Implementing a Subnational Results-Oriented Management and Budgeting System

Lessons from Medellín, Colombia

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### ABBREVIATIONS

<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>BPIN</td>
<td>National Investment Projects and Programs Bank</td>
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<tr>
<td>CO</td>
<td>Comptroller’s Office</td>
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<td>DNP</td>
<td>National Planning Department</td>
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<td>GIS</td>
<td>Geographic Information System</td>
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<td>HDS</td>
<td>Human Development Index</td>
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<td>HS</td>
<td>Health Secretariat</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
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<td>MCV</td>
<td><em>Medellín Cómo Vamos</em></td>
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<td>MDP</td>
<td>Municipal Development Plan</td>
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<td>MTEF</td>
<td>Medium-Term Expenditure Framework</td>
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<td>RoB</td>
<td>Results-oriented budgeting</td>
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<td>RoM</td>
<td>Results-oriented monitoring</td>
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<tr>
<td>SINERGIA</td>
<td><em>Sistema Nacional de Evaluación y Gestión por Resultados</em> (National Results-Based Management and Evaluation System)</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VC</td>
<td><em>Veeduría Ciudadana al Plan de Desarrollo Municipal</em></td>
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1. Introduction

After a century of political centralization in Colombia, the first public election of city mayors in 1986\(^1\) began a decentralization trend, which was later reinforced by a constitutional reform in 1991. Subnational governments (departments and municipalities) were made responsible for the planning and management of social and economic development in their jurisdictions. Administrative and political reforms were accompanied by fiscal decentralization, including the transfer of central government revenues. Since 1991 the growth of fiscal transfers has accelerated. Departments and municipalities are now responsible for public health, education, water supply, and sanitation expenditures through earmarked transfers. Out of the total amount of central government expenditures (21.8 percent of GDP in 2008) almost one-quarter represent regional transfers (5 percent of GDP), which finance half of all regional expenditures (10.2 percent of GDP).\(^2\) In terms of spending, regional government is almost half the size of the central government.

The 1991 constitutional reform also strengthened the planning stage of public policies. Since then, every new administration (both at the national and subnational level) is required to prepare a development plan, discuss it with civil society, and present it to the legislature for approval. The development plan includes policy objectives for the four-year constitutional term and an investment plan for achieving the objectives. Budgeting and planning are integrated during the formulation process.\(^3\)

Accomplishment of the planned objectives at the national and subnational levels was made mandatory by law, and failure to do so could lead to the forced resignation of governors.\(^4\) The constitutional reform set up the National Planning Department (DNP) as the government agency in charge of design, strategic guidance, and monitoring and evaluation (M&E) of the National Development Plan, complementing its responsibility in the allocation of investment resources. Subsequently, a national M&E system (SINERGIA) was created in 1994 and the DNP was put in charge of it. However, the long legacy of centralization in Colombia could not be reversed solely by the establishment of formal rules, which are a necessary but insufficient condition for good performance. Limited institutional capacity and weak governance mechanisms resulted, among other things, in excessive subnational indebtedness, forcing the national government to pass several reforms to control subnational expenditures and debt during the second half of the 1990s. The 1999 economic crisis forced structural reforms, which reduced the increasing rate of transfers and introduced efficiency criteria for allocating transfers among regions according

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\(^1\) Constitutional Amendment 01 of 1986 and Law 78 of the same year.

\(^2\) Colombia Ministry of Finance database.

\(^3\) Decree 111 of 1996 set out the Statutory Budget Law, responding to the constitutional mandate of establishing planning as a budgeting principle.

\(^4\) Law 131 of 1994. Article 1 of this law defined programmatic vote as “...a participatory mechanism through which voters impose elected officials the mandatory accomplishment of their government program presented as an integral part of their proposal as candidates.”
to capitation measures. A new set of fiscal rules was subsequently implemented.\textsuperscript{5} This trend was reinforced with a Fiscal Responsibility Law in 2003 (Law 819) and Decree 4730 in 2005, which introduced Medium-Term Fiscal and Expenditure Frameworks.

These efforts and reforms to the budget process—aimed at balancing discipline, efficiency, and resource allocation—continue to fall short in terms of performance. Since 1991, even though different agencies have provided technical assistance to subnational governments, institutional development at this level is still a major issue and demands have continued for long-term systematic strengthening. Although since the 1991 constitutional reform social expenditures have increased substantially, results have not increased at the same pace. Moreover, accountability and enforcement mechanisms to ensure quality delivery of services and promote effective citizen participation in development need to be reinforced.\textsuperscript{6} Overall, it seems that the lack of a results-oriented management approach has been one of the main reasons for the general situation in subnational governments.

With this in mind, the DNP decided to initiate a strategy to transfer SINERGIA’s best practices to the subnational level in 2004. It must be stressed that SINERGIA concentrated its efforts at the national level during its first years of operation. In fact, SINERGIA had only begun in 2002 to implement a functional M&E system for the National Development Plan (Gómez 2008).

Considering the importance of validating and replicating the national approach, the DNP decided to implement pilot subnational exercises. An agreement was made with the municipality of Medellín, based on its willingness to adopt results-oriented tools. Other aspects, such as its fiscal discipline, relative size, and institutional capacity were also taken into account in its selection to initiate the process. A technical assistance project was designed to reform planning and budget practices and institutions (rules, legislation, etc.) as well as to promote accountability. The project followed a supply- and demand-side strategy, based on information provided by a results-oriented budgeting system (RoB), which would support allocation decisions.

The RoB was conceived as part of a results-oriented management (RoM) approach being developed by the City Mayor’s Office. RoB would generate performance information to support the decision-making process during planning and implementation of public policies. In this sense, it would define an indirect linkage between financial resources and results by using targets to inform budget decisions, together with other information, that is, indirect RoB (OECD, 2004).

\textsuperscript{5} Among them, one of the most important is Law 617 of 2000, which avoids excessive current expenditures at the subnational level. Also Law 358 of 1997 (known as the Red Light Law) aimed to control current and medium-term indebtedness.

\textsuperscript{6} See Rojas 2003.
RoM was to include RoB as one of the main components of a governing-for-results plan in which transparency, accountability, community participation, quality delivery, equity, and effectiveness were central attributes of government interventions. Its implementation would aim to identify and use RoB tools to look for efficiency in the achievement of public targets. This meant a shift in the approach of local bureaucracies. Overall, it would promote better targeting and quality of public goods and services as a consequence of interaction between the supply side (executive power) and the demand side (civil society, legislative power, and control agencies).

The purpose of this paper is to describe the budget process reform implemented in Medellín, and to analyze its actual performance and evaluate its success. The reform is changing the way public resources are allocated and executed, while gradually institutionalizing supply and demand-side practices beyond the government’s political cycles.

This paper describes and analyzes how the RoB was designed and implemented, and the achievements of the system to date, in terms of resource allocation and the policy-making process. The following section describes the context of Medellín: political and economic trends, and the objectives of the budget reform. The third section presents the state of the budget process in Medellín as it was diagnosed before implementation. Section four describes the implementation process of the system, and section five addresses its major achievements. A final section includes some policy recommendations, which can be divided into two parts: (i) recommendations for consolidating the system as a main support tool of a RoM approach, and (ii) recommendations for replicating the system in other municipalities and subnational governments.

The authors acknowledge the support provided by representatives from the Medellín Municipality, Municipal Council, Comptroller’s Office, and Medellín Como Vamos Program. Their interviews and the information they provided were valuable inputs for this paper. Special thanks to Angela Arango, Head of the Municipal Information Office (Metro Información) where the system operates; Alexandra Peláez, Municipal Development Plan Coordinator; Martha Lasso, Deputy Secretary of Finance, Rodrigo Toro, Chief of the Financial Planning Unit, and Ana María Arango, Deputy Director of the Municipal Planning Department.
2. The Context

Medellín is the second largest city in Colombia (after Bogotá), in terms of population—with more than 2.3 million inhabitants—and GDP. Medellín has overcome a lamentable record of violence from previous decades and, today, the city is a national example of development and social diversity. For instance, the homicide rate decreased from a peak of 381 (per 100,000 residents) in 1991 to 28 in 2007. The Quality of Life Index increased steadily from 68 to 83.7 between 2001 and 2007, and the Human Development Index increased from 79.3 in 2004, to 80.3 in 2006 (Comptroller’s Office of Medellín 2008). In summary, different measures of public welfare show improvements in Medellín in recent years.

Progress has been seen in Medellín’s fiscal policy too. The National Planning Department, which is also in charge of the allocation and distribution of transfers among regions, chose Medellín as number one in terms of fiscal performance in 2006, as compared with other department capitals, and number 10 among the 1,098 Colombian municipalities, up dramatically from number 279 in 2000. Medellín’s public debt decreased from 41 percent of total revenues in 2000, to 10.2 percent in 2006. In welfare measures too, Medellín’s fiscal policy shows improvements. The adoption of a political model that favors a results-oriented approach has contributed to this trend since 2004. Mayor Sergio Fajardo, an independent candidate, was elected as a reformer for the period 2004–2007, without getting a majority in the Municipal Council. Mayor Fajardo prepared a Municipal Development Plan (MDP) for his administration, based on development objectives related to the UNDP Human Integral Development and Quality of Life Indexes.

It is within this context in Medellín and at the central government level that a results-oriented budgeting system was implemented and continues to operate. The RoB takes into account the allocation of public resources according to policy priorities, ensuring execution under the criteria of effectiveness, efficiency, and equity. On the one hand, the system generates systematic information about the allocation and execution of public resources in order to accomplish set goals, and provides inputs for performance analysis, studies, and evaluations. On the other hand, the system monitors performance to provide the administration and demand-side users (civil society, Municipal Council, Comptroller’s Office, and central government agencies) with high-quality, reliable, and timely information.

The system solves information asymmetry problems within the administration and between public agencies and constituencies. For the administration, it improves interactions among the Finance Secretariat and Municipal Planning Department, agencies in charge of resource allocation, and line-item agencies in charge of achieving MDP goals through budget

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7 Both indexes rank from 0 to 100; higher numbers represent better conditions.
execution—the Sector Secretariats. For the public agencies, information generated by the
system allows the Mayor’s Office to report to the Municipal Council (the legislative
power), the Comptroller’s Office, and to constituencies about the use of public resources.
Performance information supports and orders the policy-making process between
the Mayor’s Office and the Municipal Council, aligning allocations to explicit MDP priorities.
Reporting to the public allows citizens to evaluate the administration with better
information and knowledge, and to participate in public affairs. Thus, the system also
improves transparency and promotes democratic governance, through participation and
social control in the use of public resources. In sum, the system corresponds to incentives to
solve information asymmetries as well as to generate and use systematic information to
monitor fiscal performance.

The reform process can be divided into two phases: (i) design and initial operation, and (ii)
consolidation. The first phase constituted the core of the reform and took almost 30 months,
from June 2005 to December 2007. This phase started with a rapid appraisal which served
to help create a “road map.” The road map logically revised the alignment of MDP goals
and objectives with the investment projects presented in the annual budget, in order to
adopt the necessary changes and to design a portfolio of performance indicators as part of
the first RoB formulation and execution. Institutional arrangements, reporting,
accountability practices, sector planning, and training of demand-side stakeholders
concluded this phase.

The second phase started in 2008 with a new government, which endorsed the RoB system
and formulated a results-oriented MDP for the 2008–2011 political term. Active demand-
side stakeholders participated in this process, requiring clearly defined priorities, target
setting, and continuity of the RoB, as necessary features for transparency and good
government practices. The incoming administration committed to continue the RoM
approach as a main feature of its government program and MDP.9 Thus, results-oriented
annual budgets were formulated and implemented for fiscal year 2009, and the 2010 RoB
formulation is currently under way. Institutional arrangements have been strengthened at
the Mayor’s Office and new rules have been introduced by the Comptroller’s Office, which
adopted the RoB as an official means to conduct external audits. The Municipal Council is
undertaking close performance monitoring in order to exert political control over MDP
achievement and corresponding annual budget approval and execution. Similarly, civil
society is emphasizing control over quality delivery and adequate targeting of public
expenditure. Altogether, dynamic supply- and demand-side interaction is promoting RoB
use, strengthening appropriation, and improving standards.

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9 See Medellín Municipal Planning Department 2008 (especially the parts on “Foundations” and
“Methodological Approach”).
3. Initial Diagnosis

3.1 RoB as Part of a Results-Oriented Management Approach

A main feature of the Medellin RoB experience has been its inception within a RoM approach. RoM was adopted by the City Mayor’s Office in 2004 as one of its strategic features.\(^{10}\) Since then, the approach has been guided by a set of governing principles, among others: transparency, accountability, promotion of community participation, and development effectiveness.

The Municipal Development Plan 2004–2007 was seen as the road map that would focus public intervention, demonstrating the political will of the administration to accomplish a constitutional mandate. Its main goals were (and continue to be) to foster integral human development and improve quality of life, especially for the low-income population. The MDP defined a set of sector programs to achieve these goals. The UNDP Human Development Index and Quality of Life Index were set as the main impact measures and annual city surveys were set to track progress.

The administration also introduced instruments to ensure open scrutiny and social control of public investment, thus providing feedback on the quality of services and customer satisfaction. For the first time, participation extended to local communities through participatory budgeting of community driven-projects, which complemented city priorities as defined in the MDP. A communication strategy was launched, for the open communication of public actions, through different channels (radio, television, printed media, town hall meetings) together with annual accountability MDP reporting events to the Municipal Council, civil society, and Comptroller’s Office.

Fiscal discipline was another characteristic of the RoM approach adopted by the administration. The Finance Secretariat positioned the Medium-Term Fiscal Framework as the main tool for determining viable income scenarios and expenditure ceilings.\(^{11}\) In order to raise income levels, a policy was developed to widen the tax base, modernize the accounting system, and reduce evasion, based on promotion of public confidence in the administration.

In this enabling context, RoB offered a set of instruments and practices that would strengthen the city administration’s technical capacity to exert its political will and its RoM approach. In fact, the administration’s voluntary decision to undertake the RoB in 2005 was founded on its direct usefulness to the governing model.

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\(^{10}\) Sergio Fajardo was elected Mayor of Medellin for the constitutional period 2004–2007.

\(^{11}\) Following the Fiscal Responsibility Law (Law 819 of 2003).
3.2 Initial Rapid Appraisal

A first step in the implementation of RoB was a rapid diagnosis of the administration’s capacity on planning, budgeting, and monitoring and evaluation (M&E). The demand-side was also assessed in terms of capacity, demand for performance information, and potential role in the operation of the system. The purpose of this appraisal was to determine the critical areas of implementation, both on the supply and demand sides, and to agree on a road map with the administration and demand-side stakeholders.

It was also important in the implementation phase to clearly understand the existing budget process so the RoB system could be adjusted during the different phases of planning, programming, discussion and approval, execution, and M&E.

**Budgetary rules and practices**

Medellín’s budgetary process is governed by national laws, namely the Statutory Budget Law. This law was revised in 1989 and further amended in 1996 (Decree 111) to support fiscal discipline and to establish planning and efficient execution as budgeting principles. The reform gave more autonomy to line-item agencies (Sector Secretariats) to program the execution of their policies on an annual basis. It also created a national system for investment projects, known as the National Investment Projects and Programs Bank (BPIN). The purpose of BPIN was to rationalize the project cycle by emphasizing internal consistency in formulation and adopting ex-ante evaluation as a selection mechanism of alternatives to be funded via investment budget.

However, it is worthwhile to note that Medellín’s annual budget process was a financial process designed to identify the amount of public resources to be spent in the fiscal year. The connection with outputs and outcomes (e.g., the number of houses to be built in the Social Interest Habitat program, or the change in morbidity rates due to improved water quality in an urbanization plan) is not clear. In fact, there is no explicit discussion of it in Colombia’s fiscal rules. Although the statutory budget and the planning laws state the need to align planning and budgeting, the specific means to do so, or the scope of the stated alignment, are not made explicit. Consequently, this became a main objective of the reform in terms of improved budgetary practices.

The Medellín municipality operated a local system for investment projects, emulating BPIN. As in the national case, however, investment decisions relied on specific aspects of project consistency, not on stated rules and performance measures, which would ensure the projects contributed to MDP goals and targets. Moreover, the system did not monitor project execution.

Annual investment budget allocations were based on action plans, which were drawn up for each investment project (see figure 1). One direct consequence was that these action
plans—developed by each Sector Secretariat—were not aligned with specific targets in the MDP. Budgeting decisions were made in response to demands expressed in the action plans, without systematic use of any performance information on observed trends or costs. The links among annual budgeting, target setting, and the four-year MDP needed to be strengthened.

Overall, the contribution of investment projects to policy goals was discretional, causing another major limitation that the RoB needed to address.

**Figure 1. Planning and Budgeting Instruments**

- **Government Program (GP):** Political candidates must submit a proposal, stating the goals and priorities to be addressed in the MDP during their administration if elected. The GP is a requisite for official candidacy and is released to the public for debate during the campaign.

- **Municipal Development Plan (MDP):** Four-year planning instrument that guides public interventions in the municipality during the political term. It contains the government’s goals, policies, programs, and investment projects. Fulfillment of the MDP is mandatory, according to Law 152 of 1994.

- **Indicative Plan:** Four-year planning instrument, derived from the MDP, to define and monitor specific targets. It presents the goals and targets to be achieved annually and by the end of the term. Indicative plans were developed by SINERGIA to facilitate MDP performance monitoring.

- **Action Plans:** Annual planning instrument for target formulation based on investment projects. Every line-item secretariat prepares one subject to the approved annual budget constraint. In principle, Action Plans should contribute logically to the Indicative Plan goals.

- **Multiannual Investment Plan:** Four-year plan that contains the investment resources that will be assigned to MDP programs.

- **Investment Annual Operation Plan:** Annual financial instrument based on the annual budget that consolidates Action Plans and the investment projects contained in them.

- **Medium-Term Fiscal Framework (MTFF):** Ten-year forward-rolling instrument that determines the financial viability of the MDP and annual budgets. It projects available resources for investment and recurrent expenditure, as well as debt service and liabilities.

- **Investment Projects:** Set of ordered joint activities aimed at achieving explicit and coherent goals in a specific time frame. Projects generate goods and services to satisfy needs, making the best available use of scarce resources.

*Source: Authors.*
Planning and M&E

The administration defined and presented a Municipal Development Plan (MDP) to the Municipal Council, in accordance with the Statutory Planning Law (Law 152 of 1994). The MDP included public policy goals for the mayor’s term and an investment plan to implement it.

A wide set of targets and performance indicators were developed, especially for output and activity levels. These indicators did not follow logical outcome sequence, which would have specified the contribution of activities to outputs and ultimately to any intended effects on behavior or welfare. Although the MDP represented a pioneering effort—in terms of an explicit government commitment to stated priorities and performance targets—a rigid requirement was introduced by the inclusion of exhaustive and specific targets for activity levels. Furthermore, achievement of these activity levels was mandatory and thus necessitated tracking.

The quality of the set indicators was also analyzed, to identify anything that needed revising, including new outcome level indicators, improved definitions, or measures and baseline information. Institutional arrangements had to be set, in terms of clearly defined roles and activities for data collection, analysis, and reporting, as well as assigned performance responsibilities at each secretariat. Consequently, staff skills in indicators management needed to be improved and RoB institutional procedures had to be developed.

In terms of technical support tools, the administration was (in 2005) adapting Enterprise Resource Planning SAP software. This job required development efforts to make a typical private business tool operational in a complex multiservice public organization. Specifically, a project module was needed to enable systematic performance monitoring of MDP targets and to facilitate the alignment of projects contained in action plans with MDP goals. Additionally, physical monitoring needed to be integrated into the SAP financial module to obtain an integrated view of performance levels. Monitoring was mainly a manual process which was undertaken at the project level in each secretariat. The Municipal Planning Department aggregated information from action plan reports in an enormous, procedural, but unsystematic effort.

Finally, evaluation focused on system dynamics models, which assessed the contribution of government interventions to Human Development and Quality of Life Indexes. These were complemented by annual city surveys to track progress and analyze the targeting of expenditure.

Institutional capacity

In general terms, administrative staff at the technical level were trained in planning, budgeting, activity-based monitoring, project design and supervision. Line-item secretaries
and directors were more interested in RoM tools, mainly because most of them had a private sector background.

Institutional assignment for developing the RoB centered on a small ad-hoc office in charge of MDP monitoring and progress reporting. This office operated separately from three central agencies: the Investment Projects Unit, the Information Office (Metro Información) at the Municipal Planning Department, and the Finance Secretariat. The Investment Projects Unit was responsible for the investment budget cycle for all the secretariats and the structuring of the respective annual budgets. Metro Información was in charge of information policy, systems, and activities that supported public management. The Finance Secretariat coordinated annual budget formulation in accordance with the mid-term fiscal framework and budgetary restrictions. The secretariat also presented the budget to the Municipal Council and supervised overall financial implementation. Joint operation of these four agencies was needed to establish a successful RoB system.

**Demand-side capacity**

On the demand-side, the Comptroller’s Office, which is responsible for fiscal control and management auditing, favored the identification of targets in the MDP as a positive starting point for assessing implementation effectiveness based on performance indicators. Similarly the, Municipal Council, as the legislative power responsible of approving the annual budget and exerting political control over the Executive, was expectant on the generation of performance information that would facilitate budget analysis in correspondence with set goals. At this stage, this responsibility relied on on-line budgeting information without a systematic report on observed trends and set targets.

At the time, a new civil society nongovernmental organization, “Medellín Como Vamos”—made up of the chamber of commerce and leading local universities and newspapers—was created as an independent body to conduct specific studies, perception surveys, and evaluations of public programs and projects, and to track the progress of key development indicators. Among other nongovernmental initiatives, a network of citizen surveillance organizations (Red de Veedurías Ciudadanas al Plan de Desarrollo) had more than a decade of success in exerting social pressure in matters of governmental management. Such actions, however, relied on the willingness of public officials to provide quality information and support, through open mechanisms, to promote awareness and community participation. Public disclosure of performance information had been discretionary and lacked a systematic basis to facilitate independent analysis and verification.

Consequently, initial implementation of the RoB focused on identifying limitations to improve technical skills and to develop the institutional arrangements and technical support tools needed for the application of RoM principles.
4. System Components and Implementation

4.1 Strategic Approach

From a theoretical standpoint, the system aims to solve problems of information asymmetry. These asymmetries arise when a principal hires an agent to accomplish a task but the principal and the agent have different interests. For instance, when budget decisions are made, the agency that allocates resources (the principal) is interested in (i) fiscal discipline, and (ii) MDP goals, while the Sector Secretariat (the agent) could be interested in its sector’s growth. Another case of asymmetry happens when the voter (the principal) elects a mayor (the agent) to accomplish the policies proposed in a campaign, but once in power, the mayor could have other priorities for different interest groups. Moreover, the agent has more information than the principal about ways to accomplish the task.

These asymmetries could be corrected by the introduction of incentives for the agent to accomplish what the principal hired the agent to do. One type of incentives is for the principal to monitor the agent’s performance to see if the agent is accomplishing what was agreed in the contract.\(^{12}\)

The Mayor’s Office, the Finance Secretariat and the Municipal Planning Department are in charge of allocating public resources to Sector Secretariats. In particular, the Finance Secretariat allocates current expenditures, while the Municipal Planning Department allocates investment resources. In addition, the Municipal Planning Department is in charge of preparing the Municipal Development Plan.\(^{13}\) These two principals—the Finance Secretariat and Municipal Planning Department—are in charge of monitoring the performances of Sector Secretariats for fiscal discipline and, even more important, for achievement of MDP goals. Similarly, voters hold the elected mayor responsible for accomplishing public policies. Voters can also be represented by the members of the Municipal Council. In this case, the multiple principals (voters) need information to evaluate the mayor’s performance in office, and this performance could be monitored by the accomplishment of MDP goals.

The objective of the RoB system is to generate information to inform the principals about the use of public resources with regard to the MDP goals—in financial terms but also what performance is needed to achieve the goals. This kind of information would solve the problems of asymmetric information and generate inputs for the policy-making process.

However, determining a way to implement the system, given this division between actors, is not trivial. Incentives and political economy factors affect the implementation and, in the

\(^{12}\) For a discussion of the relevant theory, see Dixit 2004, and for a case study in Colombia, see Olivera 2008.

\(^{13}\) It is worthwhile to note that the institutional separation between current and capital expenditures in Medellin is the same as what exists at the central government level between the Finance Minister and the National Planning Department.
end, the sustainability of a RoB system. Agents, for the sake of their own interests, may not want to generate relevant information for the policy-making process. Principals need to find the right incentives. Implementation can be done following a top-down strategy, where the principals—the Finance Secretariat and Municipal Planning Department—introduce monitoring practices and demand information from Sector Secretariats. The implementation can also be done following a bottom-up strategy, where the system is first implemented in Sector Secretariats, to generate information to measure their own performance, and then sent to the principals.

Both strategies are valid and each has pros and cons. The top-down strategy is valid if (i) there exists a hierarchical relationship between the principals and the agents for the decision-making process, and (ii) if there exists a way to verify the information generated by the line-item agencies. The bottom-top strategy is more effective if there is no way to verify the information, and it is necessary to demonstrate to the Sector Secretariats that the information is important for strengthening their relationship with the principals in terms of demanding public resources. If the system is implemented in several Sector Secretariats simultaneously, having good competition among them, with information, could be a better way to implement the system.14

After the initial appraisal, the top-down approach was selected. A hierarchical relationship was clearly established in the administration. The mayor presented this reform as a government priority in cabinet meetings and endorsed the Finance Secretariat and the Municipal Planning Department as the leading entities responsible for implementing the RoB system. From the start, a coordination unit was created with a joint team from the Finance Secretariat and the Municipal Planning Department.

In summary, political will was, first, a necessary condition for implementation and one of the main reasons to adopt a top-down strategy. Second, given that the Mayor wanted to monitor performance toward MDP goals, it was necessary to implement the system by strengthening the office in charge of this task, the Municipal Planning Department. Third, given the close relationship between Finance Secretariat and Municipal Planning Department, and their hierarchical relationship with line-item Sector Secretariats, this strategy was the best one.

14 These two types of strategies are related in the literature about reforms. The first approach is related to a “big-bang” strategy, where the Finance Secretariat and the Planning Department decide to implement the system in all the line-item agencies. The second approach is related to a sequential strategy, where the Finance Secretariat and the Planning Department select some line-item agencies in which to implement the system and then replicate it in other agencies.
4.2 Implementation Road Map: Phase 1

Rapid appraisal findings were discussed with the administration and used as the main input toward designing a road map for RoB design and initial operations. The road map was agreed and endorsed by the steering committee activating, the first phase of the RoB system. This phase began in mid-2005 and was designed for a period of two and a half years until the end of 2007. Since 2008, a second phase has been led by the administration, following a consolidation trend.

The design and initial operations were undertaken with technical assistance from SINERGIA at the National Planning Department (DNP), and with financial support from the United States Agency for International Development (USAID). USAID supported the process until the end of 2006 and the NPD continued until the end of this phase, funded by a World Bank country loan for public administration modernization. The local administration has co-financed the system since its beginning. Table 1 presents the overall approximate costs of the first phase. The local administration covered 53 percent of the total costs of this phase, which subsequently grew until, by 2007, costs had surpassed external sources. During the first phase, there was high concentration on external support and technical assistance. Consequently, a qualified local team was assembled and is currently responsible for the operations.

It is worth noting that during this phase technical assistance was as important as financial support. On the one hand, the transfer of budget best practices needs a team of experts on M&E to assist with implementation at the local level. On the other hand, local funding is a sign of commitment from local authorities to implement the system.

Table 1: First Phase Estimated Costs
(in U.S. dollars)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USAID</td>
<td>Local</td>
<td>USAID</td>
<td>Local</td>
</tr>
<tr>
<td>Technical assistance and software development</td>
<td>$ 50,000</td>
<td>$ 40,935</td>
<td>$ 100,000</td>
<td>$ 99,341</td>
</tr>
<tr>
<td>Reports and dissemination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops and training</td>
<td>$ 25,000</td>
<td>$ 7,327</td>
<td>$ 50,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL</strong></td>
<td><strong>$ 75,000</strong></td>
<td><strong>$ 55,241</strong></td>
<td><strong>$ 150,000</strong></td>
<td><strong>$ 124,838</strong></td>
</tr>
</tbody>
</table>

Source: Banco de Proyectos de Inversión de Medellín; USAID Project Document; Authors’ calculations.
The length of the first phase was determined based on international experiences, which demonstrates that design and initial implementation of this type of reform takes several annual budget cycles, especially to test and adapt the system, to achieve basic capacities and, to initiate appropriation from the institutions and demand-side stakeholders.\textsuperscript{15} In particular, for this project the RoB should be connected to the traditional budget process which takes almost three-quarters of a year to formulate (in the Mayor’s Office), discuss, and approve, with the council, and one year to execute.

The first phase started in mid-2005 with a rapid appraisal, which served to define the priority areas of the road map. The priority areas were: (i) alignment of the MDP and investment projects; (ii) development of a portfolio of performance indicators; (iii) RoB formulation and performance monitoring; (iv) definition of RoM institutional arrangements; (v) definition of reports and promotion of results-oriented accountability practices, and; (vi) strengthening of staff and demand-side stakeholder skills in results-oriented management and budgeting (see figure 2).

An \textit{ad-hoc} coordination unit within the Finance Secretariat and the Municipal Planning Department was set up, with staff members skilled in planning and budgeting. Initial training, provided by the DNP–USAID external team was concentrated in this unit, which rapidly became the nucleus of the RoB system and staff acted as leaders or champions\textsuperscript{16} of the implementation process. A steering committee was also created, led by the Planning Director and Finance Secretary, which was to guide the overall progress (figure 2, step 2).

\textsuperscript{15} See, for example, Wilson 1989 and Hatry 2006.

\textsuperscript{16} The term “champions” refers to the group of officials from the local administration, which were selected as core or leading agents for RoB implementation. They were professionals with direct responsibilities on planning, budgeting, and monitoring, who also demonstrated a willingness to be part of the lead group on a voluntary basis. As mentioned, training efforts focused on these individuals, starting with selected officials from the Planning Department and Finance Secretariat, gradually expanding to their peers in the line-item secretariats. The latter were gradually empowered to lead the process and train a third group of “champions” in their respective areas, in order to build a “critical mass of change” in the administration and further implement the RoB.
The third step of the process took place between the last quarter of 2005 and first quarter of 2006, aligning the MDP and investment projects through annual action plans. The rapid appraisal showed a lack of consistency between a significant percentage of investment projects and MDP goals and targets. This occurred despite the fact that the MDP should include, at least formally, a conceptual part describing public policies that are to be achieved during the mayor’s term, and a financial part—the Multiannual Investment Plan—showing the investment projects used to achieve the policy goals. The solution implied, for the ongoing budget cycle, a revision of projects, targets, and initial design of performance indicators. Consequently, to formulate the first RoB for 2007, new projects were identified and central changes were made in ongoing projects.

This advanced the process to the next step, in which a portfolio of MDP performance indicators was developed. Previous inclusion of process indicators in the MDP forced adaptation of the set to have it comply with council requirements. However, new output and outcome indicators were included to monitor the performance of strategic lines.

To develop the portfolio, new champions were identified in each Sector Secretariat that had proven capacities in budgeting and planning and the willingness to participate actively in the implementation. A second round of applied training began with this group. Sector champions formed a network and, in turn, led task teams in their respective sector in a
strategy of “learning-by-doing.” The coordination unit acted as a focal point to channel information, technical assistance, and guidance for the process as a whole.

To define indicators, a set of technical tables, by agency and by sector, was set up. Managers and professional staff from each agency, as well as staff from the Municipal Planning Department and the Finance Secretariat, participated in creating these tables. An additional exercise included the revision of the mission of each agency and sector—in terms of goods and services delivery—in order to define mission goals and monitor indicators in the medium term.

The portfolio was developed in approximately seven months, in time to be included in the 2007 RoB formulation. In less than a year, the initial four members of the coordinating unit had expanded to almost 100 people, from the administrative staff, working as champions of the RoB process.

The portfolio included basic information for each indicator:

- Name and description
- Variables
- Calculating formula
- Location in the MDP structure
- Baseline
- Targets
- Sources and methods of data analysis
- Areas and officials responsible for targets

Baselines received special attention due to data collection limitations. Therefore, data collection schedules were set for every indicator. These required the identification of sampling procedures and the collection instruments to be used. Methods of data analysis were also defined, as well as responsibilities for collection, analysis, and reporting.

Portfolio definition led to the conceptual design of a support tool for performance monitoring. The SAP software was adapted to enable systematic performance monitoring of MDP and project targets, while also facilitating alignment of the projects contained in action plans with MDP goals. Physical monitoring was also integrated with the SAP financial module to obtain a cohesive view of performance levels.

Meanwhile, formulation of the first RoB was under way (step 5). Coordination between the Finance Secretariat and the Municipal Planning Department made this possible, in a joint effort with other secretariats. Performance information started to take a central role in the allocation process and, despite the obvious limitations of a pilot exercise, the formulation process achieved its purpose of aligning investment needs with MDP stated priorities.
A basic outline of institutional arrangements was created through these steps and the arrangements were finally approved by the Finance Secretariat and Municipal Planning Department. Roles and responsibilities were identified throughout the budget cycle in order make RoB standard practice.

At this stage, emphasis shifted to the key demand-side stakeholders, who had high expectations from the RoB progress (step 7). Introductory awareness and training workshops were held with the Municipal Council and Comptroller´s Office to bring staff up to date in the analysis of performance information, as generated by the RoB system. The council welcomed RoB, which they saw as a potentially strong tool of political control over the executive. The administration also understood the system as a strong tool to focus the budget discussion and to gain approval in the council, with technical information aligned to MDP priorities.

Civil society organizations helped to shape the type of reports and information requirements produced by the system. In this sense, the nongovernment organization Medellín Cómo Vamos agreed with the type and quality of performance information generated for its purposes. Subsequently, the information produced was used as inputs in surveys and sector studies.

The system reached a critical juncture in 2007. It marked the first year of effective RoB operations but it was also the last year of the mayor´s term. There was uncertainty about a possible shift in political priorities and governmental approach. Within this scenario the administration decided to boost the RoB system in different ways. It emphasized development of the technological support tool and staff abilities. Accountability mechanisms and public diffusion of results were promoted, employing the performance information generated. Participatory and independent analyses of the MDP were also undertaken and publicly discussed at the municipal level.

An important exercise completed at this stage was mid-term planning for the current period (2008–2011), based on the Medium-Term Expenditure Framework (MTEF). The exercise was set out in the 2008 RoB and provided the basis for MDP formulation for the new administration. The exercise focused on aligning objectives with mission goals for each sector. Secretariats revised their sector plans for the 2008–2011 period in the light of their achievements to date and identified key outcomes. As a consequence, the portfolio of indicators was improved in terms of sources, baselines, costing, and target setting for 2008 and for the four-year period. The Municipal Planning Department, together with the

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17 The Medium-Term Expenditure Framework (MTEF) complements the Medium-Term Fiscal Framework (MTFF). The MTEF, introduced into the fiscal rules in 2005 by the Minister of Finance, distributes the total amount of public resources to different public sectors (e.g., infrastructure, social expenditures) in a manner consistent with the macroeconomic goals as defined by the MTFF (i.e., public debt, primary surplus, inflation target, growth). The MTEF is an exercise which covers the following four-year period but it is reviewed and revised each year, as needed.
Finance Secretariat, coordinated the process and consolidated the 2008 RoB, which was presented to the council as part of the Projected Budget Law.

Finally, a regulation was sanctioned by the Municipal Council which intended to formalize and strengthen the legality of the RoB. Agreement 43 of 2007 provided the guidelines and processes that would be applied later in the formulation of a results-oriented and participatory 2008–2011 MDP. The municipal planning system in which the RoB was included was institutionalized; participatory planning and budgeting were incorporated with the planning system.18

4.3 Implementation Road Map: Phase 2

In 2008 a new four-year political cycle began with the election of Mayor Alonso Salazar. Mayor Salazar had endorsed the RoM approach as a central issue during his campaign and demonstrated his commitment to it once he was in power. This phase can be summarized in seven steps; most of them are currently in progress (see figure 3)

**Figure 3: RoB Phase 2 — Consolidation**

Mayor Salazar led the formulation of a results-oriented MDP for the 2008–2011 constitutional period (step 1). Active demand-side stakeholders participated in this process calling for clearly defined priorities and target setting. Lessons from the initial implementation of RoB were taken into account in setting a logical outcome sequence in the MDP structure. The Municipal Council and civil society representatives played an active role in public discussions and participated in prioritizing goals during the MDP formulation, observing mandatory requirements set by Agreement 43 of 2007.

18 City Council of Medellín, 2007. Municipal Agreement No. 43 of 2007, Chapters 1, 2, and 4.
As soon as the MDP was presented to the Municipal Council for approval, a new round of public discussions and analysis began, centered on the stated goals and targets. Political discussions were framed by the feasibility of meeting targets, considering the available resources; the adequacy of indicators and baselines, and clear citizen approval. The MDP represented a singularly “good practice” by a legislative body in Colombia (step 2).

As Federico Gutiérrez Zuluaga, President of the Municipal Council in 2008, stated:

“...the instruments used to monitor performance, such as the indicators developed during the administration of Mayor Fajardo (2004–2007), allowed a balance in the public policy implementation and effectiveness by the Municipal Council and the citizens. This generated more information for the planning and monitoring stages of the 2008–2012 MDP” (personal communication, November 4, 2008).

The 2009 RoB was formulated and directly aligned with the MDP strategies and multiannual investment plans (step 3). As in the MDP approval process, the council assessed the consistency of the annual budget proposal with the MDP, employing the RoB information.

To reinforce the scope of the RoM approach, the administration started to design, in 2008, an institution called the Public Policy Watch, which would employ RoB performance information (step 4). Public Policy Watch would establish an information network of government and nongovernmental institutions to support planning and M&E of public policies. Four thematic components are being developed: (i) knowledge management; (ii) M&E of human development and quality of life; (iii) performance M&E; and (iv) M&E of the Territorial Ordering Plan. In particular, components (ii) and (iii) are directly generated by the RoB and will be complemented by the evaluation strategy, which is also being designed.

Another major step in 2008, was the passing of Resolution 087 by the Comptroller’s Office. The resolution included RoB explicitly in the annual management reports that are part of the audits undertaken by this office.19 It also strengthened the results-oriented characteristics of the MDP by making mandatory the inclusion of goals, targets, baselines, and corresponding performance indicators, starting with the 2012–2015 MDP.

This legal instrument was recently applied as part of the 2008 annual performance report. The Comptroller’s Office employed the RoB as the main source for its audit and undertook an in-depth performance analysis with all the secretariats. It must be noted that the Comptroller’s Office structured a multispecialist task team, which worked together with the Municipal Planning Department and Secretariat specialists. It is likely that the improvement

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plan resulting from this exercise will help to refine the RoB and strengthen the collaborative effort of the control organization and the administration.

Currently the administration, led by the Information Office (Metro Información) at the Municipal Planning Department, is initiating the design of an evaluation strategy. Previous efforts include specific program and project evaluations and surveys as well as the models employed to analyze the effect of the MDP on the Human Development and Quality of Life Indexes. However, these are \textit{ad-hoc} practices and the administration is aware of the need for a structured evaluation plan that will complement RoB information as a support tool for decision making. The initial design considers the definition of an evaluation agenda, the systematic use of different evaluation types and methodologies, and the definition of institutional arrangements to support it.

Finally, formulation of the 2010 RoB has just begun and will be presented to the council for approval in October 2009.

In terms of funding, the second phase (table 2) was completely financed by the administration (US$ 313,183 between 2008 and 2009).

### Table 2: Phase 2 — Estimated Costs
(in U.S. dollars)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local funding</td>
<td>Local funding</td>
<td></td>
</tr>
<tr>
<td>Technical assistance and software development</td>
<td>$103,410</td>
<td>$136,571</td>
<td>$239,981</td>
</tr>
<tr>
<td>Reports and dissemination</td>
<td>$4,207</td>
<td>$45,015</td>
<td>$49,222</td>
</tr>
<tr>
<td>Workshops and training</td>
<td>$7,152</td>
<td>$16,828</td>
<td>$23,980</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL</strong></td>
<td><strong>$114,769</strong></td>
<td><strong>$198,414</strong></td>
<td><strong>$313,183</strong></td>
</tr>
</tbody>
</table>

Source: Banco de Proyectos de Inversión de Medellín; USAID Project Document; Authors’ calculations.

Overall, the financial trend observed during the two phases demonstrates the complete appropriation and commitment of the administration to operate the system with local funding, thus ensuring its financial sustainability.

### 4.4 Operation

The RoB system has been used every year since 2007, and linked to the budget cycle. Since then, three annual budgets have been formulated and implemented, and one is currently being formulated following this approach.
An “indirect RoB” has been set up in which the administration uses performance information to inform budget decisions, together with other information and policy considerations. The demand-side contributes to these dynamics, exerting control over the administration planning, budget programming, and overall target achievement (OECD, 2004).

The institutional setting for the RoB evolved from its initial ad-hoc coordination unit to an area of the Information Office (Metro Información) at the Municipal Planning Department. The Investment Projects Office has been integrated with the MDP M&E Unit at Metro Información, guaranteeing the coordination of the investment cycle through projects with the annual action plans and the MDP, respectively.

Coordination with the Finance Secretariat has meant joint operations—responsibilities are defined in periodic meetings and through decision mechanisms, which were established specifically to operate the RoB. A general view of the system’s operation is presented in figure 4.

**Figure 4: RoB General Operation**
Together, the Municipal Planning Department and Finance Secretariat conduct the system. They have responsibilities for overall planning, M&E, and reporting to demand-side stakeholders. The SAP system allows an integrated analysis of performance and financial information with the Sector Secretariats. Disaggregation of data in SAP facilitates the monitoring of specific attributes of the target population, among others, gender, age, ethnic origin, and income level.

SAP reports are employed as inputs, together with information generated through specific surveys, studies, and evaluations, for discussions among the Municipal Planning Department, Sector Secretariats, and Mayor’s Cabinet meetings when required. A Geographic Information System (GIS) run by Metro Información also generates geo-referenced information about RoB expenditures in the urban and rural communes, which is used to track targeting.

Altogether, these sources are taken into account in subsequent decision processes throughout the budget cycle. Metro Información acts as the main information component in this process, processing and generating reports and overseeing accountability mechanisms.

Sector Secretariats design their respective plans and budgeting and provide the inputs to the monitoring system SAP. They also manage sector information systems which complement or provide in-depth information for specific indicators. This work supports their managerial functions and performance reports. It also contributes to specific surveys and studies aimed at improving the quality of service delivery.

Demand-side stakeholders employ the reports generated by the system and, depending on their role, exert specific functions of political, fiscal, and social control. The Municipal Council employs RoB information as the basis for discussions and debates about what approve in the annual budget. Annual reports are presented by the Mayor’s Office to the council because the council has to ensure MDP compliance. To complement this role, the council usually requires additional specific reports from the secretariats to debate the progress of MDP implementation.

The Mayor’s Office also generates annual reports for the citizens and civil society organizations. Annual reports are presented in town-hall meetings where the mayor and the administration are held accountable for progress in MDP implementation. These meetings are complemented by sector-specific or thematic discussions in which citizen feedback is received and used to improve performance.
Two nongovernmental organizations have played a key role in exerting social control on the administration. These are the “Veeduría Ciudadana al Plan de Desarrollo Municipal” (VC) and “Medellín Cómo Vamos” Program (MCV).20

Since its creation in 1996, the VC has undertaken independent monitoring and analysis of the MDP. VC consists of nongovernmental and community-based organizations, with a representative group that leads public analysis, debate, and dissemination of their findings (Citizens Oversight to the MDP 2008). The tools used by the VC to track and generate information flows on performance are based on data from the administration. For this reason, the RoB, and the participatory approach promoted by the administration has improved their capacity and outreach.

MCV is younger than VC. It was created in 2006 and draws from the private sector. MCV is made up of members of the Medellín Chamber of Commerce, “El Colombiano” newspaper, and EAFIT University, with support from the nationwide program, “Ciudades Cómo Vamos.” This makeup gives the MCV program the financial independence and capacity to undertake in-depth specialized studies and surveys about the government’s performance. Their findings are widely disseminated and discussed in public forums, which the administration is invited to attend.

The main goal of MCV is to evaluate the changes in the quality of life, with the purpose of contributing to the debate surrounding the MDP’s impact on the city inhabitants (Programa Medellín Cómo Vamos 2008). In this sense, the program has contributed to the development of quality technical debates and to the administration’s attention to its policies, programs, and projects. MCV uses RoB as a source of information, and validates this information with specific studies, contributing to improve its quality. On the other hand, citizen surveys complement the technical findings and serve as a monitor of quality delivery, which are used by the administration.

The Comptroller’s Office, in turn, is the institution responsible for fiscal control of the administration. The RoB is the main source (since passage of Resolution 087 in March 2008) of audits and annual reports from the Mayor’s Office. It also undertakes an evaluation of every finalized MDP. For instance, the latest evaluation of the 2004-2007 MDP was completed in 2008 and based on RoB information (Comptroller’s Office of Medellín 2008). This analysis focused on the accomplishment of set targets at the output and outcome level, presenting performance issues as well as M&E recommendations to the administration for improving its practices.

20 A literal translation would be “Citizens Oversight to the MDP” and “Medellin, How Are We Performing?”
4.5 **RoB Formulation Process**

The RoB formulation process involves different areas of the administration and the Municipal Council, which is responsible for its final approval. Figure 5 shows the annual formulation activities and the responsible parties.

**Figure 5: RoB Formulation Process**

Formulation starts with the Finance Secretariat’s determination of the budgetary restriction, based on the Medium-Term Fiscal Framework. This information is taken together with set priorities in the MDP to define the policy guidelines, as a joint exercise between the principals. The guidelines provide the framework and ceilings for the Sector Secretariats to prepare their respective financial budget proposals, which must include RoB indicators and goals as an annex. In order to do so, Secretariats analyze observed performance trends from previous and ongoing budget cycles.

As soon as the budget proposals are prepared, they are discussed with the principals, any necessary adjustments are made, and the consolidated budget law proposal is presented to the legislature, that is, the Municipal Council. At this stage, past and current RoB performance are employed in roundtables between principals (Finance Secretariat and Municipal Planning Department) and agents (Sector Secretariats) to support the final
allocation decisions. Draft action plans are prepared based on this proposal, with their corresponding investment projects, targets, and indicators.

The budget law proposal is studied by the council and discussed with the administration, employing performance and financial information (indicators, targets) to guide the process. Once agreed, the budget law is approved by the council and the original RoB is adjusted, depending on changes generated during approval. Finally, a Liquidation Decree (presentation of the approved budget) is sanctioned and action plans are also adjusted at this stage, leading to the implementation stage.

4.6 RoB Implementation

During implementation, performance and financial information generated by the SAP integrated monitoring system is used periodically as input to support managerial decisions.

Integrated analysis reports are handled internally as managerial support tools. Overall performance analysis is undertaken primarily by the Municipal Planning Department. The Finance Secretariat and the Municipal Planning Department generate recommendations, derived from these reports, for their respective agency leaders. The recommendations are discussed with line-item agencies (the Sector Secretariats) along with other sources of information that support implementation or planning decisions. Evaluations, specific studies, and surveys are taken into consideration at this stage, depending on their timeliness and relevance to the matters under discussion.

Decisions may be budgetary or strategic and do not follow hard rules that link performance to allocation, validating the indirect type of RoB used in Medellin (see figure 6).
Turning to the demand-side, more specific reports are derived from the integrated analysis reports and submitted annually to the Comptroller’s Office, the Municipal Council, and to the public. These reports are analyzed and publicly discussed, generating feedback from the demand-side. In the case of the Municipal Council and Comptroller’s Office, recommendations are binding and may generate changes during the implementation or before approval of new annual budget decision-making processes.
5. Results to Date

The main contribution of Medellin’s experience with the RoB system is in making it a support tool for decisions on budget allocation, planning, and execution. The system generates performance information based on the MDP and acts as the main vehicle for interaction with the Municipal Council, civil society organizations, and the Comptroller’s Office. The RoM approach and its governing principles provide the framework for supporting RoB operations as a managerial tool and provide inputs for performance analyses, studies, and evaluations.

5.1 RoB, 2007–2008

Formulation and implementation of the first two annual RoB in 2007 and 2008 provided the basis for the current consolidation trend. As previously discussed, the first phase provided the administration and the demand-side stakeholders with a powerful set of tools that contributed (among other things) to making the governing principles defined in the RoM approach feasible.

Two important limitations that were overcome with the RoB were (i) the diffuse connection between investment projects and MDP priority targets and goals, and (ii) the scarcity of quality indicators at the output and outcome levels. The technical and, to an extent, strategic solution provided by the RoB activated supply- and demand-side dynamics, which the administration capitalized on, together with other good governing practices.

Figure 7 illustrates the limitations that were solved through the 2007 RoB, showing two examples from education and health sectors.
Figure 7: 2007 RoB — Health

### Strategic line No 2: Inclusive and social Medellín

#### Component 1: Health

Goal: Direct and coordinate the health sector and the General Health Social Security System in the local level... emphasizing individual and collective actions for health promotion and prevention of diseases

Program: Public Health

Action Plan (Before RoB)

<table>
<thead>
<tr>
<th>MDP TARGET</th>
<th>INDICATORS</th>
<th>PLANNED TARGET (MDP)</th>
<th>ACHIEVED TARGET (2007)</th>
<th>INVESTMENT PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the incidence and prevalence of pathologies of obligatory notification at the end of the 4-year period</td>
<td>Detect, vigilate and control special interest events in public health</td>
<td>100%</td>
<td>45%</td>
<td>1. Epidemiologic vigilance of public health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MDP TARGET</th>
<th>INDICATORS</th>
<th>PLANNED TARGET (MDP)</th>
<th>ACHIEVED TARGET (2007)</th>
<th>INVESTMENT PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the incidence and prevalence of pathologies of obligatory notification at the end of the 4-year period</td>
<td>Mortality rate due to malnutrition</td>
<td>4 (Rate x 100.000 children under 5 years old)</td>
<td>2.4 (Rate x 100.000 children under 5 years old)</td>
<td>1. Epidemiological vigilance of public health</td>
</tr>
<tr>
<td></td>
<td>Congenital syphilis cases</td>
<td>2 (Rate x 1000 born alive)</td>
<td>3.9 (Rate x 1000 born alive)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIV (AIDS) mortality rate</td>
<td>5 (Rate x 100.000 inhab.)</td>
<td>6.6 (Rate x 100.000 inhab.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortality rate due to uterine cancer</td>
<td>6 (Rate x 100.000 women)</td>
<td>5.4 (Rate x 100.000 women)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortality rate due to respiratory tuberculosis</td>
<td>2 (Rate x 100.000 inhab.)</td>
<td>2.5 (Rate x 100.000 inhab.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortality rate due to diarrhea in children under 5 years old</td>
<td>6 (Rate x 100.000 children under 5 years old)</td>
<td>4.8 (Rate x 100.000 children under 5 years old)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortality rate due to acute respiratory illness in children under 5 years old</td>
<td>17 (Rate x 100.000 children under 5 years old)</td>
<td>19.1 (Rate x 100.000 children under 5 years old)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mothers mortality rate</td>
<td>27 (Rate x 1000 born alive)</td>
<td>29.9 (Rate x 1000 born alive)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children mortality rate</td>
<td>11 (Rate x 1000 born alive)</td>
<td>10.8 (Rate x 1000 born alive)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intervened IPS</td>
<td>190</td>
<td>190</td>
<td></td>
</tr>
</tbody>
</table>

In 2005 the Public Health Program had one process indicator which scarcely aligned with the MDP set target. RoB formulation defined a set of nine outcome indicators and one output indicator—intervened Service Provider Institution (IPS)—that would comprehensively cover the four-year target.
Another case in the education sector demonstrates both the disconnection between investment projects and set MDP targets, and the scarcity of adequate performance indicators in the 2005 budget (see figure 8).

Figure 8: 2007 RoB — Education

<table>
<thead>
<tr>
<th>Strategic line No 2: Inclusive social policy for Medellín</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1: Education</td>
</tr>
<tr>
<td>Goal: Provide access to education for all children 5-17 years old, emphasizing an inclusive policy that guarantees the right to be educated.</td>
</tr>
</tbody>
</table>

**Program: Access and inclusion**  
**Action Plan: Before RoB**

<table>
<thead>
<tr>
<th>MDP TARGET</th>
<th>INDICATORS</th>
<th>PLANNED TARGET (2005)</th>
<th>ACHIEVED TARGET (2005)</th>
<th>INVESTMENT PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise the enrollment rate in transition grades to 80%, affecting 60,014 children in the 4-year period</td>
<td>Salaried teachers</td>
<td>1,465</td>
<td>1,453</td>
<td>1. Teachers payments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MDP TARGET</th>
<th>INDICATORS</th>
<th>PLANNED TARGET (MDP)</th>
<th>ACHIEVED TARGET (2007)</th>
<th>INVESTMENT PROJECTS</th>
</tr>
</thead>
</table>
| Raise the enrollment rate in transition grades to 80%, affecting 60,014 children during the 4-year period | Enrollment rate in transition grades | 80% | 91% | 1. Hiring of the education service  
2. Teachers payments  
3. Patrons contributions  
4. Administrative support to education institutions  
5. Administrative personnel payments  
6. Educational equipment rent  
7. Municipalities process teachers payments |

The indicator defined in the 2005 action plan did not reflect the MDP target and was substituted by more relevant ones. Moreover, there were a total of seven projects that were linked to the target but were not identified previously.

5.2 Municipal Development Plan, 2008–2011

The current MDP takes into account the experience gained during the development and initial operation of the RoB system between 2005 and 2007. Observed trends in performance information, target achievement, related costs, and overall implementation lessons were considered by the administration during the preparation of the current MDP. In this sense, two central processes provided valuable input during 2007—evaluation of the 2004–2007 MDP and formulation of the 2008 Annual Budget.

The MDP was evaluated by the previous administration as part of its final-year reports to other government agencies and the public. Town-hall meetings, sector conferences, and
academic debates were held by the administration to promote discussion and public awareness of how difficult development issues were being addressed by the executive through the MDP.

The Comptroller’s Office made an independent evaluation of the MDP—a regular activity undertaken by city mayors at the end of their terms, in fulfillment of a legal mandate.\textsuperscript{21} For the first time though the evaluation contained systematic and verifiable performance information generated by the administration. The evaluation highlighted limitations in planning as manifested in effectiveness and cost rates—143.3 percent of planned financial costs were executed and target completion was equivalent to 109.5 percent (Comptroller’s Office of Medellín 2008). The evaluation also looked at how the main goals changed through the impact indexes, signaling some limitations in the application of the Human Development Index (HDI) because of incomplete information on municipal per capita GDP. These aspects were discussed with the administration in order to improve subsequent planning processes as well as to improve the information basis for the HDI, as is currently being done.

During the first half of 2008, formulation of the new MDP followed the good-governance practice of allowing for public participation and discourse, supported by performance information. Civil society representatives and formal participatory groups, led by the Planning Council, took an active role in the design of the new MDP.\textsuperscript{22} After this step, the Municipal Council, together with the Planning Council, undertook 6 main events in zones and more than 30 sector-specific workshops in which the MDP proposal was presented to the community and feedback encouraged. A general outline was produced and discussed with the administration. The administration adjusted the MDP proposal, based on the agreed points, and presented the plan to the Municipal Council for final approval. At this stage, the Municipal Council went back to the community to confirm that their priority concerns were included. Simultaneously, discussions with the Sector Secretariats were held at the council, centering on the set priorities, indicators, and targets, as well as their feasibility and accuracy.

Overall, MDP formulation included innovative practices which were without precedent in Medellín, supported by RoB-generated information.

**MDP Results-Oriented Structure**

The MDP that was finally approved for the current administration contains six strategies with stated developmental goals. Each is divided into component parts, which in turn are made up of programs and specific projects. Result indicators and their respective targets have been defined for each component. Output and process indicators and their targets

\textsuperscript{21} Law 142 of 1993, based on a Constitutional Mandate.  
\textsuperscript{22} See Medellin Mayor´s Office 2008, p. 5.
correspond to specific projects. An important lesson from the previous MDP (2004–2007) is to include outcome sequencing or results-oriented chains, linking the logical contribution of activities to higher-level effects.

Figure 9 extracts some of the key elements of the chain, based on the MDP Health Component. This component is part of the strategy, “Development and Welfare for the Whole Population.” The strategy includes other components with interventions in education, security and coexistence, culture, nutrition, attention to vulnerable groups, and recreation. Specifically, the Health Component is based on the four-year Municipal Health Plan, developed under the guidance of the Ministry of Social Protection and fully explained in the MDP. The Health Component defines a main goal and specific outcomes, including result indicators and targets for 2008–2011. Output indicators and targets are also defined based on their logical contribution to expected outcomes. The MDP also includes the main activities necessary to generate the outputs. Process indicators are not included in the MDP but they are tracked internally.

Figure 9: Results-Oriented Chain Applied to the Health Sector
Another lesson derived from the RoB implementation has been the defining of responsibilities in planning, budgeting, and implementation. The Health Secretariat (HS) is the main entity responsible for management and performance, with appointed staff at different levels from inputs to outcomes. The Municipal Planning Department and Finance Secretariat support the HS in the component planning and budgeting and overall M&E. Information is reported to the demand-side stakeholders as a primary duty of the HS with overall coordination done by the Municipal Planning Department. As a whole, the MDP defines targets more realistically and the set of indicators follows a vertical logic which is needed to attain development effectiveness.

Project and program structuring has followed a top-down approach, derived from the development goals. The design of projects and programs has been based on their expected contribution to component results and strategic goals, respectively. This process has reduced inertial project funding and linked new projects with component-level effects (see figure 10).

**Figure 10: Vertical Logic of the MDP**

The MDP includes a four-year investment budget plan as a mandatory requirement. A major innovation in this case has been the use of available information on financial and performance trends, provided through the 2007 and 2008 RoB, as inputs to the multiannual investment plan. This plan reflects the costs of investment projects that have been estimated...
by taking into account set targets. Consequently, the 2009 RoB is founded on the budget plan and target annual projections. An obvious implication is that the RoB contributes directly to keeping on target and aligning with the MDP.

Annual action plans, another legal requisite traditionally defined without observing the MDP, are now direct products of the RoB and are linked to the MDP.

5.3 Budget Allocation Based on Development Priorities

In the last two MDPs, budget allocations have been made on the basis of population and geography. In particular, the Quality of Life Index has been one of the key variables that have guided investment decisions. For the current MDP (2008–2011) the administration undertook an exercise that reflects this development priority.

Social investments in the RoB for the current MDP are allocated based on the 2007 figures for the Quality of Life Index, that is, expenditure are concentrated in zones where the index is lower (figure 11).

Figure 11: 2007 Quality of Life Index
Multicriteria decision-making support tools were used for this purpose. Analyses used poverty information and relevant variables, provided through the RoB, and evaluations to support project prioritization. For instance, the Urban Equipment Model, which corresponds to the MDP component, “Public Space, Equipment, and Sustainable Habitat,” undertook a multicriteria analysis to prioritize the locations of key social infrastructure projects (Municipal Planning Department 2008). The variables included were the: (i) Quality of Life Index; (ii) demographic concentrations of vulnerable (poorest) populations; (iii) violence rates; (iv) urban dynamics and slums; (v) existing infrastructure; and (vi) unmet needs of vulnerable populations. Subsequently, the RoB reflected this prioritization, and specific targets for social infrastructure projects have been defined and are currently monitored. The GIS system provides geo-referenced information which is used together with SAP information to assess performance in each community project.

Another illustrative case is the “Buen Comienzo” (Good Beginning) project, continued from the previous administration because of its success. The project includes the construction and operation of childcare centers for 57,000 children, up to 5 years in age and from the poorest families, equivalent to coverage of approximately 41 percent of all children in this grouping. Prioritizing the locations of the centers has been based on appraisal of the following variables: (i) demographic concentration of the poorest families with children in the target group; (ii) institutional supply, in order to identify the areas where there is a deficit in childcare; and (iii) complementarity with other sector institutions, in particular the Colombian Family Welfare Institute (Instituto Colombiano de Bienestar Familiar). Data sources for this prioritization process include geographical information systems operated by the administration and performance information from the RoB system.

5.4 Active Demand Triggers RoB System Operations

Comptroller’s Audits and MDP Evaluation

The Comptroller’s Office (CO) has been employing information generated by the system to audit government performance of MDP targets. Evaluation of the 2004–2007 MDP was made based on system reports as well as current annual audits. This process led to informed discussions about trends and explanatory reasons for the observed figures. Previous audits were a mere formality without quality information to support the CO’s ideas. Nowadays, with the expedition of Resolution 087, audits are completely based on the RoB and attention is focused on outcomes and mechanisms for improving performance.

In this sense, the CO is placing more emphasis on development effectiveness, the quality of indicators, the relevance and feasibility of targets, and the government strategies to achieve them. This higher level of discussion means greater efforts by the administration to identify a second generation of indicators, guaranteeing their management and, more important,
incorporating them into program and project goals. Overall, the constitutional role of the CO is being supported by the RoB system in a constructive process which promotes better planning and management efforts for the administration.

**Political Control of the Municipal Council**

The Municipal Council is progressively shifting from on-line budgeting to a focus on outputs and outcomes. Before the first RoB annex was introduced in 2007, the council relied on on-line budgeting information to approve each annual budget. Since then, the First Commission of the Council, in charge of budget approval and monitoring, has started to demand and analyze performance information generated by the RoB.

The discussion, approval, and current monitoring of the 2008–2011 MDP follow this logic. The Council undertook a detailed analysis of the past MDP and guided debates based on observed performance, requiring the current administration to better justify goals, indicators, baseline information, and targets. Public discussions in different communities were promoted by the council, using the RoB information to inform discussion and public debate.

So far, during the present administration, two RoB annexes have been approved by the Municipal Council and made public with the MDP.

**Civil Society: Participation and Social Control**

The RoM approach followed by the last two administrations promoted community participation as a means to increase democratic governance and to develop a relationship between the government and citizens in the long term.

Participation in public affairs is currently institutionalized through participatory planning and budgeting, aligning community-based priorities to the wider city issues targeted in the MDP. Reports, town-hall meetings, public discussions, and other social communication means are thoroughly employed by the administration to promote transparency, public accountability, and feedback from citizens and civil society organizations.

Two nongovernmental organizations have played a key role in exerting social pressure on the administration. These are the “Veeduría Ciudadana al Plan de Desarrollo Municipal” (VC) and “Medellín Cómo Vamos” Program (MCV). As a RoM component, RoB has provided useful information to these organizations, improving their analytic and social discourse capacity. In turn, they are external validators of the RoB, demanding better quality information and decisions to improve performance.

For instance, in 2008 MCV demanded a new performance-information reporting instrument geared toward citizens, which would be more amenable and accessible to the general public. As a result, Metro Información created the “Medellin in Numbers” report in 2009,
which is being widely distributed to complement the formal performance reports. MCV discussion forums and quality-of-life annual reports have also contributed toward enhancing the outreach of the Comptroller´s audits, which, in turn, are considered by the administration. Impact can be demonstrated in areas such as the incidence of acute respiratory illness associated with the deterioration in air quality. This public health issue was brought up by MCV and reinforced by the Comptroller’s Office in the 2004–2007 MDP evaluation. The administration responded by including specific investment projects and outcome indicators aimed at improving air quality and reducing the incidence and prevalence of respiratory-related diseases.

Another example is from 2008, when VC lobbied decisively to have free education included as a policy goal in the 2008–2011 MDP. The administration developed an MDP component, “Medellín: The Most Educated,” with corresponding programs and projects to achieve this goal.

6. Policy Recommendations and Lessons Learned

The Medellín case shows that political commitment toward adopting a RoB approach that strengthens simultaneously the supply and demand sides of a RoM system is a necessary condition toward ensuring its implementation. Once this condition is met, the attainment of specific technical skills and development of support tools then follow, that is, instruments are secondary conditions for RoB implementation. Another lesson learned is that it is necessary—but not sufficient—to give technical support during administration transition for the consolidation and sustainability of the reform. This study shows that in Medellín these conditions were attained. However, unless stakeholders keep demanding performance information, sustainability of the reforms is not guaranteed.

Replicating the RoB system in other area governments should follow these features. First of all, the usefulness of any tool intended to support resource allocation is directly related to the commitment of governments to adopt a governing-for-results approach. Such an approach allocates resources based on effectiveness, efficiency, and equity criteria, and is focused on policy priorities. Otherwise, if the information generated is disregarded in the policy and decision making processes, the system will be seen as just another bureaucratic requisite and will not be used. The relative fragility of institutions in developing countries poses a limitation on RoB implementation due to weak law enforcement and accountability mechanisms. It is for this reason that the political will and commitment of an administration to undertake a budgetary reform process within the context of a RoM approach is a key factor of success.

In addition, it is important to take into account the technical capacities of the municipalities. Medellín is the second largest city in Colombia terms of population and GDP. In fiscal policy terms, Medellín is sustainable in the long run and has enough technical capacity to
implement a RoB system within a relatively short time frame and within the scope described in this paper. Considering that other subnational governments cannot present such a positive scenario, potential replication of the system should be adapted to specific capacities. Moreover, it would be necessary to evaluate the benefits and risks of implementing a RoB system in a municipality with fiscal problems (e.g., excessive debt). In such a case, the benefits may relate to more efficient use of public resources and improved fiscal accountability. Risks may be associated with limited investment capacity and a needed focus on a heavy debt burden.

The system needs to be adaptable and modular in order to be replicated in other municipalities. The diagnosis phase should identify where to focus, and design a step-by-step gradual implementation road map indentifying feasible targets.

Another recommendation is related to the demand side of the system. Even though RoB has traditionally concentrated on the supply-side—with a technical emphasis on tools, skills, and processes—the context of developing countries calls for a supply- and demand-side approach that balances powers in the institutional setting, reducing the risk of moral hazard. Active demand from stakeholders limits the administration’s discretion to implement RoB instruments and practices, especially at the beginning of political cycles. In the case of Medellín, the RoM approach adopted by the administration fulfilled the constitutional mandates of participation, transparency, and accountability, thus empowering the demand-side of the RoB system. Public reporting, promotion of public discussions, and the use of RoB to demonstrate explicit commitment to accomplish MDP goals, were all mechanisms that the administration used to reinforce this strategy. These “good governance” practices generated powerful incentives during elections because political candidates understood their importance as campaign core issues.

Beyond the political cycle, civil society organizations have been demanding better quality information and participation mechanisms promoted by the administration. The Municipal Council has proven itself to be proactive in the formulation and approval of the MDP and 2009 RoB. The council is currently systematizing good practices and designing a Public Policy Watch to follow the administration’s performance and municipal problems. The Comptroller’s Office is also “raising the benchmark” by requiring the administration to focus more on outcomes and impacts in its reports and analyses.

The Medellín case also points to the importance of developing capacities and good practices before adopting mandatory requirements and imposing them on public agencies. Agreement 43 of 2007 (sanctioned by the Municipal Council) and Resolution 087 of 2008 (sanctioned by the Comptroller’s Office) demonstrate this point. The design of these resolutions was the result of proven practices and discussions with the administration, and was derived from the 2007 and 2008 RoB. The Municipal Council Agreement 43 provided the guidelines and processes that were applied in the formulation of a results-oriented and
participatory 2008–2011 MDP. The Comptroller’s Office Resolution 087 included RoB explicitly in the annual management reports, which are part of the audits undertaken by this agency. The resolution also strengthened the results-oriented characteristics of the MDP by making mandatory the inclusion of goals, targets, baselines, and corresponding performance indicators, starting with the 2012–2015 MDP. Both laws formalized innovative results-oriented good practices based on proven capacities. The progressive trend, in which benchmarks are being raised by the Comptroller’s Office, and the consequent response of better performance from the administration, prove the importance of this beneficial pathway. This approach departs from the traditional practice of sanctioning rigid laws requiring immediate compliance without the adequate institutional capacities and managerial appropriation needed to guarantee their successful application.

Overall, the strategy adopted in the two phases of RoB implementation reduces the potential risk of unsustainability due to a possible change in the governing model for the next political cycle (2012–2015). However, for other municipalities, the timing and sequencing of the system’s implementation should be carefully designed to minimize the risk of unsustainability. To that purpose, the demand-side approach is crucial. If civil society or the Municipal Council demands public performance information and RoB practices, it would be more difficult for the political administration to ignore this demand and not use the system.

As a work in progress, the system should be strengthened step-by-step. First, processes like the participatory planning and participatory budget must be determined by increasingly using the technical instruments that are developed by building a RoM. The determination of these instruments encourages the development of a common lexicon for the different groups involved in the processes, such as public employees, community leaders, and local politicians.

Second, it is necessary to continue the development of relations among civil society organizations, the Municipal Council, and the local administration, by using different means for exchanging and analyzing information about their performances and to organize discussion forums. It is important to continue actions that foster the technical and political knowledge of citizens that benefit from the government programs. Along these lines, the “Aula Abierta” (Open Classroom) program, offered by the Municipal Council, is a valuable experience that should be replicated in other social and political organizations. Efforts like the Public Policy Watch, promoted by the municipal administration, should take into account similar actions in other localities.

Third, the system should be more widespread within the administration. Requisite training on budget tools for staff at all administration levels should continue intensively, thus keeping up the motivation and commitment to better performance gained so far.
Fourth, as a work in progress, the design of the Public Policy Watch, and the Evaluations Strategy, should be finalized so that implementation of these key instruments can begin. The usefulness of a RoB system is triggered when a comprehensive evaluation agenda generates information on the causal links between interventions and effects. An evaluation portfolio that includes different types and methods suited to prioritized interventions will contribute toward enhancing the quality of information needed to support planning and allocation decisions. Institutional arrangements that guarantee the use of evaluation findings by the administration along the policy cycle and their widespread diffusion to the demand-side are also required to strengthen the successful path.

Other tools that have been implemented at the national level, such as the Medium-Term Expenditure Framework, should be fully implemented in a consistent manner at the municipal level. Finally, a policy to evaluate the quality of public services should be implemented. Municipalities should consider that timing and sequencing are important when introducing new complementary tools.
APPENDIX: Laws Relevant to the Building of Medellin’s RoB System

Comptroller’s Office of Medellin

Resolution 087 of March 26, 2008

Colombian Republic Congress

Law 134 of 1994
Law 152 of 1994
Law 358 of 1997
Law 617 of 2000
Law 819 of 2003

Colombian Republic Presidency

Decree 111 of 1996
Decree 4730 of 2005

Municipal Council of Medellin

Municipal Agreement 43 of 2007
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6. OIL, COFFEE AND THE DYNAMIC COMMONS PROBLEM IN COLOMBIA

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