An example is the operational procedures for the Loan that SHD developed for all implementing agencies in the early stages of the operation that helped harmonize the input and actions conducted. The environmental and social management of project works was satisfactory and considered exemplary- to the extent that the practices were replicated and internalized in by other city agencies as city-wide policies beyond the scope of this project.

67. SHD was also in charge of overall M&E for the loan and for the AF and for collecting the appropriate data to follow the indicators with each agency involved in the operation. It is worth noting that all of these implementing agencies generally complied with output indicators established for measuring project development objectives agreed during preparation. However, there were minor shortcomings in submitting bank reporting deliverables on time and in not coordinating with the Bank in resolving the M&E framework in a timely and effective manner despite the Bank's indication of the importance to revisit the framework. It is worth noting that no ex-post economic impact evaluation was conducted for the urban upgrading component.

(c) Justification of Rating for Overall Borrower Performance

Rating: Satisfactory

68. Borrower performance is overall satisfactory. The City of Bogota, particularly SHD, participated actively in the preparation and supervision of the BUSP, and facilitated and coordinated investments actions with responsible agencies in carrying out the investment components. Moreover, it closely followed the implementation of the institutional strengthening component, reported to the Bank on progress and helped to prepare the AF. Despite a delay in project completion and other minor implementation challenges, the project remained relevant through implementation all outputs were delivered (some of them above the targets) and outcomes were achieved.

6. Lessons Learned

69. **A successful comprehensive urban transport project goes beyond the implementation of infrastructure.** In the case of Transmilenio, the project contemplated the construction of the *Av. Suba* BRT corridor, feeder routes, bike lanes and complementary local roads. Additionally, the project required a careful structuring of bus operating concessions, which would replace the existing para-transit routes. This process required legal, institutional and technical aspects to be considered to allow initiating a structuring and bidding process for bus concessions to mobilize an estimated ridership of 230,000 while negotiating compensation, regulation and enforcement policies to allow a fair and adequate dismount of para-transit services. The program also included a scrapping subprogram for old bus units and provided support to bus owners and operators who were not able to incorporate to the new bus concessions. The implementation of this multi-faceted component transport project requires a project manager capable of directing the implementation of a project that includes aspects related to infrastructure engineering, bus operations contracting, negotiation, compensation and regulation of the infrastructure construction, bus operator contracting and phasing out of paratransit.

70. **Multi-sectorial comprehensive interventions such as the PMIB provide greater benefits to communities than isolated sectorial interventions.** Part of the benefits have to do with the instruments and policies that constitute the foundations of these holistic programs which include detailed community participatory planning, ex-ante economic evaluations, prioritization of interventions based on technical and economic considerations and economies of scale with several sectorial implemented agencies working in a coordinated fashion. Furthermore, urban upgrading such as the PMIB, if well implemented, has significant pro-poor impacts given the fact that they are typically targeted for low income and vulnerable communities.

71. **Carrying out public consultations and participatory planning is an ingredient for community ownership and, therefore, sustainability of the investments.** During implementation of the urban upgrading activities, a key factor for project implementation success was the degree of public consultation and participation. The *Juntas Administradoras Locales* proved to be a most useful tool in reaching out to affected households, helping them get involved in community projects and thus increasing their participation in the decision-making process for designing and prioritizing solutions that were better tailored to the actual needs and expectations of the communities. Activities that are context-sensitive have a greater degree of ownership and thus are prone to be more sustainable.

72. **However, PMIB-like program's sustainability is fragile and requires continued political support.** The example of the PMIB illustrates that, as priorities vary across political administrations, so do the priorities of sectorial implementing agencies and their willingness to work in a coordinated fashion and allocate their best staff and the necessary resources to the program. PMIB-like programs, due to their complexity and multi-sectoriality, require a significant level of coordination among sectorial implementing agencies and direct support from the top City decision makers. Otherwise, despite its positive impacts, the program may eventually fail to capture the merits of its impacts and, ultimately, lose political momentum.

73. **Importance of committed local coordinating agency champion.** In projects with multiple implementing agencies, ensuring that inter-institutional coordination efforts are sustained is essential. An entity with adequate capacity to take a leading role in overseeing these efforts is instrumental for project success, particularly as participating entities undergo an initial learning process and define their new roles and functions within inter-agencies working staff and as the agencies learn to work with Bank's safeguard and fiduciary policies and processes. SHD assumed this coordinating role by developing the operational procedures, harmonizing processes and procedures with all implementing agencies and providing support and training to the implementing agencies on an as needed basis. In the Urban Upgrading component, CVP assumed the technical leadership and, while the political support lasted, it was successful in advancing the PMIB program in a highly complex coordination-needed implementation process.

74. **Large programs with multiple implementing agencies and agencies that have small subcomponents without Bank financing should be avoided.** The project pursued a holistic approach to improving living conditions in communities by coordinating multi-sectorial interventions. There were six different implementing agencies under the project coordination of the SHD and, in the case of the urban upgrading component, the technical coordination of the CVP. Activities for a specific implementing agency, in some instances, were small in size (compared to the overall loan or the implementing agencies' budget) and only funded with local counterpart budget but still entailed Bank reporting and procedural requirements. This approach places a burden in, often already capacity-limited, implementing agencies which may not have the incentives to report with timeliness and quality. While in projects with multiple implementing agencies working with a single coordinating unit may be very positive to facilitate inter-agency coordination and process harmonization, projects with multiple implementing agencies can increase their efficiency by avoiding implementing agencies with small subcomponents that were solely funded by local counterpart.

75. **Importance of having an experienced resettlement team will support project implementation through mitigating social risks.** To have an experienced resettlement team was one of the most valuable lessons learned from the implementation of a large resettlement under the Improved Mobility component. For example, in meeting the demands of the Inspection Panel request case, the IDU social team demonstrated the value of meticulously documenting the consultation and participation processes from the start-up of the project. The team monitored the all the resettlement cases until satisfactory completion.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

76. The Borrower reviewed the Bank's Draft ICR and only one substantial comment was made. The Borrower indicated that the target for intermediate outcome indicators A2. (Construction 265 km of Transmilenio Feeder Lines) and A.3. (Construction of 36 km of bikeways) should have been 111 km for A.2. and 15 km for A.3. Due to ICR drafting methodological requirements, indicators can only be modified through a formal restructuring. While the District and the Bank may have worked against the 111km and 15 km targets, the formal targets were not changed and while the actual targets on the ground were achieved, the loan targets for these two indicators cannot be reported as fully met. This inadvertent over reporting is mentioned in the core ICR and it is not considered for achievement of outcomes purposes.

(b) Cofinanciers and (c) Other partners and stakeholders

n.a.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Components	(1) Original Component Appraisal Estimate (USD millions)	(2) Additional Financing Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Component A: Improved Mobility	60.4	16.1	74.2	92%
Component B: Urban Upgrading	28.0	0	28	100%
Component C: Institutional Strengthening	10.6	13.9	20.8	100%
Total Baseline Cost	99.00	30.00	122.93	94.6%
Physical Contingencies	0.00	0.00	0.00	
Price Contingencies	0.00	0.00	0.00	
Total Project Costs	99.0	30.0	122.93	94.6%
Front-end fee PPF	0.00	0.00	.00	
Front-end fee IBRD	1.00	0.00	1.00	100%
Total Financing Required	100.0	30.00	123.93	95.3%

(1) Based on estimates contained in the Parent Loan PAD: Annex 1

(2) Based on updated estimates contained in PAD for First Additional Finance Loan (Page 9)

(3) Based on latest project budget (as of September 30, 2014), as provided by SHD in the latest financial monitoring report, and calculated using average exchange rate for the Project period of 2,059.4 COP/USD.

(b) Financing

Source of Funds	Type of Co-financing	Original Component Appraisal Estimate (USD millions)	Additional Financing Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		172.67	32.6	205.27	100%
International Bank for Reconstruction and Development		100.0	30.0	123.93	95.3%

Annex 2. Outputs by Component

Progress in outcome indicators can be directly traced back to the output indicators for the Project, mainly related to the delivery of soft activities (executed studies, legalized barrios, systems, etc.) for all components and hard infrastructure works (physical works, km of feeder routes, utility connections, etc.) required to improve mobility or to conduct urban upgrading. Finally, the Project provided the inputs in the form of the financing of civil works and technical assistance activities.

The tables below depict the outputs accomplished by component which, in most cases were either achieved or surpassed with respect to the original baseline. Activities were either fully or partially funded by the Loan and AF. The rightmost column of the table relates the accomplishments of each output indicator to the 5 Outcome Indicators of the project, linking the achieved outputs with the achievement of the Outcome Indicators.

For the purpose of reporting outputs by component, this ICR uses the outcome/output indicators identified after the project was restructured through an Additional Financing in 2008. This revised set of indicators was agreed upon the Implementing Agencies and the Bank to have a more relevant and measurable set of outcomes. This set of indicators provided an improved results chain logic between the outputs and the PDO.

SUBCOMPONENT	IMPLEMENTING AGENCY	OUTPUT	BASE LINE	TARGET	ACHIEVEMENT	Contribution to Outcome Indicators*
Component A. Improved Mobility						
A.1. Construction of busways	IDU	Construction of physical works in Troncal Avenida Suba (% of completion)	0%	100%	100%	I1; I3; I5
A.2 construction of feeder routes	IDU	Construction of 265 km Transmilenio feeder routes ¹⁶	0%	100%	42% ¹⁷	I1; I2; I3
A.3. Non-motorized transport	IDU	Construction of 36 km of bikeways ¹⁸	0%	100%	42%	I1; I3; I5
A.4 Transit and transport	SDM/ IDU	Design of an Integrated Mass Transport System and Mobility Master Plan (study)	N.A	Study Completed	Study Completed	I1; I2; I4; I5
A5.Integrated mass transport system	IDU	Assessment of alternatives for the implementation of Bogota's integrated mass transport system(study)	N.A	Study Completed	Study Completed	I5

¹⁶ T The 265km was the target set out in the Parent Loan Agreement. The target for this indicator was inadvertently reported as 338 km in the PP results framework. On the other hand, the District worked against a target of 111 km of feeder routes which was met.

¹⁷ See footnote above.

¹⁸ The target for this indicator was revised with the AF but inadvertently reported as 36 km during project preparation. The actual target that the District worked against was 15 km of bikeways and was met.

SUBCOMPONENT	IMPLEMENTING AGENCY	OUTPUT	BASE LINE	TARGET	ACHIEVEMENT	Contribution to Outcome Indicators*
		Detailed engineering design for Bogota's First Metro Line (study)	N.A	Study Completed	Study underway	15
		Legal Structuring of Bogota's First Metro Line (study)	N.A	Study Completed	Study underway	15
		Financial Structuring of Bogota's First Metro Line (study)	N.A	Study Completed	Study underway	15
		Social Assessment for Bogota's First Metro Line (study)	N.A	Study Completed	Study underway	15
		Environmental Assessment for Bogota's First Metro Line (study)	N.A	Study Completed	Study Completed	15
Component B. Urban Upgrading						
B.1 Planning and legalizing of Barrios	SDP	Number of legalized barrios	66	89	89	I1; I2; I4; I5
B.2 Water and sewage improvement	EAB	Number of new water connections	0	15.670	30.350	I1; I2; I4; I5
		Number of new sewage connections	0	83.220	119.850	I1; I2; I5
B.3 Access roads	IDU	Construction of 95 km of local road networks (% of completion)	0	100%	126%	I1; I3; I5
B.4 Resettlement	CVP	Number of families resettled in high risk zones	0	1641	1995	I1; I4; I5
B.5 Public space	CVP	Number of public works with community participation	0	50	55	I1; I2; I4; I5
B.6 Environment	SDA	Number of environmental mitigation plans	0	2	2	I1; I5
B.7 Housing improvements	CVP	Technical assistance to families in urban upgrading zones (No. of attended families)	0	1.066	1559	I1; I2; I4; I5
		Finalize 440 land titles	0	440	534	I1; I2; I4
Component C. Institutional Strengthening						
C.2. Technical Assistance to CVP	CVP	Implementation of a monitoring system for the PMIB	N.A.	Study Completed	Study Completed	I2; I4; I5
C.3. Technical assistance to DAMA	DAMA	Implementation of the City's Clean Air Strategy	N.A.	Study Completed	Study Completed	I1; I2; I4; I5
C.4. Technical Assistance to DAPD	DAPD	Formulation of strategic directives for the District's Resettlement Policy	N.A.	Study Completed	Study Completed	I1; I2; I4; I5
		Support and development of studies on Urban Competitiveness	N.A.	Study Completed	Study Completed	I1; I2; I4; I5
		Support and development of regional integration studies	N.A.	Study Completed	Study Completed	I1; I2; I4; I5
C.5. Technical assistance to SHD	SHD (and UAECED)	Studies to improve fiscal management and tax collection	N.A.	Study Completed	Study Completed	I1; I2; I4; I5
		Reform to the Cadaster's institutional architecture	N.A.	Study Completed	Study Completed	I1; I2; I4; I5

SUBCOMPONENT	IMPLEMENTING AGENCY	OUTPUT	BASE LINE	TARGET	ACHIEVEMENT	Contribution to Outcome Indicators*
	where applicable)	Upgrading of 3 cadastral processes (updating, upgrading and cartography) to meet international standards	0	3	3	I1: I2; I4; I5
		Updated properties with cadastral information incorporated to the Cadaster's new database (integration of graphic and alphanumeric information) system(no. properties)	N.A.	2,000,000	2,393,649	I1: I2; I4; I5
		Integrated real-estate information repository (PPP)	N.A.	1	1	I1: I2; I4; I5
		Design and implementation of spatial data infrastructure for Bogota	N.A.	1	1	I1: I2; I4; I5
C.1. Technical Assistance to IDU	(IDU)	Implementation of administrative System	-	Study Completed	Study Completed	I1: I2; I4; I5
		Inventory and diagnostic of arterial road network system(% of total road network)	30%	60%	60%	I1: I2; I3; I4; I5
		Inventory and diagnostic of Bogota's vehicle and pedestrian bridges under Phase II	340	540	739	I1: I2; I3; I4; I5
		Technical Specifications – TE 2005.	0	51	52	I1: I2; I3; I4; I5
		Erosion Resistance Tests for Materials Used as Basis for Hydraulic Concrete Pavement	N.A.	20	114	I1: I2; I4

Sources: Ex-post evaluation of BUSP (2008), PP AF (2008), Project Monitoring Documents and ISRs (updated as of October 2014)

*** Legend for Outcome Indicators in Table:**

- I1: Improved quality of Life: Improvements in quality of life were achieved through increases in access, coverage, quality, and reliability in the provision of public transportation, sanitation services and potable water to a population greater than original targets. The project implemented public transportation improvements that benefited 1.2 million, and contributed to universal access to water and sanitation by providing nearly 100,000 residents with access to water and nearly 380,000 residents with access to sanitation, according to average household size in selected Bogota.
- I2: Improved inter-agency coordination: Improved interagency coordination for the delivery of public transportation, sanitation services and potable water was achieved through activities that included the design and implementation of new institutional arrangements, policies, strategies and instruments, and inter-institutional coordination improvements. These actions increased the city's budget financial sustainability (i.e. the city tax base was doubled) and capacity to plan and undertake multi-sectorial programs such as the PMB where SHD and CVP provided improved interagency coordination needed for program delivery.
- I3: Decrease in travel time and costs: Improvements in transport infrastructure (including BRT trunk and feeder lines, access roads and bike lanes) improved urban living conditions of more than 1.2 million by providing decreases in travel time and costs. Travel time for the Av. Suba BRT corridor decreased by 25% (project target was 20%). Feeder lines provided modernized public transport services integrated with the BRT trunk lines with an integrated fare that eliminates transfer fare costs. Bike lane usage is a free transport option, and has contributed to an increase in bike modal share reaching 4% of total daily trips in 2008 according to mobility surveys.

- I4: Improved administrative, operational, and planning capabilities of the participating institutions: The project improved administrative, operational, and planning capabilities of agencies that manage urban services including SHD, CVP, STT, DAPD, IDU and DAMA. This contributed to strengthening the institutional and administrative framework for efficient delivery of services throughout the city and increased sustainability for the city's planning, decision making processes and finances.
- I5: Improved ability to manage supply and demand in the sector: The project contributed to an improved decision making framework to manage supply and demand in the public transportation, sanitation and potable water sectors through the development of policy and planning studies (including urban competitiveness and integration, a master mobility plan, etc.) and instruments (multi-purpose cadaster, environmental monitoring system, etc.) that informed sectorial priorities decision making for the District. This was coupled with the increase in the District's budget associated with the reform of the taxing and cadaster units and processes that led to doubling the tax base and, ultimately, the District's ability to manage the sectorial needs.

Annex 3. Economic and Financial Analysis

In July, 2008 SHD completed an ex-post evaluation for 80% of the activities of the Parent Loan. The evaluation included an ex-post economic evaluation of the urban mobility activities associated with the implementation of the Av. Suba Transmilenio BRT, traffic management, feeder routes and non-motorized transport. This annex discusses the results of the BUSP project as evaluated by the District. The evaluation consists of an ex-post economic evaluation for Components A, and an incidence analysis of selected subprojects of Components A and B of the BUSP¹⁹. The ex-post report is divided in two main sections: (1) a cost benefit evaluation, mainly done to the BRT Suba Corridor subcomponent in Project Component A - improved mobility; and (2) an incidence analysis of the population that benefited by specific subprojects encompassed by selected subprojects in Project Components A and B. The economic and financial analysis section is based on the ex-post economic evaluations hired by SHD to an independent consulting consortium²⁰. The ex-post evaluation was completed as activities financed by the Parent Loan achieved their outputs, and before the AF was signed. The following paragraphs summarize key information related to the subprojects encompassed by the ex-post evaluation referenced in this Annex.

1. Expost Economic Analysis: Components Studied

The following paragraphs summarize key information related to the subprojects encompassed by the ex-post evaluation referenced in this Annex.

• Component A: Improved Mobility

Through this component, the Project aimed to expand the coverage of the Transmilenio system in terms of trunk and feeder services, improve network connectivity of bike paths in order to increase their demand, define policies and strategies reduce road accidents, strengthening control and traffic management. The subcomponents evaluated in the ex-post evaluation are:

- **A1-Trunks:** This subcomponent included alignment with the Transmilenio system Trunk Suba Avenue with a length of about 10.2 Km This work included the construction of a dedicated lane for the Transmilenio system, rehabilitation of mixed roads, overpasses, stations, pedestrian bridges, and workshops for the fleet, sidewalks, planting trees, urban furniture and other works of public space associated. The works were fully executed counterpart resources and had as objectives to improve the speed of operation of the system, reduce access times, accidents, emissions and noise. It is important to note that access to the system from the surrounding neighborhoods in the Suba district was supported by subcomponent A2 – Feeder routes.
- **A4-Traffic Management:** This subcomponent sought to design and implement educational programs on road safety education and accident prevention strategies for the reorganization, restructuring and reducing the oversupply of public transport and policies to manage the increasing traffic congestion of the city.

¹⁹ According to the implementing agencies, no additional ex-post economic evaluations were conducted on the Urban Upgrading component activities due to insufficient available reliable data.

²⁰ The consultant consortium was composed of the Mexican firm Cal & Mayor & Asociados and the Colombian Consultora Duarte Gutermann.

2. Population Incidence Analysis

• **Component A: Improved Mobility**

- **A2-Feeder Routes:** The implementation of this subcomponent sought ways to integrate local roads to the Transmilenio system, allowing access to residents of lower income neighborhoods. The project included construction, rehabilitation and maintenance of roads for feeder routes in different influence areas (basins) of the Transmilenio system.
- **A3-Non Motorized Transport:** This subcomponent sought to ensure connectivity and security of the network of bike paths. Additionally communication strategies and a promotional plan to increase the demand of bike paths as an alternative means of transport were defined.

• **Component B: Urban Upgrading**

The components included in the incidence analysis are described:

- **B3-Access to Neighborhoods:** local road corridors were intervened with the objective of allowing local population access to transit (Transmilenio and / or routes of Public Transport). The sub-component hired consultancies for design and supervision and contracted the works for construction and rehabilitation of local roads, improving accessibility to transportation and city services in the 14 prioritized UPZs. Local mobility corridors were complemented by works of public space, urban furniture and landscaping.
- **B5-Public Space and Equipment:** Executed with loan and counterpart funds, this subcomponent undertook the construction of small public space in prioritized UPZs and where participation and recruitment occurred direct from the community who benefited from their implementation.

3. Other Subcomponents in Component B not included in Cost Benefit Evaluation or Scope of Incidence Analysis:

The results of the following subcomponents were not taken into consideration in the expost evaluation report elaborated in 2008 and hence appear to the ICR team as shortcomings to the expost evaluation of the BUSP:

- **B1-Planning and Legalization:** The objectives of the subcomponent sought to design the urban structure and design guidelines for the 14 Planning Zones (UPZs) prioritized by the program, also advancing with the legalization of some irregular neighborhoods in these UPZs.
- **B2-Water and Sanitation:** This subcomponent was developed by the Water and Sewerage Company of Bogotá - EAAB through the implementation of civil works, financed by counterpart funds. The goals set focused on the construction of approximately 15,600 connections aqueduct, 83,200 domestic sewerage connections and 116,900 km of local networks in UPZs.
- **B4-Resettlement:** This sub-component was executed by the CVP with own resources and under the Colombian procurement laws. The objective population of this program was 1,995 families who were located in the UPZs prioritized as high-risk areas without mitigation options subject to threats landslides and soil removal. The resettlement program includes technical assistance, personalized attention and payment for housing and land to relocate families in replacement housing alternatives.

- B6-Environment: This sub-component implemented by District Secretariat of Environment - SDA), implemented two environmental restoration plans in vulnerable areas of the main ecological structure in priority UPZs and environmental rehabilitation works in degraded areas.
- B7-Housing Improvements: This program sought to structure, finance and undertake a set of works and technical assistance aimed at allowing adjusting structural, architectural and functional conditions of residential pots belonging to vulnerable population within the prioritized UPZs. The subcomponent also included advisory services to land tenants to allow land titling processes.

a. Methodology

The methodology used for the ex-post evaluations is based on the standard World Bank’s cost benefit methodology used to appraise and evaluate infrastructure projects. This ensures that the results are consistent with the ex-ante analysis carried out as part of appraisal. An explanation on costs and benefits included in the evaluations is explained on the following paragraphs.

Costs

The costs the methodology associates with an urban infrastructure project fall into two categories: (i) one-time investments, particularly in infrastructure development, purchase of equipment and rolling stock; and (ii) recurring annual costs of the project’s operation and maintenance. In addition, there are one-time losses in time due to construction works which are not considered in the evaluation. The following table summarizes the evaluated costs for each Project Component.

Table 2 – ex-post costs for each evaluation

Project Costs	Considered?
Time losses during construction	<input type="radio"/>
One time Investments	
Studies: feasibility, engineering, traffic management, design, operation	<input checked="" type="radio"/>
Infrastructure rehabilitation and construction costs, including project management costs	<input checked="" type="radio"/>
Financial Costs	<input type="radio"/>
Land purchase and resettlement costs	<input checked="" type="radio"/>
Demolition costs	<input checked="" type="radio"/>
Bus fleet purchase and old bus scrapping	<input checked="" type="radio"/>
Fare-collectoin systems	<input checked="" type="radio"/>
Recurring annual costs	
Infrastructure Maintenance Costs (Improved Mobility Component)	<input checked="" type="radio"/>
Infrastructure Maintenance Costs (Urban Upgrading Component)	<input type="radio"/>
Fleet Maintenance Costs	<input type="radio"/>
Operation and Fare Collection costs	<input checked="" type="radio"/>

Source: own with information from Hacienda

One time investments: As shown above, the evaluation does not explicitly calculate the financial costs of the projects, although it does differentiate public investments from private investments, which mainly apply to rolling stock and fare collection for the Transmilenio subproject. The lack of information on financial costs suggests that the study has incorporated the financial costs directly in other investment components.

Recurring annual costs: The evaluation focuses on recurring costs for the Transmilenio system, presenting specific yearly values for operational and maintenance costs of infrastructure and bus fleet and fare collection system. It is not clear, however, if fleet maintenance costs are calculated. Other costs associated to the operation of the Transmilenio system (agency staff) are not calculated. Equally, no recurring annual

costs are calculated for the maintenance of infrastructure constructed within the Urban Upgrading Component.

Benefits: Component A -Improved Mobility. The evaluated benefits are encompassed by the four main categories of the standard World Bank cost benefit methodology: (i) time savings of transit users; (ii) savings in operating costs for the replacement of buses; (iii) accident reduction; and (iv) pollution/emission reductions, including savings occurred from modal shift (from private cars to mass transit). The ex-post cost-benefit analysis compares the incremental costs and benefits of a with-project scenario to a without-project scenario that does not assume any additional infrastructure investments and maintains the original level of service. The comparison assumes in both scenarios an increase in demand due to the population growth and the passenger demand for travel in the corridors of the cities studied. As it will be shown over this Annex, the benefits of the Suba Transmilenio BRT subproject come mainly from savings in commuting time and optimization of bus operation. The following table summarizes the benefits calculated in the evaluation of the BRT subproject. The dotted lines define the benefits included in the standard World Bank CBA analysis.

Table 3 – ex-post benefits for the BRT evaluation

Project Benefits	Considered?
Savings in Public Transport Fleet Operating costs	●
Savings in travel times for project users	●
Savings (reductions) in GHG and/or local pollutant emissions	●
Savings (reductions) in road accidents (fatal and non-fatal)	●
Savings in Travel times for car users	○
Savings in deaths due to illnesses related to air quality	○
Savings in medical care due to air quality-related illnesses	○
Savings in dead and wounded due to improved security around project	○
Savings in property loss due to improved security	○
Increase in residential Land Value	○

Source: own with information from Hacienda

As Table 3 illustrates, the evaluation is calculates only the World Bank methodology benefits. Other benefits, included in the table, have been calculated in other cases in Colombia where BRT projects have been financed with World Bank support. It is also worth noting that the evaluation presented by the consortium calculated savings in road accidents (dubbed as road safety) separately from other benefits (operating costs, travel times, GHG and local pollutants). The reason for this separate calculation is not clear besides the benefits only being calculated from existing data between 2003 and 2006, without estimations for the 20-year period that the expost analysis encompasses. This particularity does not allow calculating generalized cost/benefit results, including NPV and IRR which add the four main benefits included in World Bank standard methodology. Given this particularity, it is possible to state that the cost benefit analysis underestimates the benefits related to reduction in road safety related accidents.

Common considerations in the calculation of costs and benefits

The with-project scenario includes the effects of both the trunk lines and the feeder lines. The analysis includes the assessment of the operating costs for both services where the trunk network uses new high-capacity buses and the feeder routes are served by new regular buses. The savings in travel time for project users assumes the same number of passengers with or without the project and an average value of travel time for urban transport users, based on the information obtained from stated preference surveys conducted in Bogota. Benefits from reductions in accidents and pollutants are calculated based on accident records and emission models which take into consideration the reduction of bus fleet and transport oversupply, as well as the incorporation of more efficient combustion technologies in the new fleet.

Benefits: Component B -Urban Upgrading: the ex-post evaluation for this component is limited in terms of undertaking an economic evaluation as done for Component A. Instead, the consulting consortium conducted an incidence analysis of the population that benefited by specific subproject activities .

The evaluation does a detailed work in estimating the number of persons benefited by the urban upgrading program in the prioritized UPZs, and differentiates by socioeconomic strata, hence allowing differentiation of beneficiaries by socioeconomic level and income level. Since the socioeconomic results of the urban upgrading program are not measured following a standard methodology which quantifies benefits in terms of, for example, increase in land value, reduction of illnesses related to poor environment quality, included water and sanitation; or increased access to jobs and education, the consultants did not estimate the economic benefits of this component.

The incidence analysis leveraged on a considerable amount of georeferenced information that the consultants gathered in order to map detailed household information by UPZ along influence areas of projects and works undertaken by Component B as described above. This geographical analysis required the consultants to plot in a map the areas where of Feeder Routes, Bike Lanes (defined as non-motorized transport above), local roads (access to neighborhoods) and public space subprojects were undertaken, and proceed with an analysis of maximum influence of these projects in order to obtain influence areas (buffer circles) in which residents reported benefits from the BUSP-financed projects. To estimate the impact (incidence) of the selected subprojects in the city population, an estimate of number of households and household size was crossed with the buffer areas of the projects where citizens reported benefits after their construction. This analysis led to an estimation of nearly 1.2 million residents to be benefit by one or more of the subprojects from components A and B as described above.

b. Summary Results

For the purpose of the analysis included in this ICR, an exercise of comparison of costs and benefits of subprojects was undertaken. Costs and benefits were taken from the ex-post evaluations in COP and converted to current USD. The following paragraphs summarize the total costs and benefits found in the ex-post evaluation as well as key indicators: Net Present Value –NPV-, Economic Rate of Return –ERR- and Cost-Benefit Ratio –CBR.

a. Summary of Benefits and Costs

Costs

Costs were aggregated into the categories included in the methodology as shown in Table 4. The following table includes all economic costs for the Suba BRT Trunk Corridor.

Table 4 – ex-post costs for Transmilenio Suba corridor subproject

Project Costs (Economic Prices, 2006)	Cost, USD 2006 million	Cost, COP 2006 million
Time losses during construction	\$ -	\$ -
One time Investments		
Studies: feasibility, engineering, traffic management, design, operation, technical auditing (interventoría)	\$ 19.15	\$ 45,191
Trunk Infrastructure rehabilitation and construction costs, including project management costs	\$ 66.39	\$ 156,703
Feeder infrastructure rehabilitation and construction costs	\$ 2.85	\$ 6,719

Financial Costs	\$	-	\$	-
Land purchase and resettlement costs	\$	48.65	\$	114,828
Demolition costs	\$	0.76	\$	1,802
Bus fleet purchase and old bus scrapping	\$	46.58	\$	109,941
Fare-collection systems	\$	1.48	\$	3,504
Recurring annual costs				
Infrastructure Maintenance Costs (Improved Mobility Component)	\$	2.08	\$	4,908
Infrastructure Maintenance Costs (Urban Upgrading Component)	\$	-	\$	-
Fleet Maintenance Costs	\$	-	\$	-
Operation and Fare Collection costs	\$	6.66	\$	15,716
Total Costs	\$	194.60	\$	459,312
Total Corridor Kilometers delivered				10.20
Economic costs per kilometer	\$	19.08	\$	45,031
COP 2006 1 USD = 2360.26 COP				

Source: own with information from Hacienda

Table 4 presents total costs for one time investments and 2006 net present value of the estimated recurring annual costs for a horizon of 20 years (2004-2025). The costs reflected in the table are numerically identical to those reported in the ex-post evaluations; however, Table 4 presents aggregated value for studies and infrastructure costs for ease of understanding. Costs were calculated for each case using shadow price index, and COP/USD exchange rates were taken for the year in which the analysis was conducted. Costs associated with time losses during construction are not present in the study as mentioned before. An estimation of the economic costs per kilometer of corridor was conducted as benchmark with other average costs per kilometer in comparable BRT systems in Colombia and the Region. The results show that the average economic cost per kilometer is nearly \$19 million (2006 dollar prices). These results are consistent with other analysis of typical BRT infrastructure costs.

Benefits

Benefits drawn from the ex-post analysis for the Bogota Transmilenio Suba Corridor are included in Table 5. The table includes all economic benefits reported in the ex-post analysis, including benefits from reduction in car accidents, which, as mentioned earlier, were calculated in a separate analysis from the other three standard benefits (reduction in travel times, bus fleet operating costs, and GHG and other pollutant emissions). The benefits derived from reduction in road safety-related accidents are only calculated for a three year period, in contrast to the other benefits which are estimated for a 2 year period. For the sake of comparison, this ICR adds the costs of four components considered in the standard methodology.

Table 5 – ex-post benefits for Transmilenio Suba subproject

2004-2025 Project Benefits (Social Discount Rate: 12%)	\$, Million USD 2006
Savings in Public Transport Fleet Operating costs	\$ 144.85
Savings in travel times for project users	\$ 23.93
Savings (reductions) in GHG and/or local pollutant emissions	\$ 23.74
Savings (reductions) in road accidents (fatal and non-fatal), 2003-2006	\$ 37.20
Total Benefits	\$ 229.71
Total Corridor Kilometers delivered	10.20
Economic benefits per kilometer	\$ 22.52
COP 2006 1 USD = 2360.26 COP	

Source: own with information from Hacienda

Table 5 presents total benefits for the period of analysis for the project, 2004–2025. The benefits reflected in the table are numerically identical to those reported in the ex-post evaluations. For the Bogota BRT Suba subproject, the highest benefits are attributed to savings in operating costs of the bus fleet. This is understood for three main reasons: (i) the reduction of the bus fleet due to scrapping (Transmilenio required its operators to scrap six old buses for every new trunk bus and two buses for every new feeder bus) rationalizes the supply of transport and hence the number of units operating at any given time, in particular at non-peak hours where oversupply of the traditional system is highest; (ii) the use of high capacity buses, which reduces the fleet size and number of operators working at any given time; and (iii) the use of more efficient engines, fuels and maintenance procedures, which reduces fuel consumption. Savings in travel times are significant benefits for commuters shifting away from the traditional system to the BRT system due to higher travel speeds in BRT exclusive lanes and the introduction of a limited, pre-defined number of stops with reduced boarding times due to the use of ticketing inside stations. Thirdly, benefits related to reduction in GHG and other pollutant emissions correlate to other benefits, in particular to the rationalization of the bus fleet, the use of high capacity, energy-efficient vehicles, and lastly, to modal shift from more energy intensive modes (private vehicles) to transit. This shift has been estimated to be around 6 to 8% of the total demand of the system in other evaluations conducted within the Transmilenio system; in particular, as part of the Monitoring, Verification and Reporting system (MRV) of the Clean Development Mechanism which allowed Transmilenio to sell emissions reductions in the global carbon market.

An estimation of the economic benefits per kilometer of corridor was conducted for the sake of comparison with other BRT systems in Colombia and the Region. For the Transmilenio Suba corridor, benefits are estimated around \$22.52 million per kilometer. These results are comparatively higher to the results in other cities, mainly due to the higher passenger volumes mobilized in Bogota if compared to other smaller cities. The results are consistent with other analysis of typical BRT infrastructure costs.

Conclusions: Results of the Analyses

Expost Evaluation

The ex-post evaluation for the Suba BRT Corridor shows that the Mass Transit subcomponent financed by the BUSP produced social benefits in excess of their costs. The results of the ex-post analysis are congruent with the ex-ante economic evaluations conducted during appraisal.

Table 6 shows the comparison of the economic evaluation of the Transmilenio BRT Suba subproject done ex-ante (at project appraisal) and expost. The results of the expost evaluation allow differentiating between public investment and the combination of public and private investment, given that the private sector invested capital and recurrent costs for procuring and operating the bus fleet and the ticketing system.

As expected, the numerical results vary from between ex ante and expost evaluations. The appraisal economic evaluation estimated an Economic Rate of Return (ERR) of 28.54%, and a Net Present Value (NPV) of nearly US\$ 141 million (2002 dollars). The Benefit Cost Ratio was at 1.37. The expost evaluation returned lower results: ERR of 14%, a Benefit Cost Ratio of 1.12 and a NPV of US\$21.14 million (2008 dollars). However, between 2008 to present, the Corridor has experienced additional passenger demand which suggest that benefits were calculated on the lower side at time of the expost evaluation in 2008.

The results discussed appear consistent with the objective of the project and reflect the positive impact that the BRT subprojects had on improving mobility in Bogota. It is also important to mention that both the expost and the ex-ante analysis at appraisal conclude that the main economic benefits of the BRT subproject come from a reduction in the costs associated to the operation of the public transport system. In the case of the Caracas Corridor in Bogota (where operation began in 2001) the main benefit is attributed to travel time

savings. In Bogota, where Transmilenio’s overall demand levels remain spectacularly high, ex post evaluations show results that indicate the benefits for the total population of project users outnumber the benefits derived from increased efficiency of the system.

Table 6 – CBA results

Evaluation (year)	Scenario and Evaluation Period	Economic NPV @12% Rate of Return	discount rate (US\$ millions)	US\$ million year	Benefit/ Cost Ratio	Main Economic Benefit
Appraisal (2002)	10 years	28.54%	\$ 141.40	2002	1.37	Vehicle operating cost savings
Expost (2008)	20 years, public investment only	19.60%	\$ 67.34	2008	1.54	Vehicle operating cost savings
	20 years, public and private investment	14.00%	\$ 21.14	2008	1.12	Vehicle operating cost savings

Source: Own elaboration with data from Hacienda and PAD

Incidence Analysis

Table 6 shows the results of an incidence analysis of the population that benefited by specific subproject encompassed by selected subprojects in Project Component B. The benefited population indicates that the investments undertaken in Project Component B had a tangible impact in at least 1.2 million inhabitants (assuming the most conservative overlap of incidence among projects). Calculations on incidence were done at a UPZ level of detail and consider population groups by income.

Table 6. Incidence Analysis Results

Component	low income strata	middle income	high income	Total Incidence
A1 Suba BRT Corridor	11,441	96,461	50,705	158,607
A2 Feeder Routes	1,200,582	1,308	-	1,201,890
A3 Bike paths and sidewalks	606,704	-	-	606,704
B3 Access to neighborhoods	1,122,456	-	-	1,122,456
B5 Works with Citizen Participation - OPC	100,450	-	-	100,450

Annex 4. Bank Lending and Implementation Support/Supervision Processes

The following task team members reflect a selection of critical members from the preparation, supervision and ICR stages. There were many people who contributed to the project during the supervision stages and hence there was an important turnover during the execution of the project. Given the timespan of the project from preparation to closing, this ICR presents the list of critical staff. A thorough list of names can be found on project files, particularly in the individual ISRs of the project.

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Thakoor Persaud	Lead Infrastructure Specialist	LCSFU	Task Team Leader
Danny Leizpiger	Sector Manager	LCSFT	Transport
Jose Luis Irigoyen	Sector Manager	LCSFT	Transport
Mauricio Cuellar	Senior Transport Specialist/Co-Team Leader	LCSFT	Transport
Jose Barbero	Senior Transport Specialist	LCSFT	Transport
Marcela Silva	Transport Specialist	LCSFT	Transport
Guillermo Ruan	Lead Highway Engineer	LCSFT	Transport
Melanie Glass	Junior Professional Associate	LCSFT	Transport
Elena Correa	Senior Social Scientist	LCSEO	Social
Juan Lopez-Silva	Senior Environmental Specialist	LCSEN	Environment
Daniel Boyce	Senior Financial Management Specialist	LCCOAA	Financial management
Efraim Jimenez	Senior Procurement Specialist	LCOPR	Procurement
Joseph Formoso	Senior Finance Officer	LOAG3	Loan Management
Jozef Draaisma	Senior Country Economist	LCSPE	Economist
Sally Burningham	Senior Engineer	EASTR	Peer Review
Judy Baker	Senior Economist	TUDRR	Peer Review
Jorge Rebelo	Lead Transport Specialist	LCSFT	Peer Review
Eduardo Brito	Head Lawyer for Colombia	LEGLA	Legal
Tatiana Daza	Program Assistant	LCSTR	Administration
Fatima Galarraga	Language Program Assistant	LCSFP	Administration
Marta Kozak	Program Assistant	LCSFP	Administration
Supervision/ICR			
Mauricio Cuellar	Senior Transport. Specialist	GTIDR	Task Team Leader
Diomedes Berroa	Senior Operations Officer	LCSPT	Operations
Kristine M. Ivarsdotter	Senior Social Development Spec	LCSSO	Social
Karina Kashiwamoto	Language Program Assistant	LCC1C	Administration
Juan Lopez-Silva	Consultant	LCSEN	Environment
Jose M. Martinez	Senior Procurement Specialist	EC SO2	Procurement
Shomik Mehndiratta	Lead Urban Transport Specialist	LCSTR	Transport
Gerhard Menckhoff	Lead Transport Specialist / Consultant	MNSTR	Transport
Carlos H. Mojica	Junior Professional Associate	LCSTR	Transport
Camila Hernandez Rodriguez	Infrastructure Specialist	LCSTR	Transport

Rodrigo Archondo-Callao	Senior Highway Engineer	GTIDR	Transport
Diomedes Berroa	Lead Specialist	OPSOR	Procurement
Malcolm D. Childress	Senior Land Administration Specialist	GURDR	Urban Specialist
Jeannette Estupinan	Senior Financial Management Specialist	GGODR	Financial Mgmt
Carlos Alberto Molina Prieto	Social Development Specialist	GSURR	Social Development
Angelica Nunez del Campo	Senior Urban Specialist	GSURR	Urban
Camila Rodriguez Hernandez	Senior Infrastructure Specialist	GTIDR	Transport
Santiago Rene Torres	Procurement Specialist	GGODR	Procurement
Alexandra Ortiz	Program Leader – Sustainable Dev.	LCC1C	Urban Development
Diana Ortiz Zuluaga	E T Consultant – Economist	EACVF	Urban Economist
Ramon Munoz-Raskin	Urban Transport Specialist	GTIDR	Transport
Leonardo Canon Rubiano	Transport Consultant	GTIDR	Transport
Oswaldo Patiño	Consultant	GTIDR	Transport

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY02	45	245.17
FY03	46	224.03
FY04	6	7.96
FY05	0	0.00
FY06	0	0.00
FY07	0	0.00
FY08	0	0.00
FY09	0	0.00
Total:	97	477.16
Supervision/ICR		
FY03	1	5.92
FY04	20	112.78
FY05	30	114.42
FY06	29	129.54
FY07	20	86.68
FY08	38	206.52
FY09	36	147.17
FY10	20	139.93
FY11	23	112.61
FY12	30	112.01
FY13	47	183.77
FY14	24	120.41
FY15	19	101.63
Total:	338.77	1,573.40

Annex 5. Beneficiary Survey Results

No specific beneficiary survey was conducted, mainly due to this document not being elaborated as Intensive Learning ICR. Nevertheless, for the purpose of identifying beneficiary perceptions on the project this ICR uses the “Bogota *Cómo Vamos*” citizen Survey. The survey is an evaluation tool based on public perception indicators designed for different sectors across the City, which could be used as a proxy for the project given its city-wide scope.

Citizen Perception Surveys (“Como Vamos”) Surveys

Introduction

The “Bogota Como Vamos” Perception Survey (the Survey) is an initiative lead by the private sector which conducts an annual public perception survey aiming at measuring public satisfaction with urban life, including dimensions of education, health, public services, security and mobility. This survey has become one of the most important sources of information available on the quality of life of Bogota citizens, and the initiative has been replicated in more than 7 major Colombian cities. The survey has a defined methodology that is applied consistently in Bogota and other participating Colombian cities and across time with an annual frequency. The survey collects the opinion of between 1,000 and 1,500 individuals from both genders that represent the various zones and social strata in participating cities. The survey is a private sector initiative bringing together the Corona Foundation, the local chamber of commerce, a local newspaper and a private university in each city.

The main evaluation tool is the series of public perception indicators designed for each sector. The survey reports perception indicators related to health, education, jobs, public space and public service provision. Public service provision includes utilities such as electricity, cable, gas, water and sewage as well as waste collection. The survey also includes a separate chapter focusing on mobility and a number of questions related to the perceived performance of public transport in general, and of the mass transit system. IPSOS-Napoleon Franco administers the survey and processes and analyzes the data. The survey has been carried out in Bogota continuously between 1998 and 2013.

Survey Characteristics

The survey methodology and types of questions have evolved over time. Between 1998 and 2007, the survey documented perceptions on availability of public space, coverage of public service provision and modal share in urban mobility. This survey design was intended to reflect advances in coverage and availability of services. This focus reflects the fact that Bogota was undergoing an era of increase in coverage in public services (water and sewage in particular), increase in availability and quality of public space, and improved transport services with Transmilenio. In consequence, the results from the survey between 2003 and 2007 reflect primarily availability, coverage and modal share as stated above.

In 2008, the survey was modified to prioritize citizen perception about quality of public space, public services and transport. The change was motivated due to the city achieving very high levels of coverage of public services (including Transmilenio) as well as availability of public space. After 2008, the annual perception survey prioritized citizen perception of quality of services over coverage, even though coverage was also included in surveys after 2008. The results presented in this Annex are focused on reporting citizen perception. It is important to note however that the BUSP project was crucial in increasing the coverage of water and sewage services.

Overall results for Public Service Provision, Public Space and Urban Mobility

Public Space: the survey reports user satisfaction with public space, and asks specific questions on quality of street lighting; quality of parks and green areas; sidewalks and pedestrian paths; and overall city public space. Between 2004 and 2013, the survey measured total citizen perception on public space, including parks, streets, street lighting, sidewalks and paths. All indicators showed a positive trend between 2004 and 2007, with ratings averaging scores of 76, 70, 80 and 68%. The positive trend continued between 2008 and 2013 for all indicators; parks and green areas registered a flat trend.

Public Service Provision: The survey reports 100% coverage in water and sanitation in Bogota since 2009, showing an impressive evolution in coverage between 2002 and 2007, where the baseline indicators showed water coverage of 97% and sewage of 80%. User satisfaction regarding provision of water and sanitation has experienced a positive increasing trend, rising from 58% in 2004 to 72% in 2013 (water) and from 60% in 2004 to 63% in 2013 (sewage).

On the other hand, satisfaction with city and neighborhood roads has been increasingly consistently. In 2012, on average 53 percent and 38 percent of survey respondents were satisfied with the quality of neighborhood and city roads, respectively. These percentages have increased from 41% and 30 percent in 2008-2009.

Public Transport and Mobility: Satisfaction with travel times, cleanliness, safety and security of the Transmilenio mass transit system in Bogota showed a steady positive trend between 2003 and 2007. Ridership increased steadily year by year proving that the system is desirable, reliable and fast if compared with para-transit and private modes (along the most congested corridors). Survey results with regards to overall urban mobility conditions and the performance of mass transit systems in Bogota is included below. The main conclusions include:

Overall satisfaction with the Transmilenio mass transit system in Bogota showed a positive trend between 2004 and 2007. Transmilenio and SITP usage among the surveyed population has continued to increase and is now 45, from 27 percent in 2011, relative to the 6 percent verified in 2002. The introduction of the complete Suba and NQS corridors after 2006 indicates an increase in Transmilenio usage, which went from 14 percent in 2007 to 24 percent in 2009. Usage of traditional public transport reported a large decrease from 47 percent in 2011 to 29 percent in 2014. Private transport has also descended from 25 percent to 13 percent over the same period of time. It was also observed that public transport in Bogotá (Transmilenio buses and minibuses) continue to show increasing trends of occupation over the traditional bus service, showing a preference of users for the SITP and Transmilenio service for its speed, coverage, reliability, safety and security amongst others.

Annex 6. Stakeholder Workshop Report and Results

Not Applicable

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

A. Main Achievements, Lessons Learnt and Future Challenges

Main Achievements, Lessons Learnt and Future Challenges Faced by the Implementing Agency
(Translated from Spanish by the authors of this document, see original version in Spanish below):

COMPONENTS	ACHIEVEMENTS	LESSONS LEARNED AND RECOMMENDATIONS
A.1. construction of roads	<ul style="list-style-type: none"> -Reduction of travel times within the city and its direct generated benefits. -Integration of the population with low economic resources to urban services. -Decrease in the road safety-related accident rates. - Reduction of social exclusion and pollution. -Growth of the Transmilenio system coverage 	<p>With the implementation of the Suba corridor there was continuity to the structural change of the city, contributing to reduce mobility-related problems in the city and satisfying the high demand for transport at low cost for the Government and for the users. For future projects, it is recommended to give continuity to the implementation of the subsequent phases of Transmilenio in order to achieve the reorganization of public transport in the light of the strengthening of the integrated public transport system (SITP), as well as the First Metro Line Project, which will soon complete the detailed basic engineering designs phase.</p>
Construction of feeder routes A.2	<ul style="list-style-type: none"> -Consolidation of the feeder route network, connecting users to Transmilenio and allowing its proper operation. -Continuity to the unification of the city's transport system. -Growth of the coverage of the Transmilenio system, increasing the number of users and allowing access to the population located in the periphery and residing in-income neighborhoods. -Motivation for investment in physical capital. -Connections to BRT trunk routes 	<p>The project contributed to the improvement of the environment and quality of life of the inhabitants of the UPZs prioritized for improvement through the valorization of housing. As a recommendation, the District should track the maintenance of the undertaken works in order to allow subsequent up scaling of the system, so that is able to meet the total demand for transport of the inhabitants residing in the most isolated and excluded parts of the city.</p>
A.3 non-motorized transport	<ul style="list-style-type: none"> -Generation of public space built and generated by the project, for the use of the mobility (cycling), accompanied by additional all-purpose pedestrian infrastructure. -Improvement of public space in its physical quality and spatial quality. -Increase the use of bicycles -Motivation to invest in physical capital 	<p>The generation of infrastructure for non-motorized transport, which secured connectivity of the current network of cycling routes as an alternative transport system. As a recommendation, the outline designs for non-motorized transport corridors should be detailed. Equally it is recommendable to give continuity to the formulation of the cycling paths with their respective signage and lighting maintenance program.</p>
A.4 transit and transportation	<ul style="list-style-type: none"> -Technical, financial and legal structuring of the different projects that are part of the Mobility Master plan for Bogota, which is the road map for the city's transport infrastructure upgrading. -Teaching methodologies and educational strategies of road safety proposals. -Road safety and traffic behavior studies -Support to the formulation of the first phase of the Integrated Urban and Regional Mobility Information System, SIMUR. -Various actions related to campaigns for the prevention of road accidents and the improvement of road safety was executed, with the consequent reduction of accident rates. 	<p>-The implementation of the project contributed to the prevention of accidents and the improvement of road safety with the consequent reduction in the accident rate. It is recommended that this program should be continued with the following stages of structuring in order to implement the proposed projects (modal exchangers, parking lots, pedestrian networks, information system, logistics corridors, etc. – as envisioned in the mobility Master Plan (PMM). Equally, the prioritization of more sustainable transport subsystems, such walking or biking and public transport, is recommended, this without giving up the complementarity of private transport.</p> <p>-It is recommended to continue with education campaigns citizen and programs of road safety to ensure the sustainability in the long term of those projects that are essential to reduce accidents, congestion and achieve self-regulation.</p>

<p>A7.Improvement of mobility - integrated mass transit system</p>	<p>-Technical, legal and financial structuring for the integrated public transport system- SITP of Bogotá, -Elaboration of the basic advanced engineering designs for the construction of Bogota First Metro Line Project - PLMB. -Elaboration of the legal structuring studies for the construction of the PLMB. - Elaboration of the financial structuring studies for the construction of the PLMB Elaboration of the social evaluation studies for the construction of the PLMB Elaboration of the environmental evaluation studies for the construction of the PLMB.</p>	<p>-It is necessary to generate indicators that measure the effectiveness of these programs -It is recommendable to increase the availability of information and promote own dissemination of printed material through any training in partnership with academics. -During the execution of the component A.7, Bogota identified a weak formulation and systematization of management indicators, so it is recommended for future projects to strengthen the support and coordination from the World Bank towards IDU, especially during the formulation of output indicators, as well as by implementing a tool of systematization of these indicators built in a coordinated manner at the time between implementing agency/borrower and World Bank. -One of the aspects that arose regarding the unification of the rules and procedures of the Bank and the borrower was disbandment on filing system. It is recommended for future experiences, to configure task teams that are able to work across the different implementing subunits, which in turn have access to tools, training and dissemination of the standards of the World Bank, seeking a better articulation and application of the rules and procedures. -Facing the possibility of underfunding of the project due to scarce resources, it is recommended strengthening the tools, resources and strategies for sustainability of the project in relation to strengthening the SITP and the PLMB Project, through strategic partnerships with cooperating agencies and the World Bank, which in turn can promote the dissemination of the project at national and international level, in virtue of the coordination and support of the World Bank. Planning and legalization became the tool for urban development, as a key element for the improvement of neighborhoods in the incompletely developed UPZs. A positive aspect that can be expanded and strengthened through dissemination of the project campaigns is the establishment of alliances with the local and national community, as well as increasing the availability of information and promote own disclosure of legalization processes. The component of public utilities, as the articulator of the program in its first phase, intended to overcome the deficit in domiciliary services of water supply and sewerage and from this mobility projects which allowed the articulation of the UPZs with the functional structure of the city. In this regard, it would be relevant to strengthen inter-institutional coordination accordingly to the magnitude of the project and thus avoid delays and cost overruns at subsequent stages and generate institutional spaces to resolve problems associated with interventions in different areas. -During the project design and the execution thereof, the community formed part of the process of learning and self-recognition of their territories by the characterization and identification of access to neighborhoods, reason by which this process through the joint coordination between planning, implementing entities, road infrastructure operators and beneficiary communities must be strengthened. -It is desirable to define an adequate budget for the upgrading of public utility networks in future interventions.</p>
<p>B.1 legalization and planning</p>	<p>-Design of the urban structure -Design of normative tokens for the UPZ's prioritized. -Urban legalization of neighborhoods. -Provision of urban services closer to the citizen, -Joint from the informal to the formal city. -Motivation to invest in physical capital because of the sense of ownership and belonging. -Motivation for investment in social capital -Urban services closer to the citizen.</p>	<p>Planning and legalization became the tool for urban development, as a key element for the improvement of neighborhoods in the incompletely developed UPZs. A positive aspect that can be expanded and strengthened through dissemination of the project campaigns is the establishment of alliances with the local and national community, as well as increasing the availability of information and promote own disclosure of legalization processes.</p>
<p>B.2 water supply and sewerage</p>	<p>-Construction of local networks of aqueduct -Construction of local networks of sewerage -Adequacy of local connections -Legalization of neighborhoods -Decrease of the mortality morbidity -Institutionalized and sustainable visual, practical and transparent planning system -System of investment information published on the Internet</p>	<p>The component of public utilities, as the articulator of the program in its first phase, intended to overcome the deficit in domiciliary services of water supply and sewerage and from this mobility projects which allowed the articulation of the UPZs with the functional structure of the city. In this regard, it would be relevant to strengthen inter-institutional coordination accordingly to the magnitude of the project and thus avoid delays and cost overruns at subsequent stages and generate institutional spaces to resolve problems associated with interventions in different areas.</p>
<p>B.3 access to neighborhoods</p>	<p>-Improvement of the accessibility to neighborhoods -Organization of intra-neighborhood mobility -Motivation for investment in social capital -Generation of physical private investment by the closest neighbors to the works on the improvement and reconstruction of facades or parts of real estate, generating new sometimes economic activities.</p>	<p>-During the project design and the execution thereof, the community formed part of the process of learning and self-recognition of their territories by the characterization and identification of access to neighborhoods, reason by which this process through the joint coordination between planning, implementing entities, road infrastructure operators and beneficiary communities must be strengthened. -It is desirable to define an adequate budget for the upgrading of public utility networks in future interventions.</p>

<p>B.4 resettlement of families</p>	<ul style="list-style-type: none"> -Prevention of loss of life. -Prevention of physical risk -Technical assistance, personalized attention, resettled families. -Safeguarding of the lives of the people who were at high risk. -Replacement of a technically viable, economically sustainable and environmentally sustainable housing. -Motivation to invest in physical capital -Motivation for investment in social capital 	<ul style="list-style-type: none"> -The selection process for small amount procurement processes has been counterproductive in terms of the final quality of the projects. Therefore it is recommended to establish lists, which allow a weighed selection process based on the technical qualifications. -Assurance of funding for maintenance of works that ensures quality, service at the time and long-term sustainability. -One of the features of this component is that it was planned for the short term to meet the population that was identified at the time in high risk areas, for this reason, it is recommended to give political viability of resettlement, which should be understood as part of the instruments in the habitat and human security policy. -One of the central aspects of the project was the improvement of the families in terms of the physical characteristics of the housing but, in some cases a situation of deterioration was produced, or individuals persisted in a condition of social vulnerability. In this sense, the program should be accompanied by resettlement policies for training and employment that will improve incomes and contribute to the sustainability of the program in the long term, so that households do not have to reduce expenditures that are dedicated to education and food, essential factors for the formation of human capital -During the execution of the project and from the impact assessment, several students not attending school were identified. In this sense, it is required greater support to families, and a more effective interaction with the education sector to obtain school quotas in the nearby educational institutions -The change of educational establishment and social environment, would be inhibiting the continuity of students in the educational system, being necessary a longer period of social support for adaptation to the new environment and support the reconstruction of the social fabric -It is necessary to evaluate VIS type 1 housing, as an alternative of housing awarded under the program, since they are too small for households that are usually very numerous, quite possibly creating overcrowding. -A monitoring program to assess the sustainability of the program in terms of quality of life of households, investment in human and physical capital, etc. should be put in place. -Given the high participation of the population under the age of 18, the program should aim to offer more facilities that foster social welfare, early childhood education, recreation and sport, all in the vicinity of resettlement housing projects.
<p>B.5 public space and equipment</p>	<ul style="list-style-type: none"> -Processes of information, participation and social management to the community for the construction of small works of public space in the targeted UPZs. -The execution of the works became a medium for the development of social capital and not an ending itself -Strengthening of relations of trust and cooperation between community organizations and public administration -Strengthening of community organizations so that they are able to implement their own development projects in the territory, in partnership with public and private entities -Take awareness of the different actors on the territorial issue and reflection on the priorities of intervention -Improvement of the environmental conditions through small investments with significant positive impacts 	<ul style="list-style-type: none"> -One of the features of this component was the decentralized planning and implementation of these works through contracts with the community to strengthen processes of empowerment of communities through learning of new skills and implementation of projects and participation of communities in the solution to their problems. In future stages, the participation of the community in the implementation of the program should be strengthened and broadened with this type of components through the incorporation of the good practices of the World Bank on the subject of participation and gender, as cross-cutting themes throughout the implementation.

	<p>-The process breaks the traditional management by town and district and leads to a more efficient intervention, equitable and comprehensive as it is the zonal planning unit (UPZ).</p>	<p>-Broaden the contribution in the social component resources, in order to achieve a greater impact on the development of community activities. -Review and improve the auditing schemes for the type of project in OPC (works with community participation) -Strengthen the training process by incorporating a specific module of accounting and financial management of projects.</p>
B.6 environment	<p>-Implementation of environmental recovery plans focused on environmental restoration in vulnerable areas of the main ecological structure: landscape restoration of the Quebrada La Hoya del Ramo. -Design of a Pact of land limits for the Altos de la Estancia area -Socio-environmental actions with the community of Altos de la Estancia -Observatory of sustainability of the habitat -Partial plan and morphological recovery in expanding area of quarries -Conclusion of covenants on UPZ borders adjacent to the main ecological structure. Additionally, the program had the following results: -Control and regulation of the growth of the city -Mitigation of the actions of illegal developers in land affected by natural disaster risk, rural areas and protected areas of the city. -Promotion of social processes of recognition and territorial appropriation. -Protection and management of ecosystems and restoration of natural and urban areas. -Generation of processes of participation of communities in the environmental aspects</p>	<p>With the implementation of this component was strengthened coordination and institutional management for medium- and long-term environmental issues and processes of recovery in degraded areas. It is recommended to formulate a policy where strategies of the city are defined in a unified way for dealing with Covenants on land plot borders, where incentive plans are generated for people who contribute their time and labor force in the environmental activities. It would also be important to ensure the maintenance of the works implemented through the BUSP.</p>
B.7 improvement of housing	<p>-Advice in order to achieve the titling of land (by direct process, or membership), through the district in case of tax assets or judicial proceedings. -Greater ownership and empowerment by citizens. -Technical assistance for the improvement and adaptation of structural, architectural and conditions of habitability of dwellings of households located in the prioritized UPZs. -Awareness-raising about the importance communities possess well-built homes under the urban rules and earthquake resistant.</p>	<p>-Approach completeness of the comprehensive neighborhood upgrading project -PMIB that sheltered the component of improved housing, contributed to the reduction of the vulnerability of the city to natural disasters (social and fiscal impact) and promoted the motivation for investment in physical and social capital through titling of lands to accredit as owners those prioritized UPZ households, and access to the benefits that gives the legal city. It would be advisable to strengthen the effectiveness and efficiency of these processes implemented in the program, including the simplification of the requirements so that a family entering the house upgrading program, as well as streamlining the processes of licensing of construction and disbursements of resources.</p>
C.2. technical assistance to Caja Popular de Vivienda	<p>-Project coordination and implementation of spaces of encounter between entities and community (cores of citizen participation) -Assembly of a monitoring system for the comprehensive improvement of neighborhoods program.</p>	<p>-With the implementation of this component, where the participation of the community in the identification and diagnosis of its needs was based, the program innovated and implemented a decentralized model of planning of local and zonal type from the territories. It is recommended for future projects to strengthen and expand the participation of the community in the implementation of the priority projects, through the processes of participatory planning and consultation for decision-making. And thus promote a new scenario planning, which allows that is simultaneously strengthening ownership of processes and territorial empowerment by the community, with a consequent increase in the institutional credibility.</p>

<p>C.3. technical assistance to the DAMA (district Secretary of environment)</p>	<ul style="list-style-type: none"> -Evaluation of the management of the pollution -Adjust to emissions from mobile sources control program. -Updating, expansion and technological upgrading of the network of monitoring pollution -Evaluation of the network of air -Acquisition of equipment and accessories for the monitoring of emissions from mobile sources -Acquisition of a mobile unit for measuring and monitoring air quality -Dissemination, education and public awareness on the prevention and control of atmospheric pollution 	<ul style="list-style-type: none"> -Also it is recommended to continue with the implementation of the tracking system of the PMIB consisting of a database and its interface with a Geographical Information System (GIS). -Through the execution of this component contributed to the elaboration of a tool of environmental sustainability for the city, which simultaneously led to communication, education and public awareness on the prevention and control of atmospheric pollution. It would be advisable to give continuity to the implementation of this tool, generate a long-term strategy that overcomes the remedial concept of investments (co-funded projects) and financially support processes, as well as strengthen projects that connect the social network with the environmental dimension. -Ensure the maintenance of the works and actions already carried out in phase I of the project and in this way, strengthen the follow-up activities, monitoring and indicators so that projects can assess with greater reliability in their impact and form the basis for decision making. -Expand investment in air quality especially in issues related to mobility and management of industries. -Disseminate more broadly by some mass media values of contamination of public knowledge.
<p>C.4. technical assistance to the Department of planning district (District Planning Secretariat)</p>	<ul style="list-style-type: none"> -Formulation of the guidelines of the mobility Master Plan -Guides and technical data sheets for evaluation of elements of the system of mobility -Sectorial mobility (historical center Plan plans -Definition of local mobility circuits (CML) in the 14 MIB UPZs -Definition of road reserve areas and road effects produced by the City Road subsystem. -Policy formulation of resettlement -Formulation of policy of recognition of improvement of conditions of housing (urban formality) -Urban guides 14 UPZ (Regulation) -Inclusion of Bogotá in the markets international (TLC) analysis studies -Promotion of the participation of the city in networks of cities (RAC - UCCI) -Regulation of local units of business development, ULDES -Formulation Plan Bogota as territory of the knowledge and the agenda of regional science and technology Bogota - Cundinamarca - -Cartographic updating and creation of socio-economic data base of rural areas of Bogota. -Sectorial mainstreaming of the issues and inter-institutional coordination as important elements in the development of the different studies 	<ul style="list-style-type: none"> -Through the implementation of this component the city advanced on improving sustainability and capacity planning of the institutional scheme that provides the main urban services, it is recommended to give sustainability to the formulation of policies especially those related to the improvement of urban conditions, such as resettlement, which was formulated, but it failed to materialize as Decree, and thus standardize compensation and normative action in this matter. -Take advantage of the formulation of the guidelines for the preparation of road infrastructure projects monitoring indicators Also recommended: -Incorporate in cases that have not been performed, incomplete developments and the PMIB master plans of equipment, in the neighborhood scale of social welfare, preschool education, and recreation and sports facilities. -Incorporate the monitoring indicators of the master plans in the implementation of the plans in relation to mobility, building roads, and public space. -Advance the developments together with other actors, the regional the regional agenda surrounding joint, as well as with the international network of cities.
<p>C.7. technical assistance to SHD and cadaster: Fiscal management and urban planning</p>	<ul style="list-style-type: none"> -Update and cadaster modernization through institutional reform. -Progressive increase in the ratable value of the city. -Improvement of fiscal management and revenue with a consequent significant increase in revenues from the city -Reduction of the volume of cadastral formalities by the citizens. -Has a scheme of work processes and procedures, with a new value chain, and a new structure and staff 	<ul style="list-style-type: none"> -In the case of the UAECD was a proper planning from the formulation of the project and a successful execution, where it involved different entities in the district including the SHD, land registry and planning district, which joined efforts in order to give scope to the modernization of cadaster and the possibility of improving the district's finances, technical recommends generate and systematize the model of successful intervention from the operation so that it is easily spread to national and international levels with the support of the World Bank. -Strengthen the effectiveness in implementation since the formulation of the project, as a central aspect, this way is recommended for future projects, from the design stage have clear objectives and goals, where execution make part of

<p>C.8...Technical assistance to cadaster: strengthening technological UAECD</p>	<ul style="list-style-type: none"> -Updated information and cadaster modernization and incorporation into databases. -Improvement of cadaster processes. -Completed the design and implementation of the infrastructure of spatial data of Bogota IDECA. -Updated the aerial image of Bogotá - orthophotography 	<p>the design and formulation of the project and is articulated at the other stages of the planning.</p> <ul style="list-style-type: none"> - The strengthening of the UAECD procedures and processes related to: technology, institutional capacity and organizational culture, as part of the development of one of the components of the project, had as a consequence that the entity position in terms of modernizing and updating cadastral, and that to succeed as added value in improving the district's finances in the short and medium term. It would be desirable to ensure the sustainability of these processes through a greater outreach, education and awareness of the public about these thereof, including the consequent increase in the ratable value, with the objective of arriving at an institutionalized and sustainable visual, practical and transparent planning system. -In the UAECD delays were generated in contracts related to technical issues as the modernization and updating of the cadastral information, suggested strengthening the technical assistance by the World Bank towards implementing bodies in cases of implementation of contracts difficult predictability or requiring a specific technical requirement and more.
<p>C.9. strengthening technical IDU</p>	<ul style="list-style-type: none"> -Update inventory and diagnosis of the network of arterial roads in Bogota. -Implementation of an administrative system. -Update of inventories and diagnostics of vehicles and pedestrian bridges of Bogotá. -Accomplishment of tests of erosion resistance for materials used as bases for hydraulic concrete pavement structures 	<ul style="list-style-type: none"> -One of the aspects that may occur as a threat of this component is its underfunding and respective disarticulation in issues related to the updating of the inventory of arterial roads and inventory and vehicle Diagnostics. It would be desirable to ensure the financial sustainability of these projects, through the articulation of these processes in the district mobility policies, with emphasis on the maintenance of the road mesh.

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
<p>A.1. Construcción de Vías</p>	<ul style="list-style-type: none"> - Reducción de tiempos de desplazamiento dentro de la ciudad y sus beneficios directos generados. - Integración de la población de más bajos recursos económicos a los servicios urbanos. -Disminución de los índices de accidentalidad. - Reducción de la exclusión social y contaminación. -Crecimiento de la cobertura del sistema Transmilenio 	<p>Con la implementación de la troncal Suba se dio continuidad al cambio estructural de la ciudad, contribuyendo a disminuir los problemas en el área de transporte y satisfaciendo la alta demanda a un bajo costo para el gobierno y para los usuarios. Para futuros proyectos se recomienda dar continuidad a la implementación de las fases siguientes de Transmilenio con el fin de lograr la reorganización del transporte público colectivo a la luz del fortalecimiento del Sistema Integrado de Transporte Publico (SITP) y el proyecto metro que se encuentra en fase de finalización del estudio de ingeniería básica avanzada.</p>
<p>A.2 Construcción de Rutas Alimentadoras</p>	<ul style="list-style-type: none"> -Consolidación de la red conectante al sistema Transmilenio para su adecuada operación. -Continuidad a la unificación del sistema de transporte de la ciudad. -Crecimiento de la cobertura del Sistema Transmilenio, aumentando el número de usuarios y permitiendo el acceso a la población ubicada en la periferia y los barrios de más bajos ingresos. - Motivación a la inversión en capital físico. -Conexión con rutas troncales 	<p>El proyecto contribuyó al mejoramiento del entorno y calidad de vida de los habitantes de las UPZs de mejoramiento mediante la valorización de las viviendas, se sugiere hacer seguimiento al mantenimiento de las obras con el fin de ir complementando el sistema, de tal forma que se logre atender la demanda total de los habitantes de los barrios más aislados y excluidos.</p>
<p>A.3 Transporte no motorizado</p>	<ul style="list-style-type: none"> - Generación de espacio público construidos y generados por el proyecto, para el uso de la movilidad (Ciclorutas), acompañado de adicionales de uso múltiple para el peatón. 	<p>Con la implementación de este componente se fortaleció la generación de infraestructura para el transporte no motorizado que aseguró la conectividad y seguridad de la red de Ciclorutas existente como sistema alternativo de transporte, se</p>

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
	<ul style="list-style-type: none"> - Mejoramiento de espacio público existente en su calidad física y cualidad espacial. - Incremento del uso de la bicicleta - Motivación a la inversión en capital físico 	<p>recomienda detallar los diseños para corredores de rutas de transporte no motorizado y dar continuidad a la formulación del programa de mantenimiento de las Ciclorutas con su respectiva señalización e iluminación.</p>
A.4 Tránsito y Transporte	<ul style="list-style-type: none"> -Estructuración técnica, financiera y legal de los diferentes proyectos que hacen parte del Plan de Maestro Movilidad de Bogotá, que se constituye en la hoja de ruta para la ciudad. - Propuestas de metodologías pedagógicas y estrategias educativas de seguridad vial. - Estudios de seguridad vial y comportamiento del tránsito <ul style="list-style-type: none"> - Apoyo a la formulación de la primera fase del Sistema Integrado de Información de Movilidad Urbano y Regional – SIMUR. -Se ejecutaron diversas acciones relacionadas con campañas para la prevención de la accidentalidad vial y el mejoramiento de la seguridad vial con la consiguiente reducción en la accidentalidad 	<ul style="list-style-type: none"> -Con la implementación del Proyecto se contribuyó a la prevención de la accidentalidad y el mejoramiento de la seguridad vial con la consiguiente reducción en la accidentalidad, se deberá continuar con las siguientes fases de estructuración con el fin de implementar los proyectos propuestos (intercambiadores modales, estacionamientos, redes peatonales, sistema de información, corredores logísticos, etc.–Como lo establece el Plan Maestro de Movilidad (PMM), es necesario la priorización de los subsistemas de transporte más sostenibles, tales como ir a pie o en bicicleta o en el transporte público, sin renunciar a la complementariedad del transporte privado. -Se requiere dar continuidad a las campañas de educación ciudadana y programas de seguridad vial para darle sostenibilidad en el largo plazo a dichos proyectos que son fundamentales para reducir la accidentalidad, la congestión y lograr la autorregulación. - Es necesario generar indicadores que permitan medir la efectividad de estos programas - Aumentar la disponibilidad de información y fomentar la propia divulgación de los impresos mediante alguna formación desde la academia.
A7. Mejoramiento de la Movilidad – Sistema Integrado de Transporte Masivo	<ul style="list-style-type: none"> -Estructuración técnica legal y financiera para el Sistema Integrado de Transporte Público –SITP, para Bogotá, D.C. - Realización de estudio de diseño de ingeniería básica avanzada para la construcción de la primera línea del metro de Bogotá. -Realización de estudio de la estructura legal para la construcción de la primera línea del metro para Bogotá. -Realización de estudio de la estructura financiera para la construcción de la primera línea del metro de Bogotá. -Realización de estudio de evaluación social para la construcción de la primera línea del metro de Bogotá. -Realización de estudio de evaluación ambiental para la construcción de la primera línea del metro de Bogotá. 	<ul style="list-style-type: none"> -Durante la ejecución del componente A.7 se identificó una débil formulación y sistematización de los indicadores de gestión, por lo cual se recomienda para futuros proyectos fortalecer el acompañamiento y la coordinación del Banco Mundial hacia el IDU, especialmente durante la fase de la formulación de los indicadores de gestión, implementando al tiempo una herramienta de sistematización de los mismos construida de manera coordinada entre ejecutor, prestatario y prestamista. -Uno de los aspectos que se presentó en cuanto a la unificación de las normas del Banco y del prestatario, fue la desarticulación en el tema de archivo, se recomienda para futuras experiencias, implementar equipos de trabajo transversales a las dependencias ejecutoras, que tengan acceso a herramientas, capacitación y divulgación de las normas del Banco Mundial, buscando una mejor articulación y aplicación de las mismas. - Frente a la posibilidad de que se dé una desfinanciación del proyecto debido a recursos escasos, se recomienda fortalecer las herramientas, recursos y estrategias de sostenibilidad del proyecto en relación al tema de fortalecimiento del SITP y tema metro, mediante la realización de alianzas estratégicas con organismos cooperantes y con el Banco Mundial, que promuevan a su vez la difusión del proyecto a nivel nacional e internacional, en virtud a la coordinación y acompañamiento del Banco Mundial.
B.1 Legalización y Planeación	<ul style="list-style-type: none"> -Diseño de la estructura urbana - Diseño de fichas normativas para las UPZ's priorizadas. - Legalización urbanística de barrios. - Disposición de contar con servicios urbanos más cerca del ciudadano, 	<p>La planeación y legalización se constituyó en herramienta para el desarrollo urbano, como elemento clave para el mejoramiento de barrios en las UPZs de desarrollo incompleto, aspecto positivo que puede ser ampliado y fortalecido mediante</p>

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
	<ul style="list-style-type: none"> - Articulación de la ciudad informal a la formal. - Motivación a la inversión en capital físico debido al sentido de propiedad y pertenencia. - Motivación a la inversión en capital social - Servicios urbanos más cerca del ciudadano. 	<p>campañas de divulgación del proyecto que permitan establecer alianzas a nivel comunidad, local y nacional, y aumentar la disponibilidad de información y fomentar la propia divulgación de los procesos de legalización.</p>
B.2 Acueducto y Alcantarillado	<ul style="list-style-type: none"> -Construcción de redes locales de acueducto -Construcción de redes locales de alcantarillado -Adecuación de conexiones locales -Legalización de barrios -Decremento de la morbi mortalidad -Sistema de Planeación visual, práctico, transparente institucionalizado y sostenible -Sistema de Información de Inversiones publicado en Internet 	<p>El componente de servicios públicos domiciliarios, como el articulador del programa en su primera fase, pretendió superar el déficit en servicios domiciliarios de acueducto y alcantarillado y a partir de éste se desarrollaron los proyectos de movilidad que permitieron la articulación de las UPZs con la estructura funcional de la ciudad, en este sentido sería relevante fortalecer la coordinación interinstitucional para dimensionar la magnitud del proyecto y así evitar retrasos y sobrecostos en las fases posteriores y generar espacios institucionales para dar solución a problemas asociados a las intervenciones en las diferentes zonas.</p>
B.3 Accesos a Barrios	<ul style="list-style-type: none"> -Mejoramiento de la accesibilidad a barrios - Organización de la movilidad intrabarrial - Motivación a la inversión en capital social - Generación de inversión física privada por parte de los vecinos más próximos a las obras en cuanto al mejoramiento y reconstrucción de fachadas y/o partes de los inmuebles, generando en algunas ocasiones nuevas actividades económicas. 	<ul style="list-style-type: none"> -Durante el diseño del proyecto y la ejecución del mismo, la comunidad formó parte del proceso de aprendizaje y autoreconocimiento de sus territorios mediante la caracterización e identificación de los accesos a barrios, razón por la cual se deberá fortalecer este proceso mediante la coordinación conjunta entre las entidades planificadoras, ejecutoras, operadoras de las infraestructuras viales y las comunidades beneficiarias. -Es deseable contemplar recursos suficientes para la adecuación de redes, en futuras intervenciones. - El proceso de selección del contratista de menor cuantía ha sido contraproducente en términos de la calidad final de los proyectos. Por ello se propone el establecimiento de listas, que a partir de la calificación técnica, presenten ponderación dentro del total. - Aseguramiento de recursos para el mantenimiento de obras que garantice la calidad, el servicio en el tiempo y la sostenibilidad de largo plazo.
B.4 Reasentamiento de Familias	<ul style="list-style-type: none"> -Prevención de pérdida de vidas humanas. -Prevención de riesgo físico -Asistencia técnica, atención personalizada, a familias reasentadas. -Salvaguarda de la vida de las personas que se encontraban en alto riesgo. -Reposición de una vivienda técnicamente viable, económicamente sustentable y ambientalmente sostenible. -Motivación a la inversión en capital físico - Motivación a la inversión en capital social 	<ul style="list-style-type: none"> -Una de las características de este componente es que se planeó a corto plazo para atender la población que estaba identificada en el momento en zonas de alto riesgo, por esta razón se recomienda dar viabilidad política del reasentamiento, la cual debe ser entendida como parte de los instrumentos en la política de hábitat y seguridad humana. - Uno de los aspectos centrales del proyecto fue el mejoramiento de las familias en cuanto a las características físicas de la vivienda pero, en algunos casos se dio una situación de desmejora o permanencia de la vulnerabilidad social, en este sentido se debería acompañar el programa de reasentamientos con políticas de capacitación y empleo que permitan mejorar los ingresos y contribuir a la sostenibilidad del programa en el largo plazo, de tal forma que los hogares no tengan que reducir los gastos que dedican a educación y alimentación, factores esenciales para la formación de capital humano - Durante la ejecución del Proyecto y a partir de la evaluación de impacto se identificaron algunos escolares por fuera del sistema educativo, en este sentido se requiere un mayor acompañamiento a las familias, y una mayor efectividad en la interacción con el sector educativo para obtener cupos escolares en los establecimientos educativos cercanos - El cambio de establecimiento educativo y de entorno social, estaría inhibiendo la continuidad de

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
		<p>los estudiantes en el sistema educativo, siendo necesario un mayor tiempo de acompañamiento social para lograr la adaptación al nuevo entorno y el apoyo a la reconstrucción del tejido social</p> <ul style="list-style-type: none"> - Es preciso evaluar las viviendas VIS tipo 1, como alternativa de vivienda que son las que se adjudican bajo el programa, debido a que son demasiado pequeñas para los hogares que generalmente son muy numerosos, generando muy posiblemente hacinamiento. - Se debe realizar un seguimiento al programa con el fin de evaluar la sostenibilidad del mismo en términos de calidad de vida de los hogares, inversión en capital humano y físico, etc. - Dada la alta participación de la población menor de 18 años, se debe ofertar en mayor número, en el entorno de los barrios de reasentados, equipamientos ligados al bienestar social, educación preescolar, recreación y deporte
B.5 Espacio Público y Equipamientos	<ul style="list-style-type: none"> -Procesos de información, participación y gestión social a la comunidad para la construcción de obras pequeñas de espacio público en las UPZs priorizadas. -La ejecución de las Obras se constituyó en un medio para el desarrollo del capital social y no un fin en sí misma - Fortalecimiento de las relaciones de confianza y cooperación entre las organizaciones comunitarias y la Administración Pública - Fortalecimiento de las organizaciones comunitarias para que sean capaces de implementar sus propios proyectos de desarrollo en el territorio, en asocio con entidades públicas y privadas - Toma de conciencia de los diferentes actores sobre la problemática territorial y reflexión sobre las prioridades de intervención - Mejora de las condiciones de entorno mediante pequeñas inversiones con importantes impactos positivos - El proceso rompe la tradicional gestión por localidad y por barrio y propicia una intervención de mayor eficiencia, equitativa e integral como es la Unidad de Planeamiento zonal (UPZ). 	<ul style="list-style-type: none"> -Una de las características de este componente fue la planeación descentralizada y la puesta en marcha de estas obras mediante contratos con la comunidad para fortalecer procesos de empoderamiento de las comunidades mediante el aprendizaje en el tema de formulación e implementación de proyectos y participación de las comunidades en la solución a sus problemas, se debería fortalecer y ampliar la participación de la comunidad en la ejecución del programa de este tipo de componentes mediante la incorporación de las buenas prácticas del Banco Mundial en el tema de participación y género, como eje transversal a la ejecución. -Ampliar el aporte en recursos del componente social, a fin de lograr un mayor impacto en el desarrollo de actividades comunitarias. -Revisar y mejorar el esquema de interventoría para el tipo de proyectos en OPC (Obras con Participación Comunitaria) -Fortalecer el proceso de capacitación incorporando un módulo específico de manejo contable y financiero de los proyectos.
B.6 Medio Ambiente	<ul style="list-style-type: none"> -Ejecución de planes de recuperación ambiental enfocados en la restauración ambiental en áreas vulnerables de la estructura ecológica principal: restauración paisajística de la Quebrada La Hoya del Ramo. -Diseño de un pacto de bordes para la zona de Altos de la Estancia -Acciones socio-ambientales con la comunidad Altos de la Estancia -Observatorio de sostenibilidad de hábitat -Plan parcial y recuperación morfológica en zona de expansión de canteras -Concertación de pactos de borde en UPZ colindantes a la estructura ecológica principal. <p>Adicionalmente se llegó a los siguientes resultados:</p> <ul style="list-style-type: none"> - Control y regulación del crecimiento de la ciudad - Mitigación del accionar de urbanizadores ilegales en predios afectados por riesgo, zonas rurales y áreas protegidas de la ciudad. - Promoción de procesos sociales de reconocimiento y apropiación territorial. - Protección y manejo de ecosistemas y recuperación de áreas naturales y urbanas. - Generación de procesos de participación de las comunidades en los aspectos ambientales 	<p>Con la ejecución de este componente se fortaleció la coordinación y gestión institucional para procesos de mediano y largo plazo en el tema ambiental y de recuperación en zonas degradadas, se recomienda formular una política donde se definan de manera unificada las estrategias de la ciudad para abordar el tema de pactos de borde, donde se generen planes de incentivos para los pobladores que aporten su tiempo y fuerza laboral en las actividades ambientales, así mismo sería importante garantizar el mantenimiento de las obras implementadas a través del PSUB.</p>

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
B.7 Mejoramiento de Vivienda	<ul style="list-style-type: none"> -Asesoría con el objeto de lograr la titulación de predios (mediante proceso directo, o pertenencia, a través del distrito en caso de bienes fiscales o procesos judiciales). -Mayor apropiación y empoderamiento por parte de los ciudadanos. - Asistencia técnica para el mejoramiento y adecuación de condiciones estructurales, arquitectónicas y de habitabilidad de las viviendas de los hogares localizados en las UPZs priorizadas. -Sensibilización a las comunidades sobre la importancia de poseer viviendas bien construidas bajo las normas urbanas y sismo resistentes. 	<p>-El enfoque Integralidad del PMIB que cobijó el componente de Mejoramiento de Viviendas, contribuyó con la reducción de la vulnerabilidad de la ciudad ante desastres naturales (impacto social y fiscal) y promovió la motivación a la inversión en capital físico y social, mediante la titulación de predios para acreditar como propietarios a los hogares de UPZ priorizadas, y acceso a los beneficios que otorga la ciudad legal. Sería recomendable fortalecer la eficacia y eficiencia de estos procesos, que se implementara en el programa la simplificación de los requisitos necesarios para que una familia ingrese en el programa de mejoramiento, así como, agilizar los procesos de expedición de las licencias de construcción y de desembolsos de recursos</p>
C.2. Asistencia Técnica a la Caja de Vivienda Popular	<ul style="list-style-type: none"> -Coordinación de proyectos e implementación de espacios de encuentro entre entidades y comunidad (Núcleos de Participación Ciudadana) - Montaje de un sistema de seguimiento para el Programa de Mejoramiento Integral de Barrios. 	<p>-Con la implementación de este componente, donde la participación de la comunidad en la identificación y diagnóstico de sus necesidades fue la base, se innovó e implementó en un modelo de planeación descentralizado de tipo local y zonal desde los territorios. Se recomienda para futuros proyectos fortalecer y ampliar la participación de la comunidad en la ejecución de los proyectos priorizados, mediante los procesos de planeación participativa y de la concertación para la toma de decisiones. Y de esta manera promover un nuevo escenario para la planeación, que permita que se fortalezca simultáneamente el sentido de pertenencia de los procesos y empoderamiento territorial por parte de la comunidad, con el consiguiente aumento en la credibilidad institucional.</p> <p>-Así mismo se recomienda dar continuidad a la implementación del sistema de seguimiento del PMIB compuesto por una base de datos y su interfaz a un Sistema de Información Geográfica (SIG).</p>
C.3. Asistencia Técnica al DAMA (Secretaría Distrital de Ambiente)	<ul style="list-style-type: none"> -Evaluación de la gestión de la contaminación - Ajuste al programa de control de emisiones en fuentes móviles. - Actualización, ampliación y modernización tecnológica de la red de monitoreo de la contaminación - Evaluación de la Red de Aire - Adquisición de equipos y accesorios para el monitoreo de emisiones por fuentes móviles - Adquisición de una unidad móvil para la medición y monitoreo de calidad del aire - Divulgación, educación y concientización ciudadana en la prevención y control de la contaminación atmosférica 	<p>-Mediante la ejecución de este componente se contribuyó con la elaboración de una herramienta de sostenibilidad ambiental para la ciudad, que condujo simultáneamente a la divulgación, educación y concientización ciudadana en la prevención y control de la contaminación atmosférica. Sería recomendable para darle continuidad a la implementación de esta herramienta, generar una estrategia de largo plazo que supere el concepto remedial de las inversiones (Proyectos cofinanciados) y apoyar financieramente los procesos, así como fortalecer los proyectos que conecten la red social con la dimensión ambiental.</p> <p>-Garantizar el mantenimiento de las obras y acciones ya adelantadas en la Fase I del proyecto y de esta manera, fortalecer las actividades de seguimiento, monitoreo e indicadores para que los proyectos puedan evaluarse con la mayor confiabilidad en sus impactos y servir de base para la toma de decisiones.</p> <ul style="list-style-type: none"> - Ampliar la inversión en calidad de aire especialmente en los temas relacionados con movilidad y manejo de industrias. - Divulgar más ampliamente por algún medio de comunicación masivo los valores de contaminación para el conocimiento público.
C.4. Asistencia Técnica al Departamento de Planeación Distrital (Secretaría Distrital de Planeación)	<ul style="list-style-type: none"> - Formulación de los lineamientos del Plan Maestro de Movilidad - Guías y fichas técnicas para evaluación de elementos del sistema de movilidad - Planes de movilidad sectorial (Plan Centro Histórico) 	<p>-Mediante la implementación de este componente la ciudad avanzó en la mejora de la sostenibilidad y capacidad de planeación del esquema institucional que provee los principales servicios urbanos, se recomienda dar sostenibilidad a la formulación de</p>

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
	<ul style="list-style-type: none"> - Definición de los circuitos de movilidad local (CML) en las 14 UPZ de MIB - Definición de las zonas de reserva viales y afectaciones viales producidas por el subsistema vial de la ciudad. - Formulación Política de reasentamientos - Formulación de política de reconocimiento de mejoramiento de condiciones de vivienda (formalidad urbana) - Guías Urbanísticas de 14 UPZ (reglamentación) - Estudios de análisis de inserción de Bogotá en los mercados Internacionales (TLC) - Promoción de la participación de la ciudad en redes de ciudades (RAC – UCCI) - Reglamentación de las Unidades Locales de Desarrollo Empresarial, ULDES - Formulación del Plan Bogotá como territorio del conocimiento y la agenda regional ciencia y tecnología Bogotá- Cundinamarca- -Actualización cartográfica y creación de base de datos socioeconómica de zonas rurales del D.C. - Transversalidad sectorial de los temas y articulación interinstitucional como elementos importantes en el desarrollo de los diferentes estudios 	<p>las políticas especialmente las relacionadas con el mejoramiento de las condiciones urbanas, como la de reasentamientos, la cual fue formulada pero no se logró concretar como decreto, y de esta manera homogenizar las compensaciones y acciones normativas en esta materia.</p> <ul style="list-style-type: none"> -Aprovechar la formulación de las guías técnicas para la elaboración de indicadores de seguimiento de los proyectos de infraestructura vial <p>Así mismo, se recomienda:</p> <ul style="list-style-type: none"> - Incorporar en los casos que no se haya realizado, los desarrollos incompletos y el PMIB a los planes maestros de equipamientos, en la escala vecinal de los equipamientos de bienestar social, educación pre-escolar, recreación y deportes. - Incorporar los indicadores de seguimiento de los Planes Maestros en la implementación de los planes en lo referente a movilidad, construcción de vías, y espacio público. - Avanzar en los desarrollos conjuntos con otros actores, los regionales en tomo de la agenda regional conjunta, como también con los internacionales dentro de la red de ciudades.
C.7. Asistencia Técnica a SHD y Catastro: Manejo Fiscal y Planeación Urbana	<ul style="list-style-type: none"> -Actualización y modernización catastral mediante reforma institucional. - Incremento progresivo del valor catastral de la ciudad. -Mejora de la gestión fiscal y recaudación de impuestos con el consecuente aumento significativo en los ingresos de la ciudad -Reducción del volumen de trámites catastrales por parte de los ciudadanos. -Se cuenta con un esquema de trabajo por procesos y procedimientos, con una nueva cadena de valor, y una nueva estructura y planta de personal 	<ul style="list-style-type: none"> -En el caso de la UAECD se observó una adecuada planeación desde la formulación del proyecto y una ejecución exitosa, en donde intervinieron diferentes entidades del Distrito entre ellas, la SDH, Catastro y Planeación Distrital, que aunaron esfuerzos técnicos con el fin de dar alcance a la modernización de catastro y la posibilidad de mejorar las finanzas del Distrito, se recomienda generar y sistematizar el modelo de intervención exitosa a partir de la operación para que sea fácilmente difundido a nivel nacional e internacional con el acompañamiento del Banco Mundial. - Fortalecer la efectividad en la ejecución desde la formulación del proyecto, como aspecto central, de esta manera se recomienda para futuros proyectos, desde la fase del diseño tener claros los objetivos y metas, en donde la ejecución haga parte del diseño y formulación del proyecto y esté articulada a las otras fases de la planeación. -El fortalecimiento de la UAECD en procedimientos y procesos relacionados con: tecnología, capacidad institucional y cultura organizacional, como parte del desarrollo de uno de los componentes del Proyecto, tuvo como consecuencia que la entidad se posicionara en cuanto a la modernización y actualización catastral, y que lograra como valor agregado la mejora de las finanzas del Distrito en el corto y mediano plazo. Sería deseable garantizar la sostenibilidad de estos procesos mediante una mayor divulgación, educación y concientización de la ciudadana sobre estos los mismos, incluido el consecuente incremento del valor catastral, con el objetivo de llegar a un sistema de planeación visual, práctico, transparente institucionalizado y sostenible.
C.8. .Asistencia Técnica a Catastro: Fortalecimiento Tecnológico UAECD	<ul style="list-style-type: none"> -Actualización de la información y modernización catastral e incorporación a las bases de datos. -Perfeccionamiento de los procesos catastrales. -Se culminó el diseño e implementación de la Infraestructura de Datos Espaciales de Bogotá IDECA. - Se actualizó la imagen aérea de Bogotá -ortofoto 	<ul style="list-style-type: none"> -En la UAECD se generaron retrasos en contratos relacionados con temas técnicos como la modernización y actualización de la información catastral, se sugiere fortalecer la asistencia técnica por parte del Banco Mundial hacia los entes ejecutores en los casos de la implementación de contratos de difícil previsibilidad o que requieran una exigencia técnica específica y mayor.

COMPONENTES	LOGROS	LECCIONES APRENDIDAS Y RECOMENDACIONES
C.9. Fortalecimiento Técnico IDU	<ul style="list-style-type: none"> -Actualización del inventario y diagnóstico de la red de vías arteriales de Bogotá. -Implementación de un Sistema administrativo. -Actualización de inventarios y diagnósticos de vehículos y puentes peatonales de Bogotá. -Realización de pruebas de resistencia de erosión para materiales usados, como bases para pavimento de concreto hidráulico 	<p>-Uno de los aspectos que se puede presentar como amenaza de este componente es su desfinanciación y respectiva desarticulación en los temas relacionados con la actualización del inventario de vías arteriales y de inventarios y diagnósticos de vehículos. Sería deseable garantizar la sostenibilidad financiera de estos proyectos, mediante la articulación de estos procesos en las políticas distritales de movilidad, con énfasis en el mantenimiento de la malla vial.</p>

B. Highlights of the World Bank’s Technical Assistance

The borrower’s ICR report highlights the following benefits derived from the WB technical assistance to public entities involved in the execution of the program:

1. Visibility of the Program

The Project supported the contracting of works for the construction of the Av. Suba BRT Corridor. Activities encompassed design and construction of pavements. The borrower received a permanent support from the Bank team in the procurement and technical processes that led to the contracting of the works, strengthening inter-institutional coordination between Bogota agencies.

2. Specialized Technical Assistance to Implementing Agencies

A specialized technical assistance program was made available in the shape of a pool of renowned experts. The support covered technical, legal, contractual and financial matters related to the project during its monitoring and implementation stages. IDU also had the support of specialists in road inventory management until the end of the project. Bank specialist Rodrigo Archondo accompanied IDU in presenting the results of road inventory programs.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

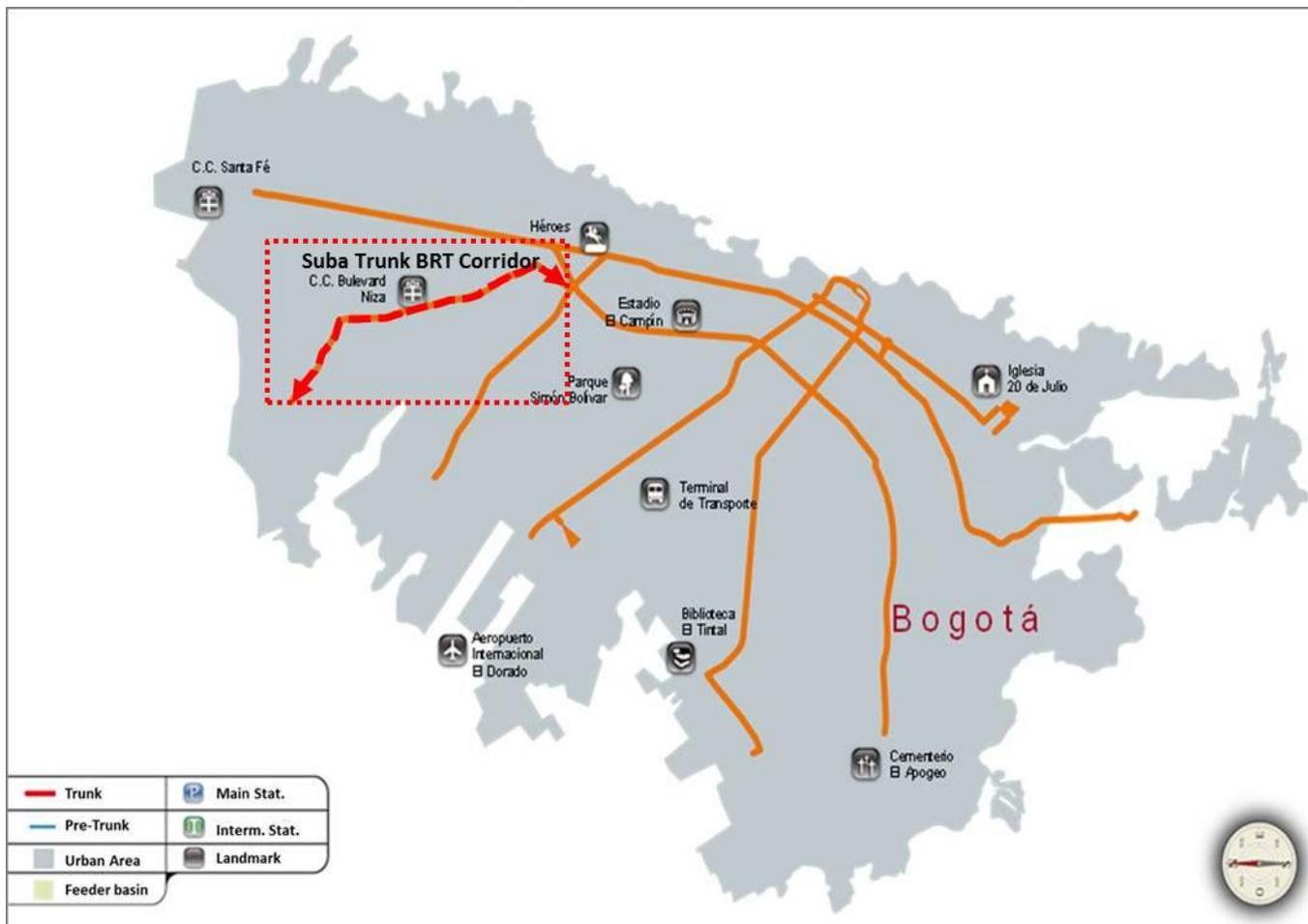
Not Applicable

Annex 9. List of Supporting Documents (in alphabetical order)

1. Aide Memoirs for Project Supervision missions 2003-2014; available [here](#).
2. EMBARQ, Centro de Transporte Sostenible del Instituto de Recursos Mundiales, WRI. Evaluación Ex-Post Sistema de Transporte Masivo de Bogotá, Fases I y II; Presented to DNP. Bogota, November 27 2009.
3. Empresa de Acueducto y Alcantarillado de Bogotá E.S.P. Revision Anual, January 2006. Available [here](#).
4. Ex-post Evaluation of Bogota Urban Services Project, elaborated by IDU, commissioned in November 2007 and developed by the consulting Consortium C&M – Consultores DG, June 2008;
5. Inspection Panel, Notice of Registration No. 51351, Bogota Urban Services Project, October 31, 2007
6. Interviews with the Secretaria de Hacienda and Implementing Agencies: Instituto de Desarrollo Urbano; Secretaria de Movilidad
7. Mendieta, Juan Carlos & Perdomo. Especificación y estimación de un modelo de precios hedónico espacial para evaluar el impacto de Transmilenio sobre el valor de la propiedad en Bogotá. Universidad de los Andes, Documento CEDE 2007-23, October 2007; Available [here](#).
8. OPRC Case Recommendation and Review Report, October 6, 2010
9. Project Appraisal Document on a Proposed Loan in the Amount of USD 100 million to The Capital District of Bogota with the guarantee of the Republic of Colombia for the Bogota Urban Services Project, February 2003; available [here](#).
10. Project Implementation Status Reports (24 sequences); available [here](#).
11. Project Paper on a Proposed Additional Financing Loan in the amount of USD 30 million to The Capital District of Bogota with the guarantee of the Republic of Colombia for the Bogota Urban Services Project, October 2008; available [here](#).
12. *Red de Ciudades Como Vamos: Encuesta de Percepción de la Red Cómo Vamos*, comparative survey reports for Bogota for the years 1998-2007, and individual summary reports for the years 2008-2013 Ipsos Napoleón Franco, 1998-2013
13. Restructuring Papers for the Additional Finance Loan: 2011, 2012; available [here](#).
14. Secretaría Distrital de Hacienda, Dirección de Deuda y Crédito Público. Informe Final de Cierre, Préstamo Servicios Urbanos para Bogotá, December 14, 2014.

MAPS

Bogotá (BRT: Transmilenio)



Bogota Neighborhood Upgrading Program (Planning Zones)

