Developing Towns and Cities: Lessons from Brazil and the Philippines

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The World Bank has been financing projects aimed at supporting municipal development for some 20 years. This book presents and analyzes the concrete results of four successful projects in Brazil and the Philippines. This is the first time the Bank has disseminated an assessment of the medium-term impacts of these operations to a wider readership.

The study grew out of recently completed performance audits of municipal development projects in Brazil and the Philippines, and drew its data from many sources. The analysis was based on selected indicators drawn from a very large municipal finance database covering more than 800 municipalities over a period of seven years, and a survey of public markets in the Philippines. In addition, the study teams conducted fieldwork in Brazil and the Philippines during 1997–98. An OED workshop held in December 1998 to discuss the study’s preliminary findings was well attended by municipal development experts from across the Bank. These experts contributed further insights, which are reflected here.

With evidence drawn from a very broad universe of municipalities, the study concludes that municipal development projects in Brazil and the Philippines helped to stimulate and facilitate municipal reform. Municipalities that participated in municipal development projects consistently outperformed nonparticipants on the fiscal front,
the more so the deeper their engagement. Also, participating municipalities significantly improved their institutional capacity to finance and manage investment programs. The lessons drawn from this study should be useful for future policy and operations.

Robert Picciotto
Director-General, Operations Evaluation Department
Of the 75 developing countries with more than 5 million people, 63 are now pursuing decentralization policies that devolve functions and responsibilities to local governments. This process is severely constrained in many countries, however, by a lack of institutional capacity among local governments, limited resource mobilization at the local level, and limited access to long-term financing for investment programs. Municipal development projects (MDPs) aim at mitigating these constraints. Since the early 1980s, 16 Bank-financed MDPs have been completed in 11 countries, and 19 more in 15 countries are currently being implemented, with total lending for all MDPs reaching US$2 billion.

This impact evaluation report assesses the effect of MDPs on the fiscal and financial management capacity of local governments, as well as on their capacity to plan and implement investment programs. It proceso se ve sumamente limitado en muchos países por la falta de capacidad institucional de los gobiernos locales, la escasa movilización de recursos a nivel local y el limitado acceso a financiamiento a largo plazo para los programas de inversión. Los proyectos de desarrollo municipal (PDM) tienen por objeto atenuar estas limitaciones. Desde principios de la década de 1980, se han terminado 16 PDM correspondientes a 11 países, y en la actualidad se están ejecutando otros 19 en 15 países; el total de financiamiento para PMD asciende a US$2.000 millones.

This impact evaluation report assesses the effect of MDPs on the fiscal and financial management capacity of local governments, as well as on their capacity to plan and implement investment programs. It
also assesses whether the projects had the direct effects on beneficiaries and the indirect effects on the development of local economies, particularly employment and income generation, that were anticipated at project appraisal. The study evaluates the impact of four successful MDPs, two in the Philippines and two in Brazil—cases that provide valuable lessons for ongoing and future projects in those countries and elsewhere. The study collected and analyzed three sets of data: (1) municipal finance data from local governments, (2) a sample survey of mayors on capacity building, and (3) a survey of stakeholders in public markets. At both the municipal and the beneficiary levels, the study compared the conditions in the participating municipalities before and after project implementation with conditions in nonparticipating municipalities during the same period.

The Brazil and Philippines MDPs were almost identical in their objectives and design but had different implementation strategies. In Brazil, a statewide approach allowed many municipalities to participate in the fiscal reform program, packaged together with funding for technically simple projects such as street paving. In the Philippines, a more selective approach allowed a smaller number of eligible municipalities to finance revenue-generating projects such as public markets. In both countries, the programs had two main instruments: (1) fiscal and financial reform and (2) infrastructure investment projects. To apply for a loan under the project, a municipal government had to first submit a financial action plan, along with a commitment to approve — l'exécution du projet effective auprès des maires sur le renforcement des capacités ; et 3) les données d’une enquête auprès des marchands sur les marchés publics.

Au niveau aussi bien des municipalités que des bénéficiaires, l’étude a comparé la situation des municipalités participantes avant et après l’exécution du projet à celle des autres municipalités durant la même période.

Les PDM du Brésil et des Philippines étaient pratiquement identiques par leurs objectifs et leur conception, mais différaient par leurs stratégies d’exécution. Au Brésil, une approche à l’échelon des États a permis au plus grand nombre possible de municipalités de participer au programme de réforme budgétaire, parallèlement à l’octroi d’un financement pour des projets techniquement simples tel que le revêtement des rues. Aux Philippines, une approche plus sélective a permis à un plus petit nombre de municipalités admissibles de financer des projets générateurs de recettes tels que l’aménagement de marchés publics. Dans les deux pays, les programmes ont utilisé essentiellement deux instruments : 1) une réforme budgétaire et financière ; et 2) des projets d’investissement dans les infrastructures. Pour solliciter un prêt dans le cadre du projet, les autorités des municipalités devaient tout d’abord soumettre un plan d’action financier ainsi qu’un programme de réformes détaillé, et préparer ensuite un projet d’investissement. La préparation et — une fois le prêt approuvé — l’exécution du projet...
prehensive reform package, and then prepare an investment project. The preparation and—once the loan was approved—implementation of the investment project helped to enhance institutional capacity by offering experience in every phase of the project cycle, from the feasibility study to the construction work.

Analyses of the data show that municipalities participating in MDPs in Brazil and the Philippines outperformed nonparticipants in the area of financial autonomy. Furthermore, participating municipalities relied more on their own revenues than nonparticipants, and even succeeded in mobilizing revenues for additional infrastructure investments. For example, the project had a positive impact on property tax collection and on direct cost recovery through the levying and collection of betterment charges. To remain creditworthy, participating municipalities were more successful than others in balancing their budgets. Thus, the extensive municipal finance data point to significant impact of MDPs on the strengthening of municipal fiscal and financial management.

The survey of mayors in the state of Rio Grande do Sul, Brazil, confirms the importance of such improvements. The mayors said their municipalities most highly valued the institutional development interventions aimed at improving resource management and the management of investment projects, including better procurement procedures. They also valued professional training, information technology, and community participation. The municipalities’ awareness of these advances had an important side effect: successful participants openly promoted the project.

municipalidades elegibles pudo financiar proyectos generadores de ingresos, como mercados públicos. En ambos países, los PDM tenían dos instrumentos principales, a saber: 1) reforma fiscal y financiera y 2) proyectos de inversiones en infraestructura. Para solicitar un en virtud del proyecto, el gobierno municipal primero tenía que presentar un plan de acción financiera, junto con un paquete integral de reformas, y luego preparar un proyecto de inversión. La preparación y, una vez aprobado el préstamo, la ejecución del proyecto de inversión ayudó a fortalecer la capacidad institucional al permitir acumular experiencia en cada etapa del ciclo del proyecto, desde el estudio de viabilidad hasta las tareas de construcción.

El análisis de los datos revela que las municipalidades que participaron en los PDM de Brasil y Filipinas obtuvieron mejores resultados que las no participantes, en la esfera de autonomía financiera. Asimismo, las municipalidades participantes podían valerse más de sus propios ingresos que las no participantes, e incluso lograron movilizar ingresos para inversiones adicionales en infraestructura. Por ejemplo, el proyecto tuvo efectos positivos en la recaudación de impuestos inmobiliarios y en la recuperación de los costos directos gracias a la aplicación y el cobro de contribuciones por mejoras. Las municipalidades participantes, que estaban interesadas en mantener su capacidad crediticia, fueron más eficaces que otras en el logro del equilibrio presupuestario. En consecuencia, los numerosos datos sobre financiamiento municipal revelan el impacto importante de los PDM en el fortalecimiento de la gestión fiscal y financiera municipal.

La encuesta de intendentes del estado de Rio Grande do Sul, en Brasil, d’investissement ont aidé à renforcer la capacité institutionnelle en permettant d’acquérir une expérience à chaque phase du cycle du projet, depuis l’étude de faisabilité jusqu’aux travaux de construction.

Des analyses des données montrent que les municipalités participant à des PDM au Brésil et aux Philippines ont obtenu de meilleurs résultats que les autres du point de vue de l’autonomie financière. En outre, elles se sont appuyées davantage que les autres sur leurs propres recettes, et sont même parvenues à en mobiliser pour des investissements d’infrastructure supplémentaires. C’est ainsi que le projet a eu un effet positif sur le recouvrement des impôts fonciers et sur le recouvrement direct des coûts grâce à la perception de taxes d’amélioration. Pour rester solvables, les municipalités participantes sont parvenues mieux que les autres à équilibrer leur budget. C’est ainsi que les données détaillées sur les finances municipales indiquent que les PDM ont largement contribué au renforcement de la gestion budgétaire et financière des municipalités.

L’enquête auprès des maires de l’État du Rio Grande do Sul, au Brésil, confirme l’importance de ces progrès. Les maires ont fait savoir que leurs municipalités se félicitaient tout particulièrement des interventions au titre du développement institutionnel qui visaient à améliorer la gestion des ressources et celle des projets d’investissement et, notamment, les procédures de passation des marchés. Ils ont également apprécié la formation professionnelle, la technologie de l’information et la participation communautaire. Le fait que les municipalités soient
and its principles among municipalities still not involved.

For the Philippines, the case of the MDP-financed public market in Pulilan shows that the project had significant impact on the development of the local economy. The project not only stimulated employment and income generation, but also triggered the development of a new business center near the public market, which had significant spillover effects.

The study concludes that MDP operations in both countries helped to facilitate municipal reform. Participating municipalities learned that (1) participation in the program triggers the reform process; (2) improved fiscal performance is necessary for better management (thus giving mayors a more entrepreneurial view of their administration); and (3) the sensitivity to MDP impacts is greater with deeper MDP funding. Based on these findings, the study offers four main recommendations: (1) MDP policy reform instruments should be diversified to broaden project impacts; (2) projects should be well designed at the beginning, since later corrections are difficult; (3) competition among municipalities should be promoted through the dissemination of success stories; and (4) to achieve the long-term sustainability of MDPs, borrowers should establish a sound policy and fiscal decentralization framework.

The financing needs of municipalities vary depending on their size and stage of socioeconomic development. In the MDP programs in both Brazil and the Philippines, resource-poor municipalities tend to gain experience and enhance their creditworthiness by first financing projects that have significant spillover effects.

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simple, low-risk projects such as street paving (in Brazil) or public markets (in the Philippines). As they continue to grow and develop, they use the program to finance larger-scale economic infrastructure for manufacturing and commerce, and more complex social infrastructure for the urban population. Eventually they become ready to leave the program and borrow from the private capital market. While such an outcome also depends on the speed of capital market development in individual countries, the experiences in Brazil and the Philippines show progress in helping municipalities prepare for access to the capital market. This catalytic role of the MDP program for local governments is analogous to the role of the World Bank in assisting developing countries until they graduate from the Bank.

**Executive Summary**

**English**

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**Español**

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**Français**

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ABBREVIATIONS AND ACRONYMS

MDP - Municipal Development Project
OED - Operations Evaluation Department
PAR - Performance Audit Report

FOR BRAZIL:

BANRISUL - State Commercial Bank in Rio Grande do Sul
FAMEPAR - Paraná Municipal Assistance Foundation
FUNDOPIMES - State Urban Development Fund in Rio Grande do Sul
FDU - State Urban Development Fund in Paraná
ParanáCidade - Paraná State Urban Development Fund (under the InterAmerican Development Bank)
PEDU - MDP in Paraná
PIMES - MDP in Rio Grande do Sul
RGS - Rio Grande do Sul

FOR THE PHILIPPINES:

BLGF - Bureau of Local Government Finance
CPO - Central Project Office
DOF - Department of Finance
DPWH - Department of Public Works and Highways
IRA - Internal Revenue Allotment
LGA - Local Government Academy
LOGOFIND - Local Government Finance and Development Project
RPTA - Real Property Tax Administration
Introduction

Of the 75 developing countries with more than 5 million people, 63 are now pursuing decentralization policies that devolve functions and responsibilities to subnational governments (Davoodi and Zou 1998). Such decentralization is severely constrained, however, by (1) a lack of institutional capacity among these governments, especially a lack of technical personnel to prepare and implement projects; (2) limited ability to mobilize resources at the local level; and (3) limited access to long-term finance for investment programs. Municipal development projects (MDPs) are intended to mitigate these constraints. Typically, MDPs consist of two components: (1) a line of credit to fund municipal investments in infrastructure and services (municipal development fund);1 and (2) technical assistance to encourage—among other things—a greater fiscal effort at the municipal level. This study evaluates the extent to which MDPs have achieved these objectives, based on two cases in Brazil and two in the Philippines, as shown in table 1.1.

Rationale for the Study

Since the early 1980s, 16 Bank-financed MDPs have been completed in 11 countries, including Brazil, the Philippines, Jordan, and Côte d’Ivoire. Nineteen more MDPs in 15 countries, including Georgia, Tunisia, and the West Bank and Gaza, are currently being implemented. Total lending for all projects has reached US$2 billion. The lending instrument within MDPs has become popular in the Bank’s urban sector because its project concept is consistent with the current emphasis on demand-driven, bottom-up approaches that include strong ownership and local participation, as exemplified by the four projects in Brazil and the Philippines.

This study grew out of recently completed performance audits of those four projects. The performance audit reports (PARs) covered implementation experiences and remaining issues. The agenda that was identified regarding future policy and operational direction is summarized in Chapter 6, and the lessons drawn and recommendations provided in the PARs appear as Annexes 3 and 4.

The PARs found that the projects in Brazil and the Philippines had significant impacts on improving the

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<td>3100</td>
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living conditions and productivity of the residents in participating municipalities. Moreover, their indirect impacts on the local economy have been significant. The performance audits of MDP I and II in the Philippines showed that small, resource-poor municipalities could successfully complete a small revenue-generating project such as a public market, and later, after they had become more creditworthy and technically capable, could come back to the MDP to finance more complex infrastructure projects. This experience shows the importance of sequencing project components according to the borrower's speed of institutional learning. As the Brazil PAR points out, participating municipalities should eventually graduate from the MDP program, which is a transitory institutional mechanism, and begin to borrow from the capital market.

Municipal Development Projects in Urban Lending
The legacy of the World Bank's urban lending operations over the past two decades can be characterized as a series of paradigm shifts from (1) sites and services and slum upgrading projects for low-income areas, to (2) citywide infrastructure projects for selected cities, to (3) MDPs to reach numerous municipalities by encouraging competition among them. In the 1980s, the MDPs shifted urban project design from a complex supply-driven (top-down) approach to a demand-driven (bottom-up) approach that provides a large number of municipalities with access to credit they can use to finance their own investment projects.

The Paraná Market Towns Development Project in Brazil (Loan 2343, approved in 1983) and the First Municipal Development Project in the Philippines (Loan 2435, approved in 1984) were the first MDPs approved in the early 1980s. In Brazil, the Bank subsequently undertook an MDP for the state of Santa Catarina (Loan 2623, approved in 1983), and continued its operations in Paraná with a second MDP in that state (Loan 3100, approved in 1989) and an MDP in the state of Rio Grande do Sul (Loan 3129, approved in 1989). Three more states, Minas Gerais (Loan 3639), Ceará (Loan 3789), and Bahia (Loan 4140), are now implementing MDPs with loan amounts ranging from US$100 million to US$150 million. More than 2,100 municipalities come under the purview of these five MDPs in Brazil.

In the Philippines, a second MDP (Loan 3146) was approved in 1989 and was followed by a third MDP (Loan 3455, approved in 1992) to meet the strong demand for financing among the municipalities in that country. A fourth project, the Local Government Finance and Development Project (LOGOFIND), was approved in 1999, with a proposed loan amount of US$100 million.

Objectives, Scope, and Approaches to the Study
Objectives
The objectives of this study are to assess (1) the impacts of MDPs on the institutional capacity of local governments for fiscal and financial management, and for planning and implementation of investment programs; (2) whether the direct impacts on the beneficiaries were as anticipated by the projects; and (3) the indirect (longer-term) impacts on the development of local economies, focusing on employment and income generation in the participating municipalities.

Scope
The study evaluates the impacts of the first and second MDPs in the Philippines (loans 2435 and 3146), and the MDPs in the states of Paraná and Rio Grande do Sul (loans 3100 and 3129). These four successful projects provide a rich basis for study and a rare opportunity to extract lessons about the institutional learning process over an extended period of time.

Approaches
The study assesses impacts at two levels: the municipal level and the beneficiary (firm and household) level. At the municipal level, it analyzes municipal finance data collected in Brazil and the Philippines and a sample survey of mayors in Rio Grande do Sul. It documents impacts on financial autonomy; local revenue generation; cost recovery; creditworthiness; planning, budgeting, and accounting practices; project preparation and implementation; and technical skills of staff. The historical data allow for comparison of conditions before and after the project. The cross-sectional data for both participating and nonparticipating municipalities also allow for comparison of fiscal and financial performance with and without the projects.

At the beneficiary level, the study analyzes survey data from the two case study municipalities in the Philippines in order to assess the impacts of MDP-financed public markets (the project choice of most participating municipalities) on employment creation and income generation, and evaluate their indirect
impacts on local economic development. The data allow comparison of the conditions before and after the projects, and of the impacts with and without the projects. The documented impacts of the projects include job creation; income generation; increases in land and real property values; changes in the quality of life as a result of basic services such as street paving, water supply, and garbage collection; time savings from efficient commuting; and better access to infrastructure services.

**Methods and Data**

The study uses six evaluation instruments: (1) review and analysis of project implementation data in the municipalities and implementation agencies; (2) interviews with government officials and nongovernmental organizations; (3) interviews with beneficiaries and site visits; (4) municipal finance data collected for all municipalities in the two states in Brazil and two provinces in the Philippines; (5) a survey of mayors of 26 municipalities in Rio Grande do Sul regarding the project’s impact on local capacity building; and (6) sample surveys of stallholders and shopowners in two municipalities in the Philippines, constituting an experimental and a control group. (More details on data collection are in Annex 1.)

At both the municipal and beneficiary levels, the study was designed to contrast and compare project impacts on the participating municipalities (experimental group) with the nonparticipating municipalities (control group)—a with versus without project evaluation approach. In addition, the data document the initial conditions and the outcomes and impacts after project implementation—a before versus after project approach.²
Evaluation Logic: Instruments and Expected Impacts

In Brazil, the second MDP in Paraná and the first MDP in Rio Grande do Sul were prepared concurrently by the same project team, using identical project objectives and design. The projects had four objectives: (1) to increase the institutional capacity of municipalities and state urban development agencies to plan, finance, and execute investment programs; (2) to improve the fiscal and financial management capacity of municipalities; (3) to provide basic economic and social infrastructure in urban areas; and (4) to improve targeting of urban programs to lower-income populations. These objectives were to be achieved through three components: (1) creation of an urban development fund providing a long-term line of credit to municipalities; (2) establishment of strict municipal creditworthiness and management improvement standards as conditions for allowing local governments to participate in the fund; and (3) on-lending to municipalities to finance infrastructure investments such as street improvements, and community facilities such as health posts and daycare centers.

In Paraná, the state government’s Secretariat of Urban Development had overall project responsibility for Paraná MDP II (known locally as the PEDU project, the name used in the rest of this volume). The Paraná Municipal Assistance Foundation handled day-to-day project management. In Rio Grande do Sul, the MDP (known locally as the PIMES project, the name used in the remainder of this volume) was executed by the State Development Bank, which later merged with the State Commercial Bank.

In the Philippines, the Second Municipal Development Project (MDP II) was an extension of MDP I to different regions, using identical project objectives and design. Its objectives were to (1) establish a municipal development fund to provide local governments with direct access to long-term development finance; (2) establish a national-level technical intermediary, the Central Project Office; (3) strengthen local technical and financial capacity for project implementation and service management through a training program; and (4) improve local fiscal performance through the Real Property Tax Administration (RPTA) program. The project had five components: (1) improvement of basic infrastructure services such as water supply, sanitation, roads, drainage, and public markets; (2) upgrading of various maintenance activities; (3) upgrading of real property tax records to improve tax collection; (4) training of local government staff; and (5) technical assistance for project implementation and for local budgeting and fiscal administration.

In the Philippines, the Department of Public Works and Highways (DPWH) was the lead agency for the projects. The Central Project Office carried out project implementation under the DPWH. The Department of Finance managed the municipal development fund, and the department’s Bureau of Local Government Finance administered the RPTA programs. The Local Government Academy implemented the municipal...
training program under the Department of the Interior and Local Government.

**Main Project Instruments and Expected Impacts**

The MDPs in Brazil and the Philippines were almost identical in their objectives and design, with some variations in implementation strategy. In Brazil, implementation took a wholesale, statewide approach to the financial reform program to cover as many municipalities as possible, using technically simple investment projects such as street paving, which served as the entrée for participation in the reform program. In the Philippines, implementation took a more selective approach, focusing on the smaller number of municipalities that were eligible to participate in the program, and allowing revenue-generating investment projects such as public markets. In both countries, the programs had two main instruments: fiscal and financial reform, and investment programs.

**Implementing investment projects financed by the Municipal Development Fund enhanced the institutional capacity of local governments.**

In the Philippines, as well, OED’s performance audits confirmed that the participating municipalities improved their fiscal and financial performance significantly. The projects in the Philippines also required an explicit financial reform package similar to the financial action plan in Brazil. In the Philippines, however, the RPTA program was implemented by a unit in the Department of Finance.

**Fiscal and Financial Reform Package**

In both Brazilian states, OED’s performance audits confirmed that the projects improved the fiscal and financial management capacity of participating municipalities. The project design required strict municipal creditworthiness and management improvement standards as conditions for allowing local governments to participate in the program. To apply for a loan, a municipal government had to submit a reform package consisting of a financial action plan analyzing the municipality’s debt servicing capacity (with revenue and expenditure projections) and demonstrating the project’s eligibility for financing, based on required technical standards. The package also had to present a plan for institutional development, including training and technical assistance needs. The financial action plan served, in this way, as the key instrument for financial and fiscal reform. In addition, the requirement that institutional reform be carried out before physical investments has been an effective way of minimizing possible implementation delays and cost-recovery problems.

**Capacity Building Through Investment Programs**

In both Brazil and the Philippines, the preparation and implementation of investment projects financed by the Municipal Development Fund served as a second major instrument for enhancing the institutional capacity of local governments. OED’s performance audits confirmed that the projects in both countries achieved their objective of increasing the institutional capacity of municipalities and the government’s urban development agencies to plan, finance, and execute investment programs. The projects gave officials of participating municipalities the opportunity to learn by doing in all phases of project preparation and implementation—from identification, to appraisal, to completion. In addition to improving their fiscal and financial management through the reform package, the municipalities learned by experience in every phase of the project cycle: the feasibility study; economic and financial analysis for cost recovery; and technical analysis for engineering design, procurement, and construction work. Furthermore, by using computers funded under the project, many municipalities were able to streamline payroll, cadastre, accounting, and budget operations and improve overall administrative efficiency.

**Expected Development Impacts**

The study documents empirically the impacts of MDPs in the following areas:

- Fiscal and financial performance of local governments, focusing on fiscal autonomy, local revenue generation, cost recovery, and budget balance (Chapter 3)
- Local governments’ institutional capacity for investment planning, budgeting, accounting, and project preparation and implementation (Chapter 4)
- Local economic development, focusing on income and employment generation and the quality of urban services (Chapter 5).
Impacts on Municipal Fiscal and Financial Management

MDP participant municipalities in Brazil and the Philippines outperformed nonparticipants in municipal financial autonomy, direct and indirect cost recovery, and balancing their budgets. Furthermore, the deeper the MDP finance, the greater the impact on participants. As a result of the project, participant municipalities came to rely on their own revenues to a greater extent than nonparticipants, and succeeded in mobilizing more of these revenues to finance additional projects. Property tax collection—a focus of MDP instruments and technical assistance—responded well to the project. Participant municipalities also did much better in direct cost recovery through the levying and collection of betterment charges. They were also more successful than others in balancing their budgets, which helped increase their creditworthiness. Thus, extensive municipal finance data point to significant MDP impact on the strengthening of municipal fiscal and financial management.

This chapter presents findings on the impacts of the MDP financial reform programs on municipal finance.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Brazil</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paraná</td>
<td>Rio Grande do Sul</td>
</tr>
<tr>
<td>Total population 1996 (millions)</td>
<td>9.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Urban population as share of total (percent)</td>
<td>77.9</td>
<td>78.6</td>
</tr>
<tr>
<td>GDP per capita PPP 1991 (US$)</td>
<td>5,138</td>
<td>5,168</td>
</tr>
<tr>
<td>All municipalities, 1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>371</td>
<td>426</td>
</tr>
<tr>
<td>Pop. &gt;250,000</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Pop. 50,000–250,000</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>Pop. 10,000–50,000</td>
<td>162</td>
<td>125</td>
</tr>
<tr>
<td>Pop. 2,000–10,000</td>
<td>177</td>
<td>248</td>
</tr>
<tr>
<td>Pop. &lt;2,000</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>MDP project municipalities^</td>
<td>364</td>
<td>152</td>
</tr>
<tr>
<td>Average pop. per municipality</td>
<td>24,269</td>
<td>22,597</td>
</tr>
</tbody>
</table>

Note: PPP = purchasing power parity.
a. Aggregate of cities (82) plus municipalities (1,528).
b. Project municipalities are defined as those that participated fully in both MDP investment and technical assistance components.
Source: MDP Impact Evaluation Study database; Brazil census 1996; World Development Indicators 1998, CD-ROM; Philippines MDP study team.
Table 3.1 summarizes key characteristics of the four project areas and their composite municipalities.

Altogether, the projects involved 537 municipalities. Then, as now, municipalities in Brazil were much smaller, more varied in population size, and much more numerous than their Philippine counterparts. Both states in Brazil are as urbanized as the country itself, while the Philippine provinces included in the study are more urbanized than the country as a whole because of their proximity to Manila. While the Brazilian states enjoy levels of GDP per capita similar to the national average, levels in the Philippine provinces are above the national average. The lower levels of income in the Philippines, nevertheless, have implications for municipal finance.

**Municipal Financial Autonomy versus Revenue Sharing**

This section and those that follow focus on two perspectives of impact evaluation. First, the performance of participant municipalities is compared with that of nonparticipant municipalities. Second, performance is reviewed before and after the projects. For the latter, 1990 is the before-project benchmark, and 1996 is the after-project year.

To evaluate the impact of MDPs on financial autonomy, the study team examined the collection of current revenues from sources under the control of municipalities. These own revenues come from levying and collecting local taxes and charges that municipalities can control, independent of higher levels of government. This evaluation compares a municipality’s own revenues with its total current revenues, the latter made up of own revenues plus current transfers from higher levels of government in the form of revenue sharing. Because total current revenues have only these two elements, conclusions about increased own revenues automatically imply declining current transfers, and vice versa.

Using the share of municipalities’ own revenues in total current revenues as an indicator of financial autonomy, the analysis shows evidence that MDP municipalities in both countries performed better than their nonparticipating counterparts (figure 3.1 and table 3.2). In Brazil, participants’ own revenue shares rose, while nonparticipants saw their shares decline. In the Philip-
pines, all municipalities’ shares declined as a direct result of government policy—the 1991 Local Government Code—which increased revenue sharing from 20 to 40 percent. Nevertheless, participant municipalities in the Philippines saw their shares erode less than nonparticipants over the life of the projects. As a corollary, participant municipalities became less dependent on fiscal transfers after the projects, unlike nonparticipants.

Another indicator, municipal own revenues per capita, offers additional evidence that greater municipal financial autonomy can be achieved through municipal development projects (figure 3.2 and table 3.3). These data show that:

- In both Brazil and the Philippines, MDP participants succeeded in increasing municipal own revenues per capita more rapidly than did nonparticipants. Project impact was greater in the Philippines, where these revenues grew faster than in Brazil. Nevertheless, the level of own revenues per capita in the Philippines—with its lower level of income—is still below that of Brazil.

- Before the projects in 1990, and in both countries, participant and nonparticipant municipalities had similar levels of own revenue per capita. By project completion in 1996, participant municipalities had higher levels than nonparticipants (table 3.3). Besides confirming project impacts, this points to a fairly even playing field for municipalities at the outset, a feature particularly striking in Rio Grande do Sul. It precludes the notion that self-selection might have induced only better-performing municipalities to participate in the projects. But the results for Laguna may not be reliable, since that province had only four participants.

The data point to significant project impacts on the ability of participant municipalities to achieve greater fiscal autonomy.

**TABLE 3.3: IMPACTS ON OWN REVENUE MOBILIZATION**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (Paraná)</td>
<td>24.81</td>
<td>42.50</td>
<td>Participants (Bulacan)</td>
<td>4.51</td>
<td>8.83</td>
<td></td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>38.25</td>
<td>64.78</td>
<td>Participants (Laguna)</td>
<td>6.80</td>
<td>13.68</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>36.96</td>
<td>48.15</td>
<td>Nonparticipants (Laguna)</td>
<td>3.24</td>
<td>5.76</td>
<td></td>
</tr>
</tbody>
</table>

*Note: See table 3.2. RGS = Rio Grande do Sul.*

*Source: MDP Impact Evaluation Study database.*
FIGURE 3.3: IMPACTS ON PROPERTY TAX COLLECTION

Thus, the data point to significant MDP impacts in helping participant municipalities to achieve greater fiscal autonomy. Evidence of this includes rising shares of municipal income from municipal own revenues and from municipal efforts to raise more of their own revenues from citizens. MDP projects provided important incentives for municipalities to move in this direction. Mayors understood that more municipal revenue meant greater access to MDP (and other) credit and greater ease in paying off loans. MDP project design included requirements that mayors make efforts in this direction in order to qualify for loans and technical assistance, to encourage municipalities develop and strengthen instruments to raise more tax revenues (see Chapter 4).

Own Revenue Generation Through Property Taxes

One of the main sources of municipal own revenues in both countries is taxes levied on residential, commercial, and industrial properties in urban areas. For the municipalities in Brazil, such property tax collections typically accounted for 15 to 25 percent of all own revenues. In the Philippines, the range was 26 to 33 percent. MDP project design in both countries focused specifically and explicitly on improving property tax collection, and provided technical support for local administrations to improve property tax administration.

We therefore looked at the performance of property tax collection as an indicator of municipal effort to enhance fiscal autonomy and improve creditworthiness. Through this indicator, per capita collection in both Brazil and the Philippines was found to respond positively to MDP project interventions. While property tax per capita increased for all municipalities in both countries during the 1990–96 period, it increased more rapidly in MDP participant municipalities—except for Paraná—than in nonparticipants (figure 3.3 and table 3.4).

A review of property tax per capita as an impact indicator highlighted the following issues:

- Participant municipalities in both countries—except those in Paraná—improved property tax collection during 1990–96 more than nonparticipants did (figure 3.3). In Rio Grande do Sul, where property tax per capita increased more than fivefold over the life of the MDP, the performance of participants was outstanding.

### TABLE 3.4: IMPACTS ON PROPERTY TAX COLLECTION

<table>
<thead>
<tr>
<th></th>
<th>Property tax per capita (constant 1996 US$)</th>
<th>1990</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>1.87</td>
<td>6.72</td>
<td></td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>2.63</td>
<td>17.02</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>1.96</td>
<td>10.48</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Bulacan)</td>
<td>1.31</td>
<td>1.94</td>
<td></td>
</tr>
<tr>
<td>Participants (Laguna)</td>
<td>2.43</td>
<td>4.54</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (Laguna)</td>
<td>1.16</td>
<td>1.53</td>
<td></td>
</tr>
</tbody>
</table>

Note: See tables 3.2 and 3.3. RGS = Rio Grande do Sul.

Source: MDP Impact Evaluation Study database.
These results reflect work done through MDP financial action plans in Brazil that consistently emphasized improvements in property tax collection as a key to municipal eligibility to participate in the project. Similarly, in the Philippines, the favorable results reflect the successful Real Property Tax Administration (RPTA) program supported by MDP.

- The weaker performance of Paraná compared with Rio Grande do Sul had three causes: (1) less rigorous control of project conditionalities that required improved tax performance through financial action plans; (2) participants in Paraná were second-time MDP participants, and property tax conditions that the previous MDP did not require may have lacked credibility; and (3) MDP project leverage in Paraná was weaker—the 100 percent coverage of municipalities precluded the possibility of excluding municipalities that did not comply with conditions of the financial action plan.

Study findings thus point to significant MDP impacts on property tax performance at the municipal level. This result was expected, since it went to the heart of the original project designs. In both countries, the projects focused on property tax as the principal instrument for raising local revenue and increasing the financial autonomy of municipalities. A challenge for the future will be to replicate this impact with other key revenue items, such as the municipal service tax in Brazil.

**Direct Cost Recovery**

In addition to indirect cost recovery through stimulating and assisting the collection of local taxes, MDPs also encouraged municipalities to pursue direct cost recovery from program investments. In Brazil, this was done by levying betterment charges on families that directly benefited from the investments. In the Philippines, MDP operations aimed at direct cost recovery by allowing municipalities to borrow and invest in revenue-generating services such as local public markets. This section of the report discusses the Brazilian case. To evaluate MDP project impacts in Brazil, the study team examined the performance of per capita betterment charges levied and collected at the municipal level.

The team found that cost recovery performance of participant municipalities in Rio Grande do Sul was much better than that of municipalities not participat-

### Figure 3.4: Impacts on Direct Cost Recovery in Brazil

![Graph showing impacts on direct cost recovery in Brazil](image)

**Source:** MDP Impact Evaluation Study database.

### Table 3.5: Impacts on Direct Cost Recovery in Brazil

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (Paraná)</td>
<td>1.27</td>
<td>0.61</td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>1.37</td>
<td>3.10</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>1.25</td>
<td>1.56</td>
</tr>
</tbody>
</table>

**Note:** See tables 3.2 and 3.3. RGS = Rio Grande do Sul. **Source:** MDP Impact Evaluation Study database.
served before the project. The causes highlighted above for the weaker performance of Paraná municipalities also apply here. Since it was the second operation in Paraná, MDP II could not have the same demonstration effect on municipalities as did the first-time MDP project in Rio Grande do Sul, especially when the first MDP project in Paraná did not have the same cost-recovery conditionalities. Among the specific results: 28 participant municipalities in Paraná that had collected betterment charges in 1990 had stopped collecting them altogether by 1996.

This evidence points to significant MDP impacts on increased direct cost recovery through betterment charges. A necessary condition for such an achievement is for access to MDP funding to be explicitly conditioned on a municipality’s progress toward adopting and implementing direct cost recovery. The fulfillment of this condition also needs to be closely monitored by the project team during implementation. The varying performance of participant municipalities in Paraná and Rio Grande do Sul points to the need to have these conditions correctly in place at the time of a municipality’s first contact with a project.

In leveraging improvements to direct cost recovery through MDP operations, project designers need to consider, in particular, the political aspects of betterment charges. Local mayors often complain that these charges are unpopular and difficult to administer fairly. Local councils must also formally approve them case by case, a process that can involve lengthy political negotiations with opposition councilors.

Even when betterment charges are approved and levied effectively, however, they still account for only a very small proportion of own revenues, not more than 5 percent on average. Yet such charges can help recover 70 to 80 percent of the initial outlay for an investment project, with the remaining costs covered indirectly through property taxes.

### Budget Surplus and Deficit

Given that municipalities were required to remain creditworthy to have continued access to MDP funding, a key hypothesis of the study was that participant municipalities would be more creditworthy than nonparticipants. The study team therefore looked for underlying evidence of the municipalities’ changing debt capacity, since this would affect their access to credit not only from the MDP, but also from other sources. It was not possible to construct a precise indicator of creditworthiness—such as a municipality’s net savings or primary surplus—since separate data on periodic debt service payments were not available for all municipalities in the study population. For this reason, the study used a simpler proxy indicator, looking at municipal budget surplus or deficit data over time to capture the general direction of changes in the budget situation. This was defined as total municipal current revenues minus total municipal current expenditures, which included debt service payments. Although not a complete and accurate indicator of creditworthiness—especially for municipalities with a previous history of borrowing—this budget surplus or deficit indicator nevertheless points to some evidence of municipalities trying to balance their books as a result of MDPs.

The indicator shows clearly, for instance, that participants performed better in attempting to balance their budgets than did nonparticipants (figure 3.5 and table 3.6).

The study highlighted two main findings concerning municipal budget surpluses and deficits:

- Despite deterioration of the financial balance of all municipalities in Brazil, there is evidence that the MDPs helped to slow the decline. Participants in Rio Grande do Sul did not suffer the serious setbacks experienced by nonparticipants; neither did Paraná participants, although the effect of the project was smaller. Thus, MDPs

<table>
<thead>
<tr>
<th>TABLE 3.6: IMPACTS ON MUNICIPAL BUDGET SURPLUS OR DEFICIT</th>
<th>Budget surplus(+) or deficit(-) as share of total revenues (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Brazil 1990</td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>+0.1</td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>+0.8</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>+2.8</td>
</tr>
</tbody>
</table>

Note: Budget surplus or deficit = total current revenues minus total current expenditures (including debt service payments).

Source: MDP Impact Evaluation Study database.
helped participant municipalities to slow the negative trend toward increased deficits.

- In the Philippines, the contrasting trends of participant and nonparticipant municipalities are even clearer. While Bulacan participants actually moved out of deficit and into surplus between 1990 and 1996, the large surplus of nonparticipating municipalities in Laguna was almost completely wiped out by 1996. These results reflect efforts by participant municipalities to remain creditworthy in order to gain access to further MDP and other funding.

We therefore find that participating in an MDP can help a municipality to reduce its deficit, if not develop a fiscal surplus, and that MDPs provide an important incentive in this direction.

Financial Deepening

For municipalities in Brazil, the study examined how different levels of MDP capital investment in relation to total municipal investment at the initial phase of project implementation affected the financial performance of participating municipalities. A lack of data on total investment prevented a similar analysis for the Philippine municipalities. Applying a simple concept of project leverage to the case of Brazil, it was hypothesized that the degree of project impact would rise with the share of MDP funding in a municipality’s total investment program. Thus, a municipality more dependent on MDP funding would be expected to be more responsive to the requirements of the MDP reform program and show stronger impacts, and vice versa.

To measure the degree of municipal participation in the MDP, a financial depth indicator was constructed. This indicator measured MDP investment funding at the municipal level as a share of a municipality’s total 1990–92 investment (funded from all sources, including MDP and own revenues). From empirical estimates of this indicator, participant municipalities were grouped into three categories of financial depth: deep, greater than 50 percent; medium, 25 to 50 percent; and shallow, less than 25 percent.

In search of possible project impacts, the study team examined the own revenue performance of municipalities by degree of financial depth. With one important caveat, discussed below, participants with greater financial depth performed better than participants with more shallow participation in the projects (figure 3.6 and table 3.7).

In financial deepening, therefore, the study found that:

- As measured by the increase in the average level of municipal own revenues per capita, deep participant municipalities in both Paraná and Rio Grande do Sul performed better than those classed as medium. This is because deep participant municipalities were more subject to the policy influence of the projects and more likely to play according to

Evidence points to greater project impacts where participant municipalities are more closely engaged in the projects.

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- As measured by the increase in the average level of municipal own revenues per capita, deep participant municipalities in both Paraná and Rio Grande do Sul performed better than those classed as medium. This is because deep participant municipalities were more subject to the policy influence of the projects and more likely to play according to
the rules than were medium or shallow participants. This outcome is a product of the leverage that a project can exercise over a municipality that is greatly dependent on the project as its main source of funding.

- The contradictory outcome for shallow participant municipalities in Rio Grande do Sul, which appear to have outperformed all others, results from a skewed distribution in which a few small municipalities reported very high levels of own revenues per capita in 1996, thus significantly raising the mean observation for that year. Own revenues per capita is, nevertheless, a particularly important impact indicator in this analysis, given its demonstrated robustness in the earlier with/without project evaluation.

Evidence gathered by the study team, therefore, points to greater project impacts where participant municipalities are more closely engaged in the projects. This finding coincides with a notion held across many lending sectors in the Bank: that greater project leverage can lead to more significant impacts on project outcomes. The observed result is consistent with the hypothesis that the more a municipality is involved with and dependent on an MDP, the greater its chances of responding to and adopting MDP precepts. It is worth noting that the federal government of Brazil provided no subsidies to participating municipalities. In the Philippines, the property tax improvement component (RPTA) was part of the assistance program implemented by the Department of Finance.

### TABLE 3.7: IMPACTS ON OWN REVENUES BY DEGREE OF FINANCIAL DEEPENING IN BRAZIL

<table>
<thead>
<tr>
<th>Own revenues per capita (constant 1996 US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
</tr>
<tr>
<td>Medium</td>
</tr>
<tr>
<td>Shallow</td>
</tr>
</tbody>
</table>

Note: See tables 3.2 and 3.3. Financial depth is defined as the share of total 1990–92 municipal investment accounted for by MDP funding. The financial depth categories are: deep > 50 percent; medium 25–50 percent; shallow <25 percent.

Source: MDP Impact Evaluation Study database.

### FIGURE 3.6: IMPACTS ON OWN REVENUES BY DEGREE OF FINANCIAL DEEPENING IN BRAZIL

<table>
<thead>
<tr>
<th>Percent change, 1990–96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraná</td>
</tr>
<tr>
<td>Deep</td>
</tr>
<tr>
<td>Medium</td>
</tr>
<tr>
<td>Shallow</td>
</tr>
</tbody>
</table>

Source: MDP Impact Evaluation Study database.

<table>
<thead>
<tr>
<th>Percent change, 1990–96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Grande do Sul</td>
</tr>
<tr>
<td>Deep</td>
</tr>
<tr>
<td>Medium</td>
</tr>
<tr>
<td>Shallow</td>
</tr>
</tbody>
</table>

Source: MDP Impact Evaluation Study database.
Impacts on Local Government Capacity Building

Direct observation of selected municipalities highlights their awareness of the improvements made under the projects. Nearly half the institutional development interventions in Rio Grande do Sul were to strengthen local tax administration. Among the different kinds of interventions, participant municipalities valued most highly those aimed at making resource management more efficient and improving the management of investment projects, including procurement. Professional training was also highly valued. In techniques and procedures, municipalities reported that the project helped them to better handle information technology and community participation. Their awareness of these advances had an important side effect: successful participants openly promoted the project and its principles among municipalities still not involved.

This chapter reports the impact evaluation findings for municipalities participating in the MDP known as PIMES in Rio Grande do Sul. The evaluation was implemented in two stages: (1) field visits by team members to 26 municipalities during August–December 1997; and (2) a follow-up telephone/fax survey of the same municipalities during January–March 1998. The municipalities did not constitute a random sample; they were selected from those that had fulfilled all aspects of their loan agreements.

The PIMES team selected municipalities for these studies by taking into account the following factors: (1) different population-size groups; (2) the wide range of MDP institutional development actions undertaken; and (3) broad geographical coverage across the state of Rio Grande do Sul. The aim was to evaluate a group of municipalities that had participated effectively in the MDP’s institutional development component, but were also representative of municipalities throughout Rio Grande do Sul. Twenty-six was the maximum number that could be visited in the field, given the study’s budget.

Field Surveys
Members of the study team made one- or two-day visits to each municipality to meet with local officials and collect basic data on (1) municipal administration; (2) urban planning; (3) local taxes; and (4) municipal infrastructure. To compile the data, the team used standard checklists to apply to all municipalities. In addition, they interviewed municipal officials using a questionnaire with 70 open-ended questions on the following topics:

- Profile of the city
- Real estate cadastre
- Computerization
- Municipal tax code
- Urban master plan
- Training and technical assistance.
Altogether, the study identified 126 institutional development interventions sponsored by PIMES in these municipalities. Figure 4.1 and table 4.1 summarize these interventions by category (administrative strengthening, taxation, urban management, and other).

The survey identified taxation as the single most common type of institutional development intervention, most often delivered by means of technical assistance. These interventions were:

- Administrative strengthening (human resource training, internal regulations, payroll, organization chart)
- Taxation (accounting, cadastre, control of assets, tax reform, tax collection, tax legislation, tax inspection)
- Urban management (land use legislation, limits of urban area, building codes, land use zoning, aerial photography, mapping, database management)
- Other (mainly computer hardware and software).

To update information from the field surveys and assess project impacts from the point of view of municipal officials, the PIMES team followed up during January–March 1998 with a simple questionnaire faxed to each of the 26 municipalities. To complement the earlier open-ended questions, the fax questionnaire, prepared jointly with the December 1997 audit mission, asked municipal respondents to rate the quality—ranging from highly satisfactory to very poor—of MDP impacts in 13 areas. These included local tax collection, betterment charges, procurement practices, computerization, and community participation.

The remainder of this chapter summarizes the impacts of MDPs as seen from the perspective of participant municipalities. Each section focuses on a distinct area of intervention.

**Direct and Indirect Cost Recovery**

The survey asked participant municipalities to give their opinions about the impacts of the MDP on (1) their ability to mobilize their own revenues more efficiently; (2) the effectiveness of levying betterment charges for direct cost recovery; and (3) the effectiveness of property taxation as an indirect means of recovering the cost of projects. The results, summarized in figure 4.2 and table 4.2, included these important findings:

- Municipal officials were in nearly unanimous agreement that the impacts of the project were positive.
- The majority thought the project had a very positive impact (highly satisfactory or satisfactory rating) on own revenue mobilization and property tax collection.
- Most thought the project had a positive but slightly more modest impact on betterment charges.
Overall, these results indicate a satisfactory project impact on cost recovery in the view of municipal participants. This finding applies to municipalities of all sizes, although small and medium municipalities were more likely to report highly satisfactory impacts than larger ones. These results are particularly significant given that the MDPs were implemented during a period of intensive financial change as monetary stabilization took hold in Brazil. Within this difficult context, MDP municipalities made successful efforts to increase their own revenues.

Local Financial Management

MDP municipalities were asked to rate project impact on their capacity to (1) undertake financial planning; (2) mobilize funding from sources other than the MDP itself; and (3) manage their own resources more efficiently (figure 4.3 and table 4.3). A large majority of municipal officials reported that:

- MDP projects had a positive impact on municipal financial planning and management.
- Management of municipal resources improved the most, with 84.7 percent of officials reporting highly satisfactory or satisfactory outcomes.

These results point to municipalities changing from mere public service provision to modern administration that seeks to promote and leverage local economic development. As examples of steps toward better management, municipalities most often mentioned:

- More reliable management reports, resulting in better internal controls
- Streamlining of information flow through management information systems, enabling better-informed management decisions
- Better understanding of tax laws and regulations, and hence better relationships with regulators
- Greater emphasis on municipal planning
- Rigorous control over revenue collection.

Successful participants openly promoted the project and its principles among municipalities still not involved.

### TABLE 4.2: IMPACTS ON MUNICIPAL COST RECOVERY

<table>
<thead>
<tr>
<th>Activity</th>
<th>Highly sat.</th>
<th>Sat.</th>
<th>Modest</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own revenue mobilization</td>
<td>11.5</td>
<td>53.9</td>
<td>23.1</td>
<td>–</td>
<td>3.8</td>
<td>7.7</td>
</tr>
<tr>
<td>Levying betterment charges</td>
<td>3.8</td>
<td>38.6</td>
<td>46.2</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td>Raising property taxes</td>
<td>15.4</td>
<td>42.4</td>
<td>30.8</td>
<td>3.8</td>
<td>3.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>


### FIGURE 4.2: IMPACTS ON MUNICIPAL COST RECOVERY


### FIGURE 4.3: IMPACTS ON MUNICIPAL PLANNING AND MANAGEMENT

Concerning their ability to manage investment projects, participant municipalities rated the impacts of MDP technical assistance on (1) the implementation of management control routines and (2) modernizing and streamlining of municipal management. Municipalities were also asked to rate the impact of MDP requirements and conditionalities on (3) procurement procedures; and (4) supervision of contractors. Figure 4.4 and table 4.4 summarize the findings.

Among the highlights:

• Most municipalities gave high ratings (highly satisfactory or satisfactory) to the impact of the technical assistance on the management of investment projects.
• The strongest impact was on the control of project implementation. Through the MDP, many municipalities learned to apply control systems to monitor the physical and financial progress of their investment projects.
• Municipalities reported favorable impacts on their ability to supervise the work undertaken by private contractors.
• The impact was not as great on procurement procedures; 73 percent of respondents reported that MDP impact on procurement was modest or less.

These results confirm what the PIMES team observed during its day-to-day management of MDP implementation. All participant municipalities, small ones in particular, underwent a major on-the-job learning experience as they received advice directly from PIMES staff or worked with consultants who helped them manage their investment projects more effectively. The MDP strategy in this regard was to provide municipalities with as much information as possible, including model procedures and techniques that they could use to help overcome their shortcomings.

Regarding the specific issue of procurement procedures, evidence of favorable MDP impacts also comes from routine reports of the municipalities' controllers, tribunals de contas. Tribunal reports over the 1990–96 period indicate that the incidence of errors by municipalities in procurement practices diminished significantly among MDP participants.

### Information Technology, Training, and Community Participation

The survey also sought the opinions of municipal officials on the impacts of three MDP instruments: (1) the use of information technology in the municipality; (2) professional training provided under the project; and (3) community participation in decisionmaking about investment projects. Their answers are summarized in figure 4.5 and table 4.5.

The key findings are as follows:

• Municipal officials were very enthusiastic about innovations in information technology provided...
through the MDP; nearly half of them rated MDP impacts in this area highly satisfactory.

- They also rated MDP training impacts positively, but not in the highest category.
- In regard to community participation, officials from all municipalities held positive, but more varied, views about MDP impacts.

With rapid innovation in computer hardware and software, the PIMES team encountered strong demand for assistance in this area. In many cases, the introduction of information technology even led to behavioral changes among municipal staff. Accustomed to obsolete procedures and routines, many of them were obliged to upgrade their skills to retain a valid professional role within the administration. This, in turn, led to increased demand for training programs, many of them provided under the MDP. The project offered a wide range of courses and programs, which were greatly appreciated by municipal administrators and their employees.

The positive results achieved in community participation took various forms. Some participation was through local community associations, and some through nongovernmental organizations. In cases of community facilities—daycare centers and health posts, for instance—financed through the MDP, a project requirement called for stakeholders to set up committees to help manage these facilities. For other projects, consultation more often took the form of merely keeping citizens informed of works planned and in progress. More still has to be done in the area of community participation, but the PIMES team believes that important first steps were taken under the MDP. OED’s performance audit in December 1997 was conducted as a participatory audit, which provided opportunities for the beneficiaries, including community representatives, to discuss project experiences with representatives from state and local government agencies in Paraná and Rio Grande do Sul. As documented in the performance audit, projects such as street paving, daycare centers, and health posts were implemented in poor communities, and their impacts on the welfare of the inhabitants were significant. These conclusions were confirmed at the participatory audit workshops.

Thus, the study confirms that the PIMES project had a major impact on the promotion of sustainable institutional development in the municipalities of Rio Grande do Sul. The project became a major development partner of municipalities during the 1990–96 period. It also became their only reliable source of funding; the survey identified the virtual drying up of ad hoc transfers from the federal and state governments.

The following advances were made in strengthening participating municipalities:

**Municipalities are changing from mere public service provision to modern administration that seeks to promote and leverage local economic development.**

---

**TABLE 4.5: IMPACTS ON COMPUTERIZATION AND TRAINING**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Municipal respondents (percent of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly sat.</td>
</tr>
<tr>
<td>Information technology</td>
<td>42.3</td>
</tr>
<tr>
<td>Professional training</td>
<td>27.0</td>
</tr>
<tr>
<td>Community participation</td>
<td>15.4</td>
</tr>
</tbody>
</table>

*Source: PIMES Impact Evaluation Survey of 26 MDP municipalities.*

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**FIGURE 4.4: IMPACTS ON MUNICIPAL MANAGEMENT OF INVESTMENT PROJECTS**

*Source: PIMES Impact Evaluation Survey of 26 MDP municipalities.*
• Fiscal adjustment and increasing own revenues at the municipal level
• More intense contacts among municipalities, private companies, and the community
• More efficient and entrepreneurial municipal administrations
• More highly valued municipal employees
• More attention to the environment.

Apart from these favorable results, the survey demonstrated that municipalities were aware of the progress made as a result of the project. More generally, increased capacity at the municipal level helped local administrations to seek new initiatives and successfully carry out additional projects. This finding was true, regardless of city size or location within the state.

Municipal awareness itself had an important side effect. Successful participant municipalities, whose officials were conscious of the progress being made under PIMES, became staunch promoters of the project concept among municipalities that had yet to sign on.

The achievements of the PIMES project came at a time of major change and difficulties for municipalities in the State of Rio Grande do Sul. The logical conclusion is that by helping municipalities to become economically stable, PIMES contributed to a more balanced approach to economic development at all levels.

As a development program, the PIMES project in Rio Grande do Sul has reached maturity, and today constitutes a reliable source of funding for municipal development. Moreover, the project has become a model for similar programs elsewhere in Brazil—the States of Minas Gerais and Bahia—and in other countries.

**FIGURE 4.5: IMPACTS ON COMPUTERIZATION AND TRAINING**

![Graph showing impacts on computerization and training](image)

*Source: PIMES Impact Evaluation Survey of 26 MDP municipalities.*
Most of the municipal development projects in the Philippines were revenue-generating enterprises such as public markets, bus terminals, and slaughterhouses. Under MDP I, 36 out of 42 participating municipalities financed a public market; under MDP II, 30 out of 35 did so. OED’s performance audits have confirmed that the impacts of such projects on local economies were significant, especially for small and poor municipalities. For example, Pulilan, a municipality in Bulacan Province, was in the lowest income class before it financed a public market through MDP. By 1995, when the project was completed, the municipality had moved up to the second-highest income class, and the living standard of its 60,000 people had risen significantly. During 1991–95, the income of the municipal government rose almost fourfold, from 7 million to 25 million pesos.

This chapter reports the results of a study that compared the impacts of an MDP-financed public market in Pulilan with conditions in Guiguinto, a municipality in the same province that did not participate in the MDP program. The survey compared a random sample of 60 stallholders in the Pulilan public market (experimental group) with a random sample of 60 stallholders from several locations in Guiguinto (control group). Each sample included stalls selling meat, poultry, and fish; fruits, vegetables, and grains; and manufactured goods. A comprehensive but simple questionnaire (Annex 5) was used to gather information about location history, extent of markets, employment characteristics, commuting, sales, expenses, income, and the quality of infrastructure services at the market. The questionnaire was designed to capture changes over time, from 1993 when the market opened to 1998 when the survey was conducted. The survey also included the owners of 15 shops near the market, to capture the project’s indirect impacts on the development of the local economy. The findings reported below highlight the differences between Pulilan’s experience and that of Guiguinto. Also reported are the results of statistical tests showing the differences between the municipalities regarding increases in sales and income and improvements in the quality of infrastructure services at the market.

The Public Market in Pulilan

Until the MDP-financed public market was established in 1992, Pulilan had a traditional market (talipapa) near the municipal hall with about 20 vendors. When the public
market opened in the Cutcot area in 1993, local entrepreneurs quickly occupied its 170 stalls. Most of the vendors in the old market also moved there. Only two years later, using its own resources, the municipal government added 32 stalls to the market to meet increasing demand. In 1997, a second MDP loan financed 92 more stalls. As of August 1998, when the survey was conducted, the market had a total of 294 stalls. In addition to these fixed stallholders, on Saturdays about 300 transient vendors come to the market to conduct business.

The public market area has rapidly become a new business center in Pulilan. More than 40 new small enterprises have opened near the market, including large restaurants, drug stores, a gas station, rural banks, and gift shops. The market’s adjacent lot has become a busy transport center with a large fleet of tricycles for shoppers, and other types of vehicles. The market has had not only a direct impact on the welfare of the stallholders and Pulilan’s inhabitants, but also a significant indirect economic impact, creating transport and commercial linkages with the rest of the province and other parts of the country. The survey findings reported below support this conclusion.

Guiguinto, which never participated in an MDP, has no markets comparable to the one in Pulilan. The municipality has one privately established market and several small, informal markets. Conditions in the municipality today are similar to those of Pulilan before the project was implemented.

**Survey Results**

Of the 60 stallholders in each sample, 16 (27 percent) relocated to the public market in Pulilan, while only 5 (8 percent) moved in Guiguinto, indicating that the Pulilan project triggered changes in location that otherwise may not have occurred. The stallholders in Pulilan were comparable to those in Guiguinto in number of employees, number of female workers, hours worked, and monthly income (table 5.2). On average, at each stall about two people (one female) worked for 11 hours a day, and the owner’s monthly income was about 18,000 pesos (about US$430).

**Change in Sales and Income**

Table 5.3 shows that monthly sales and net income (after expenses) of stallholders in Pulilan have more than doubled since they started business in the public market. The stallholders in Guiguinto, in small, informal markets with poor infrastructure, had only a slight increase in

| TABLE 5.1: LENGTH OF TIME IN BUSINESS AT TWO PHILIPPINE MARKETS, BY YEAR STARTED (NUMBER OF STALLHOLDERS) |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Pulilan           | 11 | 17 | 7 | 8 | 10 | 7 |
| Guiguinto         | 16 | 4 | 4 | 5 | 11 | 20 |

Source: MDP Impact Evaluation Study database.

| TABLE 5.2: CHARACTERISTICS OF STALLHOLDERS (AVERAGE VALUE) |
|-------------------|-------------------|-------------------|
| Pulilan | Guiguinto | All |
| Number of workers | 1.97 | 1.70 | 1.83 |
| Number of female workers | 1.17 | 1.20 | 1.18 |
| Hours worked per day | 11.30 | 10.60 | 10.95 |
| Owner’s income per month (pesos) | 18,138 | 17,525 | 17,832 |

Source: MDP Impact Evaluation Study market survey.
sales and net income. This large disparity could reflect the length of time in business of the two groups (table 5.1). Twenty stallholders in Guiguinto started their businesses in 1997 without fixed business locations.

To statistically test this difference without such a bias, the average value of sales and average net income for each group (by length of time in business) was calculated, and the average annual increase in sales and net income was estimated. Based on this constructed data, the null hypothesis—that the average annual increases in sales and net income (in real terms) were the same between the stallholders in Pulilan and those in Guiguinto—can be rejected. The $t$ values were 2.7 and 2.0, respectively, at a 5 percent level of significance.

For those 16 stallholders in the Pulilan sample who moved to the public market from another location, the difference between their mean income at the previous location and that at the present location was statistically tested. The null hypothesis—that the mean income level was the same at the two locations—was rejected. The $t$ value was 2.4, at a 5 percent level of significance.

Therefore, the impact of the MDP-financed public market in Pulilan on the sales and income of the stallholders was significant and positive compared with the sales and income in Guiguinto, and also compared with the level of income at the previous location for stallholders who came to the market from another location.

**Commuting**

Table 5.4 shows the median commuting distance from home to the market and the median travel time for stallholders in Pulilan and Guiguinto. Although the travel distance in Pulilan is twice that in Guiguinto, the travel time is about the same for the two groups. This results from more efficient transport in Pulilan than in Guiguinto, including a large fleet of tricycles.

**Quality of Infrastructure Services**

The survey asked respondents to rate the quality of 12 infrastructure and municipal services, listed in table 5.5, at the time of the survey (1998), compared with the first year the stallholder started business at the market. Four quality criteria were used: excellent, good, fair, and poor. Table 5.5 shows, for each type of service, the proportion of respondents who rated its quality excellent or good. For all items but telephone, the quality of services in the first year at the market was better in Pulilan than in Guiguinto. In the case of the Pulilan public market, all services improved substantially over time except for public toilets. Any improvements in facilities in Guiguinto were small, and the quality of water supply, public toilets, ventilation, storage, and parking space declined during the period.

We tested the differences between proportions and rejected the null hypothesis that the proportions of quality ratings in Pulilan are the same as those of Guiguinto. The $t$ values range from 2.8 to 8.6, at the 5 percent level of significance (excluding 1.5 for telephone service, which was equally poor in both municipalities).

**Indirect Impacts**

**Market Linkages with Other Areas**

To evaluate the impact of the public market on the creation of transport and commercial linkages with other municipalities and regions, the survey asked where the goods sold by stallholders had originated and where their customers come from. Tables 5.6 and 5.7 report the origins of goods and customers by three categories: from the municipality, from the province, and from outside the province.

About half the goods sold in the Pulilan public market come from outside the province, while a little

TABLE 5.4: COMMUTING DISTANCE AND TRAVEL TIME

<table>
<thead>
<tr>
<th></th>
<th>Pulilan</th>
<th>Guiguinto</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median commuting distance (kilometers)</td>
<td>3.0</td>
<td>1.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Median travel time, one way (minutes)</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: MDP Impact Evaluation Study market survey.
more than half the goods sold in Guiguinto come from within the province. More than 90 percent of the customers in the informal Guiguinto markets are from the municipality, while in Pulilan 15 percent come from the province and 5 percent from outside the province. The findings show that the public market in Pulilan established wider transport and commercial linkages with locations outside the province than did the markets in Guiguinto.

Employment Side Effects
Twenty-eight percent of stallholders in Pulilan and 17 percent in Guiguinto said that they hired a housemaid after they started business at the market and pay 1,500 pesos per month for the service. This shows that the public market in Pulilan has had a greater indirect effect on employment generation in addition to the jobs created at the market.

To capture indirect impacts, the survey included 15 small business enterprises near the public market in Pulilan and 15 near the informal markets in Guiguinto. In Pulilan, 14 out of 15 enterprises were established since 1995, indicating rapid expansion of economic activities in the public market area. The types of businesses included car services (gas station), banking, tile making, restaurants, clothing, electronics, and drug stores. The average size of employment at these enterprises was 3.3 persons in Pulilan and 2.3 in Guiguinto.

Emerging Real Estate Market
According to the municipal government staff in Pulilan, the land price in the public market area was 55 pesos per square meter in 1992, before the market was established. Land in the residential area was selling for more than 12,000 pesos per square meter in 1998. The survey found that 10 of the 15 small enterprises interviewed in Pulilan were renters with an average floor space of 76 square meters, indicating an active real estate market emerging in the public market area. The average floor space of the small enterprise owners interviewed in Guiguinto was much less, only 41 square meters.

| TABLE 5.5: QUALITY OF SERVICES AT THE MARKET (PERCENTAGE OF RESPONDENTS ANSWERING EXCELLENT OR GOOD) |
|-------------------------------------------------|-------------------------------------------------|
| Pulilan                                         | Guiguinto                                       |
| First year 1998                                | First year 1998                                |
| Electricity                                    | Electricity                                    |
| 58                                              | 49                                              |
| 80                                              | 55                                              |
| Water supply                                   | Water supply                                   |
| 70                                              | 30                                              |
| 87                                              | 28                                              |
| Telephone                                      | Telephone                                      |
| 27                                              | 27                                              |
| 48                                              | 35                                              |
| Police protection                              | Police protection                              |
| 65                                              | 38                                              |
| 75                                              | 42                                              |
| Fire protection                                | Fire protection                                |
| 70                                              | 30                                              |
| 82                                              | 32                                              |
| Garbage collection                             | Garbage collection                             |
| 87                                              | 32                                              |
| 91                                              | 32                                              |
| Sewerage and drainage                          | Sewerage and drainage                          |
| 80                                              | 28                                              |
| 83                                              | 34                                              |
| Public toilet                                  | Public toilet                                  |
| 73                                              | 22                                              |
| 65                                              | 20                                              |
| Ventilation                                    | Ventilation                                    |
| 80                                              | 45                                              |
| 82                                              | 42                                              |
| Storage                                        | Storage                                        |
| 38                                              | 22                                              |
| 43                                              | 20                                              |
| Parking space                                  | Parking space                                  |
| 85                                              | 39                                              |
| 90                                              | 35                                              |
| Driveway                                       | Driveway                                       |
| 88                                              | 38                                              |
| 91                                              | 42                                              |

Note: The response rate was 100 percent for the sample of 60 in both municipalities.
Source: MDP Impact Evaluation Study market survey.

| TABLE 5.6: ORIGIN OF GOODS SOLD AT THE MARKET (MEAN PERCENTAGE) |
|-------------------------------------------------|-------------------------------------------------|
| Pulilan                                         | Guiguinto                                       |
| From municipality                              | From municipality                              |
| 22.3                                           | 14.3                                            |
| From province                                  | From province                                  |
| 28.4                                           | 55.1                                            |
| From outside province                          | From outside province                           |
| 49.3                                           | 30.6                                            |
| All                                            | All                                             |
| 18.3                                           | 41.8                                            |

Source: MDP Impact Evaluation Study market survey.

| TABLE 5.7: ORIGIN OF CUSTOMERS AT THE MARKET (MEAN PERCENTAGE) |
|-------------------------------------------------|-------------------------------------------------|
| Pulilan                                         | Guiguinto                                       |
| From municipality                              | From municipality                              |
| 79.6                                           | 90.9                                            |
| From province                                  | From province                                  |
| 15.3                                           | 7.0                                             |
| From outside province                          | From outside province                           |
| 5.1                                            | 2.1                                             |
| All                                            | All                                             |
| 85.2                                           | 11.2                                            |

Source: MDP Impact Evaluation Study market survey.
International experience shows that municipalities have different financing needs, depending on their size and their stage of socioeconomic development. In the Philippines MDP program, which is demand driven without any restriction, small and resource-poor municipalities tend first to finance rather simple, low-risk, revenue-generating projects such as a public market. After successfully completing such a project, their creditworthiness is enhanced, and they can then expand their investments in public infrastructure projects such as roads and drainage.

As municipalities grow, they have an increasing need to finance economic infrastructure for productive activities such as manufacturing and commerce, as well as social infrastructure for the population. When they eventually graduate from the MDP program, they begin to borrow from the private capital market. Experiences in both the Philippines and Brazil show such progress. This catalytic role is analogous to the role of the World Bank in helping developing countries until they graduate from the Bank.

For selected municipalities, introducing risk guarantee functions, and developing mechanisms for private sector participation through build-operate-transfer schemes, concessions, and management contracts for specific services such as maintenance functions. As a good practice case, ParanáCidade is ready to meet these challenges and is pushing the frontier of the World Bank’s MDP program. It will continue to provide useful lessons for MDPs in Brazil and elsewhere.

MDPs in Paraná
ParanáCidade (the ongoing Urban Development Fund project financed by the InterAmerican Development Bank) has been expanding its operations as a self-financing, private financial intermediary, and has now entered a new phase of providing more diversified financial services and types of loans. Diversification of the loan mix to include revenue-generating projects (with positive externalities such as public markets) could come sooner than diversification of financial services, since the latter will depend on the speed of overall capital market development in Brazil. New financial services could include managing bond issues for selected municipalities, introducing risk guarantee functions, and developing mechanisms for private sector participation through build-operate-transfer schemes, concessions, and management contracts for specific services such as maintenance functions. As a good practice case, ParanáCidade is ready to meet these challenges and is pushing the frontier of the World Bank’s MDP program. It will continue to provide useful lessons for MDPs in Brazil and elsewhere.

MDPs in Rio Grande do Sul
This MDP program regained its momentum with the return of its original advocate to the state government in 1995. In 1998, the operations of the municipal development fund expanded in response to high demand and strengthened its financial position. Continued state government protection of the organizational integrity of PIMES will be crucial for the sustainability of the state urban development fund, FUNDOPIMES, as it pursues further institutional growth. As in Paraná, the future will require diversification of the loan product mix to include revenue-generating projects and, eventually, diversification of financial services.
MDPs in the Philippines
To meet the strong demand for MDP financing from local governments, the Central Project Office in the Philippines prepared a follow-on project, MDP III, which was approved by the Board in March 1992. MDP III was a continuation of the efforts of MDP I and MDP II to strengthen the institutional development process and expand development assistance to more municipalities. MDP III was also very timely, as it helped the national government to develop and carry out its decentralization program after the Local Government Code was revised in 1991. The design and components of MDP III were similar to those of MDP I and II, but it did not target any particular regions.

A fourth follow-on project, LOGOFIND, was approved in 1999. Within a broad policy reform framework (Llanto and others 1996), LOGOFIND will address the negative aspects of the bottom-up, demand-driven project design. The self-selection process tends to generate competition among municipalities, and only the most credit-worthy and the most capable of making necessary policy changes are able to participate in the MDP and access credit. Many that are poor and noncreditworthy have been left out, thus widening interregional income disparities. LOGOFIND intends to implement a policy framework aimed at graduating more successful local governments to the private financial markets while providing assistance to weaker municipalities.
Conclusions and Lessons

The study draws four main conclusions in regard to MDP operations: (1) MDPs help reform at the local level; (2) municipalities are aware that participation is a commitment to reform and that improved fiscal performance goes hand-in-hand with management strengthening, which gives mayors a more entrepreneurial view of their administrations; and (3) municipalities are more sensitive to MDP impacts the deeper MDP funding goes. Based on these findings, the study recommends that (1) MDP policy reform instruments should be diversified to broaden project impacts; (2) for successful impacts, the project must be well designed from the beginning, since later course correction is difficult; (3) competition among municipalities should be promoted through the dissemination of success stories; (4) MDPs can be implemented even during times of macroeconomic and political change, since they have been shown to have favorable impacts in such circumstances; and (5) the most important element for success is a sound policy and fiscal decentralization framework.

Conclusions
The principal findings of this study are as follows:

• **MDP operations help reform at the level of local government.** Participant municipalities increase their fiscal autonomy by collecting more of their own revenues—especially property taxes—than nonparticipants. In a fiscal sense, autonomy helps municipalities to gain access to further MDP funds and other loans. It also helps them pay off existing obligations. In a political sense, more autonomy gives municipalities a greater role in decentralized decisionmaking. Local project authorities at the state or provincial level see the MDP as an instrument of reform. Its effectiveness is ensured when there are no competing sources of finance for municipalities with easier terms. Detailed design of MDP projects is crucial to determine the direction of impacts. The projects studied here focused on improvements in the property tax—precisely the area of municipal finance where the project impacts were strongly felt.

• **Municipalities consciously perceive MDP participation as a process of reform.** Municipalities are not simply passive agents of MDP, but consciously buy into the MDP reform program. Municipalities of all sizes are acutely aware of the improvements planned, conditions attached, what they have to do to take part, and the final achievements. They associate successful MDP participation with innovations in their own administrations and their ability to plan and implement successful investment projects.

• **Improved fiscal performance goes hand-in-hand with management strengthening.** The MDPs evaluated here began with a level playing field
in relation to nonparticipants in the areas of fiscal autonomy, own revenues per capita, and budget balances, and improved in these areas more than nonparticipants. Technical assistance provided through MDP operations helped municipalities become more entrepreneurial, think more about fiscal adjustment, value their staff more highly, interact more closely with private companies and local communities, and be more environmentally conscious.

- **MDP impacts are sensitive to project leverage.** The more closely involved municipalities were in MDP projects, as measured by the share of all their investments funded by the MDP, the greater the project impacts on municipal own revenue generation. Being more closely bound up with—and dependent on—an MDP operation makes a municipality more likely to follow project policy prescriptions, and to be successful in doing so.

- **MDPs in the Philippines attracted revenue-generating projects.** Because of the strictly demand-driven approach followed in the Philippines, MDPs first financed revenue-generating projects such as public markets. These presented minimum risks in implementation delays and cost recovery. With the revenues from such projects, participating municipalities were able to enhance their financial base, and thus their creditworthiness. This, in turn, enabled them to expand their investments to infrastructure projects such as roads, drainage, water supply, and sanitation.

**Lessons for Future Operations**
The MDP project experience offers many lessons. Most important:

- **MDP policy reform instruments should be diversified.** It is important to extend the success in improving property taxes to the other revenue items that make up the remaining three-quarters of municipal own income in both Brazil and the Philippines. In the case of Brazil, for instance, future MDPs might focus on the widespread local service tax, an increasingly important source of municipal revenue. In the Philippines, MDP financing of revenue-generating projects such as public markets can play a catalytic role in the development of local economies.

- **Good design at the outset is crucial to satisfactory MDP outcomes.** A municipality’s first encounter with an MDP program is crucial to setting the tone for future participation. Conditions and requirements for present and future MDP operations should be very transparent and easily understood by new municipal participants. Experience shows that an initial misconception by a municipality—that direct cost recovery is not a project requirement, for instance—can prove very difficult to correct later in a follow-on operation.

- **It is important to promote competition through the dissemination of success stories.** Good practice municipal participants are an MDP operation’s best promoters. Project managers should take advantage of this by disseminating the experiences of these municipalities, especially among nonparticipants.

- **MDP projects can have satisfactory impacts even under conditions of political change and economic volatility.** For the long-term sustainability of MDPs, however, borrowers should establish sound policy and fiscal decentralization frameworks. The experience of the municipal development projects in both Brazil and the Philippines—implemented at a time of major macroeconomic adjustment and political change—demonstrates that such projects can succeed even when macro conditions have yet to stabilize. MDPs were implemented during the period of severe macro instability in the early 1990s in Brazil and after the People’s Revolution of 1986 in the Philippines. Any progress made in institutional reform at the local level during times such as these should be helpful to a subsequent reform effort at the national level.
ANNEX 1: DATA AND METHODOLOGY

Data Collection

Local Finance Data: Brazil and the Philippines
The study designed and developed a database using detailed unpublished data on the finances of 427 municipalities in the state of Rio Grande do Sul and 323 municipalities in the state of Paraná in Brazil, and 53 municipalities in the provinces of Bulacan and Laguna in the Philippines. The database design focused on 15 selected variables of municipal revenues and expenditures for each state in Brazil and each province in the Philippines. A very large body of data was available for each country’s municipalities, covering up to 75 detailed variables at the municipal level for every year during 1990–96, the period of project implementation.

For this reason, the study had to be selective and use only data immediately relevant to measuring the impacts of these projects. More than 300 analytical tables were produced to obtain the results reported in this study. The availability of the data for all municipalities in individual states and provinces made it unnecessary to draw samples, since the analysis could include the entire population of municipalities. Very small (population <2,000) and very large (population >250,000) municipalities were excluded from the data analysis to keep possible outliers from distorting observations of the average performance of municipalities. At the design stage of the study, specific hypotheses on impacts were used to help select key variables for evaluation from among the vast array of data available.

Survey of Mayors: Rio Grande do Sul
A survey of mayors and their administrations was conducted for 26 municipalities in Rio Grande do Sul to evaluate the project’s impacts on municipal capacity building in the areas of financial management and administration, including planning, budgeting, and accounting practices; investment project preparation and implementation; and technical capability of staff. The questionnaire was drafted jointly with the Bank’s audit mission, and the study was coordinated by a Bank consultant.

Impact Evaluation Study Market Survey: Philippines
To evaluate the impacts of an MDP-financed public market on the development of the local economy, Pulilan in Bulacan Province was selected as the project municipality. A random sample of 60 stallholders in the Pulilan public market was selected as the experimental group. They were asked about their location history; employment characteristics; commuting patterns; the extent of the markets; changes in sales, expenses, and income during 1993–98; improvements in services; and the potential for further growth of their businesses. In addition, 15 small shopowners (retail,

<table>
<thead>
<tr>
<th>TABLE A1.1: MUNICIPALITIES Evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>State or province</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
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</tr>
<tr>
<td>Participants (RGS)</td>
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<tr>
<td>Nonparticipants (RGS)</td>
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<tr>
<td>Total</td>
</tr>
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<td>Philippines</td>
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<tr>
<td>Participants (Bulacan)</td>
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<tr>
<td>Nonparticipants (Bulacan)</td>
</tr>
<tr>
<td>Participants (Laguna)</td>
</tr>
<tr>
<td>Nonparticipants (Laguna)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Note: RGS = Rio Grande do Sul. Outlying very large (pop. >250,000) and very small (pop. <2,000) municipalities were eliminated from the study.

a. Population of 50,000–250,000.
b. Population of 10,000–50,000.
c. Population of 2,000–10,000.

Source: MDP Impact Evaluation Study database.
services, finance, and manufacturing located near the public market) were interviewed to document the project’s indirect effects on the development of the area, including employment creation, land price changes, and the emerging business district. To contrast and compare with the experimental group, Guiguinto was selected as the nonproject municipality, and a random sample of 60 stallholders in several privately organized informal markets and 15 shopowners in Guiguinto was selected as a control group. The questionnaire used in Pulilan was also used in Guiguinto to collect data on a total of 120 stallholders and 30 shopowners in the study sample. (The questionnaire is reproduced as Annex 5.)

Additional Points of Methodology for Chapter 3
Because of the rigorous reporting requirements of official controllers of local governments in both countries, a very large body of information on the finances of municipalities was available. This allowed for the gathering of detailed time series and cross-sectional data on all municipalities in all four states and provinces where the municipal development projects were implemented. Table A1.1 details the universe of the study at the level of groups of municipalities.

Thus, the finances of 669 municipalities, 78.7 percent of the total, were reviewed. Excluded from the study were 140 newly created (and mostly small) municipalities in Brazil, for which time series data did not go back to 1990.1 The Brazilian sample was also truncated by excluding 8 very large municipalities with more than 250,000 inhabitants each and 16 very small ones with fewer than 2,000 inhabitants each. Besides eliminating outliers from the study, this also gave each country’s group of municipalities a similar demographic distribution, helping to make comparative observations across countries more robust. Finally, 17 municipalities that had participated only in MDP technical assistance without borrowing under the program were excluded from the Philippines analysis; they qualified neither as MDP participants nor as members of a control group of nonparticipants.

A central feature of the evaluation design was a comparison of the performance of MDP municipalities with the performance of a control group of similar municipalities that did not participate in an MDP. In Rio Grande do Sul, 185 municipalities—represented in all three population cohorts—did not participate and provided a natural control group. Paraná had no similar control group, since MDPs covered 100 percent of the municipalities. A second-best solution to evaluate the performance of Paraná participant municipalities was to compare them with the control group of nonparticipants in Rio Grande do Sul. A similar design was used for the Philippines, where Laguna province offered the best control group, since MDP coverage in Bulacan, as in Paraná, had been nearly 100 percent.

Comparisons were made using a series of indicators of municipal fiscal performance. Empirical observation of the values of these indicators permitted identification of two kinds of differences: (1) those between MDP participants and nonparticipants; and (2) those between the performance of MDP participants before the project and the same participants after the project. The values of all indicators were tabulated by estimating mean values across groups of municipalities. For property tax per capita, for example, the mean value of all municipalities was estimated across analytical categories (all participants in Rio Grande do Sul, large nonparticipants in Laguna). In other words, the estimates were mean values for the indicators of each municipality within the category; the estimates did not represent the mean value for the category as a whole. By focusing on estimates of average values of these indicators across individual municipalities, the evaluation could more effectively meet its objective of highlighting the effects of MDP impacts at the level of individual municipalities.

Strictly speaking, data analysis should be limited to comparisons among 132 participating municipalities (the experimental group) versus 185 nonparticipating municipalities (the control group) in the state of Rio Grande do Sul (see table A1.1), since the policy environment and the implementation strategy were different between Paraná and Rio Grande do Sul. Nevertheless, the study team decided to report the results of the Paraná data together with those of Rio Grande do Sul to evaluate the general patterns of project impacts across states, because the project design was identical in the two states. In the Philippines, all municipalities in the province of Bulacan participated in MDPs, so Laguna, where a large number of municipalities did not participate in MDPs, was chosen to provide a control group. Therefore, in the empirical results reported in this document, the focus of analysis should be the comparison between the control and experimental groups in Rio Grande do Sul, and other results should be viewed as supplementary.
ANNEX 2: ADDITIONAL DATA ANALYSIS OF MUNICIPALITIES BY POPULATION SIZE

This annex presents additional details of the evaluation of MDP impacts on municipal fiscal and financial management, as reported in Chapter 3. Here the same indicators are analyzed, but disaggregated by municipal size according to population cohorts. In this annex, the cohorts are defined as follows: (1) large municipalities are those with 50,000–250,000 inhabitants; (2) medium municipalities have 10,000–50,000 inhabitants; and (3) small municipalities have 2,000–10,000 inhabitants.

Municipal Financial Autonomy versus Revenue Sharing

As in Chapter 3, the analysis here looks at two indicators of financial autonomy at the municipal level: (1) municipal own revenues as a share of all current revenues and (2) municipal own revenues per capita. Table A2.1 summarizes the data regarding the first indicator by population size of municipality.

Among the highlights:

- In Brazil, MDP participants in all size categories outperformed nonparticipants, except for large participants in Rio Grande do Sul. Participants’ financial autonomy improved over the 1990–96 period.
- Among all size categories in Brazil, small nonparticipants reported the poorest performance, while small participants did much better. This finding is consistent with the idea that MDPs can be beneficial in stalling the erosion of fiscal autonomy, especially of small municipalities.

Table A2.2 presents data pertaining to the second indicator of municipal financial autonomy: the amount of own revenues collected per capita.

The highlights:

- The best performance among large municipalities in Brazil was that of Paraná participants. Large participants in Rio Grande do Sul also did better than nonparticipants in that state. Since large municipalities in both states share strong administrative capabilities to improve own revenue mobilization, the study team looked for different project impacts to explain the contrast. As second-timers in MDP projects, Paraná municipalities had more time than their Rio Grande do Sul counterparts to learn that access to credit is helped by own resource mobilization. For this reason, large Paraná municipalities may have been quicker to respond to MDP incentives.
- The less favorable performance by small municipalities in Paraná reflects the difficulty of moni-

<table>
<thead>
<tr>
<th>Table A2.1: Impacts of Projects on Municipal Financial Autonomy—Own Revenues’ Share of All Current Revenues (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Large municipalities (population 50,000–250,000)</td>
</tr>
<tr>
<td>Participants (Paraná)</td>
</tr>
<tr>
<td>Participants (RGS)</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
</tr>
<tr>
<td>Medium municipalities (population 10,000–50,000)</td>
</tr>
<tr>
<td>Participants (Paraná)</td>
</tr>
<tr>
<td>Participants (RGS)</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
</tr>
<tr>
<td>Small municipalities (population 2,000–10,000)</td>
</tr>
<tr>
<td>Participants (Paraná)</td>
</tr>
<tr>
<td>Participants (RGS)</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
</tr>
</tbody>
</table>

Note: See tables 3.2 and 3.3. RGS = Rio Grande do Sul.
Source: MDP Impact Evaluation Study database.
TABLE A2.2: IMPACTS OF PROJECTS ON OWN REVENUE MOBILIZATION—OWN REVENUES PER CAPITA
(CONSTANT 1996 US$)

<table>
<thead>
<tr>
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<tr>
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<td>(A)</td>
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<td>(B/A)</td>
<td>(D)</td>
<td>(E)</td>
<td>(E/D)</td>
<td></td>
</tr>
<tr>
<td>Large municipalities (population 50,000–250,000)</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
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<td>80.92</td>
<td>+83.7</td>
<td>Participants (Bulacan)</td>
<td>4.48</td>
<td>8.63</td>
<td>+92.6</td>
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<td>56.64</td>
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<td>Participants (Laguna)</td>
<td>6.80</td>
<td>13.68</td>
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<tr>
<td>Medium municipalities (population 10,000–50,000)</td>
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<td>Small municipalities (population 2,000–10,000)</td>
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<td></td>
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<td>31.45</td>
<td>+44.3</td>
<td>Participants (Bulacan)</td>
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<td>–</td>
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<td>Participants (RGS)</td>
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<td>74.27</td>
<td>+137.2</td>
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<td>–</td>
</tr>
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<td>Nonparticipants (RGS)</td>
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<td>50.62</td>
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</tbody>
</table>

Note: See tables 3.2 and 3.3. RGS = Rio Grande do Sul.
Source: MDP Impact Evaluation Study database.

TABLE A2.3: IMPACTS OF PROJECTS ON PROPERTY TAX COLLECTION—PROPERTY TAX PER CAPITA
(CONSTANT 1996 US$)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)</td>
<td>(B/A)</td>
<td>(D)</td>
<td>(E)</td>
<td>(E/D)</td>
<td></td>
</tr>
<tr>
<td>Large municipalities (population 50,000–250,000)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>3.13</td>
<td>1.93</td>
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<td>Participants (RGS)</td>
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<td>15.52</td>
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<td>Participants (Laguna)</td>
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<td>4.54</td>
<td>+86.8</td>
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<tr>
<td>Nonparticipants (RGS)</td>
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<td>9.56</td>
<td>+164.8</td>
<td>Nonparticipants (Laguna)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Medium municipalities (population 10,000–50,000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
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<td>7.79</td>
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<td>0.91</td>
<td>-4.2</td>
</tr>
<tr>
<td>Participants (RGS)</td>
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<td>18.35</td>
<td>+339.9</td>
<td>Participants (Laguna)</td>
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<td>–</td>
<td>–</td>
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<tr>
<td>Nonparticipants (RGS)</td>
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<td>11.57</td>
<td>+461.7</td>
<td>Nonparticipants (Laguna)</td>
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<td>1.53</td>
<td>+31.9</td>
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<tr>
<td>Small municipalities (population 2,000–10,000)</td>
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<td></td>
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<td></td>
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<td>Participants (Paraná)</td>
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<td>3.75</td>
<td>+247.2</td>
<td>Participants (Bulacan)</td>
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<td>–</td>
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<tr>
<td>Participants (RGS)</td>
<td>1.16</td>
<td>16.43</td>
<td>+1,316.4</td>
<td>Participants (Laguna)</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Nonparticipants (RGS)</td>
<td>1.71</td>
<td>9.89</td>
<td>+478.4</td>
<td>Nonparticipants (Laguna)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: See tables 3.2 and 3.3. RGS = Rio Grande do Sul.
Source: MDP Impact Evaluation Study database.

Monitoring (by means of a financial action plan) the reform process for a large number of participating municipalities, as confirmed by the performance audit.

- Smaller municipalities in Rio Grande do Sul were more sensitive to the initial shock caused by gaining access to MDP credit for the first time. Here, the project effects will be sustainable in the long run only if municipalities succeed in permanently consolidating their administrative capacity.
- Data for the Philippines reveal that participating municipalities in Bulacan did better than nonparticipants in Laguna in the medium-size category.
Own Revenue Generation Through Property Taxes

Table A2.3 presents data on the performance of municipalities of different sizes in mobilizing property tax revenues per capita.

Among the highlights:

- In the large population cohort in Brazil, both Paraná and Rio Grande do Sul participants improved property tax collections per capita much more than did nonparticipants. This reflects the willingness and administrative capability of larger municipalities to respond to MDP requirements and technical assistance to collect more property taxes.
- This finding reflects the earlier conclusion in this annex about own revenue generation, and indicates that larger municipalities are able to respond more effectively to MDP incentives and to undertake the complex and politically unpopular business of raising more property taxes from their citizens.
- In the Philippines, as well, larger participants report the strongest property tax performance.
- The ability of small participants to improve property tax collection in Brazil was varied. Small participants in Rio Grande do Sul did substantially better than nonparticipants, supported by intense MDP project supervision and the credibility of a program in which they were participating for the first time. Small participants in Paraná, in contrast, were less supervised because of the larger number of participants.

**TABLE A2.4: IMPACTS ON DIRECT COST RECOVERY IN BRAZIL**

<table>
<thead>
<tr>
<th>Betterment charge per capita (constant 1996 US$)</th>
<th>Municipalities by population cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>1990</td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>1.84</td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>0.88</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>0.36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Municipalties by population cohort</th>
<th>Medium</th>
<th>1990</th>
<th>1996</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td>(E)</td>
<td>(F)</td>
<td>(F-E)</td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>1.36</td>
<td>0.62</td>
<td>-54.4</td>
<td></td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>1.62</td>
<td>2.46</td>
<td>+51.9</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>0.98</td>
<td>1.44</td>
<td>+46.9</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Municipalties by population cohort</th>
<th>Small</th>
<th>1990</th>
<th>1996</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(G)</td>
<td>(H)</td>
<td>(H-G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>0.84</td>
<td>0.40</td>
<td>-52.4</td>
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</tr>
<tr>
<td>Participants (RGS)</td>
<td>1.34</td>
<td>4.62</td>
<td>+244.8</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>1.53</td>
<td>1.81</td>
<td>+18.3</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** See tables 3.2 and 3.3. Behind the weaker performance of Paraná is that 26 participant municipalities stopped collecting betterment charges by 1996, so that by project completion, 58.2 percent of all participants did not collect betterment charges. In contrast, in Rio Grande do Sul, an additional 14 participant municipalities were collecting betterment charges by 1996, so that by project completion, only 16.7 percent of participants were not collecting betterment charges.

**Source:** MDP Impact Evaluation Study database.

**TABLE A2.5: IMPACTS ON MUNICIPAL BUDGET SURPLUS OR DEFICIT**

<table>
<thead>
<tr>
<th>Budget surplus(+) or deficit(-) as share of total revenues (percent)</th>
<th>Municipalities by population cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>1990</td>
</tr>
<tr>
<td>(C)</td>
<td>(D)</td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>-0.6</td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>+2.3</td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>+2.3</td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
</tr>
<tr>
<td>Participants (Bulacan)</td>
<td>-6.1</td>
</tr>
<tr>
<td>Participants (Laguna)</td>
<td>+5.3</td>
</tr>
<tr>
<td>Nonparticipants (Laguna)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Municipalties by population cohort</th>
<th>Medium</th>
<th>1990</th>
<th>1996</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E)</td>
<td>(F)</td>
<td>(F-E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
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<td></td>
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<tr>
<td>Participants (Paraná)</td>
<td>-0.5</td>
<td>-9.4</td>
<td>-8.9</td>
<td></td>
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<tr>
<td>Participants (RGS)</td>
<td>-0.4</td>
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<tr>
<td>Nonparticipants (RGS)</td>
<td>+1.5</td>
<td>-6.6</td>
<td>-8.1</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Bulacan)</td>
<td>-2.6</td>
<td>+0.5</td>
<td>+3.1</td>
<td></td>
</tr>
<tr>
<td>Participants (Laguna)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (Laguna)</td>
<td>+8.9</td>
<td>+1.6</td>
<td>+10.5</td>
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<table>
<thead>
<tr>
<th>Municipalties by population cohort</th>
<th>Small</th>
<th>1990</th>
<th>1996</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(G)</td>
<td>(H)</td>
<td>(H-G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants (Paraná)</td>
<td>+0.4</td>
<td>-9.4</td>
<td>-9.8</td>
<td></td>
</tr>
<tr>
<td>Participants (RGS)</td>
<td>+1.2</td>
<td>-7.4</td>
<td>-8.6</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (RGS)</td>
<td>+3.6</td>
<td>-7.5</td>
<td>-11.1</td>
<td></td>
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<tr>
<td>Philippines</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Participants (Bulacan)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Participants (Laguna)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants (Laguna)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** See table 3.2. Budget surplus or deficit = total current revenues minus total current expenditures (including debt service payments). RGS = Rio Grande do Sul.

**Source:** MDP Impact Evaluation Study database.
Direct Cost Recovery
Table A2.4 reports, for Brazil only, municipal direct cost recovery through the levying and collection of betterment charges on investment projects.

Among the highlights:

- In Rio Grande do Sul, participants did much better than nonparticipants in all categories. The best relative performance of participant over nonparticipant municipalities was in the small category. Small participant municipalities there responded strongly and positively to MDP conditionalities and technical assistance provided under the project. This evidence is consistent with the shock effect and leverage of first-time contact with an MDP project, as discussed earlier in this report.

Budget Surplus or Deficit
Table A2.5 presents municipal budget surplus and deficit data by population-size category.

Among the highlights:

- Large participants in both Paraná and Rio Grande do Sul outperformed nonparticipants. Large participants in Bulacan reported a significant improvement as, on average, they moved out of deficit into surplus. These findings demonstrate that the administrative strength of larger municipalities in the Philippines is similar to that reported earlier for the case of Brazil.
- Medium-size participants in Rio Grande do Sul also performed better than nonparticipants, as did medium-size participants in the Philippines.
- For small municipalities, the differences in performance of participants and nonparticipants were not very large.

Financial Deepening
For the case of Brazil only, the data in table A2.6 report municipal-level performance by degree of involvement in the MDP projects.

Among the results:

- Project leverage can affect MDP impacts in all three size categories.
- Apparently, there are two exceptions: (1) unexpectedly, medium-size shallow participants in Paraná performed, as well as deep participants; and (2) small, shallow participants outperformed all others within their size category in Rio Grande do Sul.
- Both results are the consequence of the exceptional performance of a few municipalities, creating bias in the category means reported here.

### TABLE A2.6: IMPACTS ON OWN REVENUES BY DEGREE OF FINANCIAL DEEPENING IN BRAZIL

<table>
<thead>
<tr>
<th>MDP participant municipalities by population cohort</th>
<th>Own revenues per capita (constant 1996 US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(C)</td>
</tr>
<tr>
<td>Paraná</td>
<td></td>
</tr>
<tr>
<td>Deep</td>
<td>36.42</td>
</tr>
<tr>
<td>Medium</td>
<td>43.91</td>
</tr>
<tr>
<td>Shallow</td>
<td>49.29</td>
</tr>
<tr>
<td>Rio Grande do Sul</td>
<td></td>
</tr>
<tr>
<td>Deep</td>
<td>28.65</td>
</tr>
<tr>
<td>Medium</td>
<td>63.91</td>
</tr>
<tr>
<td>Shallow</td>
<td>56.25</td>
</tr>
</tbody>
</table>

Note: See tables 3.2 and 3.3. Financial depth is defined as the share of total 1990–92 municipal investment accounted for by MDP funding. The three groups are: (a) deep = > 50 percent; (b) medium = 25–50 percent; and (c) shallow = <25 percent. Source: MDP Impact Evaluation Study database.
This annex presents the lessons and recommendations from the performance audit report for the Brazil MDPs.

In April 1997, a policy seminar was held in Curitiba, Paraná, to draw lessons from past urban operations. The lessons were succinctly summarized as follows: “Current trends in political, fiscal, administrative, and operational decentralization entrust the provision of typically local services to local authorities. The Municipal Development Program of Paraná has greatly reduced local dependence on state grants through a mechanism that is increasingly self-financing. This relieves the state of some responsibilities and helps reduce social tensions by offering a direct response to local needs. It also stimulates municipal tax collection as a means to improve creditworthiness” (Secretariat of Urban Development 1997, p. 41). The overall findings of the audit support this statement. More specific lessons follow.

- **Demand side.** The financial action plan, with its stringent conditions for loans, was an effective incentive for municipal reform. This design, with follow-up monitoring at the time of subsequent loan applications, enabled a wholesale approach that covered a large number of municipalities.
- **Supply side.** The MDP program in Paraná demonstrated the institutional evolution of an urban development fund from a government-operated disbursement mechanism to an independent, self-financing, private financial intermediary for providing long-term credit to municipalities. ParanáCidade is a good practice case for the MDP program; it can be replicated in other states in Brazil and in other countries.
- **Sequencing of project components.** The project design, which aimed at setting the institutional framework right and putting financial reform in place before physical investments were undertaken, reduced the risk of implementation delays and helped ensure cost recovery.
- **Champions and political support.** During implementation, the MDP program in Paraná was not affected by government changes. The MDP program in Rio Grande do Sul did suffer from such changes and was on the verge of collapse until the original preparers of the project returned to power in 1995. Continued political support over time is crucial for successful project implementation.
- **The dynamics of municipal development.** The MDP program was most effective in assisting smaller, less creditworthy municipalities in remote regions of the states. Large cities had access to alternative sources of financing and better technical capacity. As in the Philippines, the Municipal Development Fund in Brazil was catalytic in helping smaller, resource-poor municipalities become more creditworthy and financially strong, with the expectation that they will eventually participate in the capital market. But international experience has shown that direct participation of municipalities in the capital market has been slow in most developing countries.
- **MDP as an instrument for rural development.** The project’s financial and institutional impacts were most significant for small and medium-size municipalities in remote regions. Enhancing the efficiency and productivity of these market towns should contribute significantly to the economic and social development process in rural regions. As an important side effect, this process would reduce regional income disparities between large urban centers and rural areas.

**Recommendations**

- **Diversify the types of subprojects to be financed.** Both ParanáCidade and the state urban development fund, FUNDOPIMES, should expand the scope of the lending program by allowing revenue-generating projects with positive externalities in which the private sector can participate.
- **Diversify financial services.** ParanáCidade has reached a phase where it could consider diversifying its financial services to include credit guarantee service and debt financing. It could also play a catalytic role in build-operate-transfer schemes, concessions, contract management, and other forms of private sector participation. FUNDOPIMES could soon follow ParanáCidade’s path.
- **Emphasize training.** The MDP program in Brazil
lacks continuing training in association with a formal training institute. Since the Brazil MDP is implemented in a wholesale manner for numerous municipalities, it may be useful to explore the feasibility of establishing a training institute (possibly jointly by several states) to build municipal capacity. This would enhance local capacity to generate high-quality investment projects and lessen the need for close supervision by the state’s implementation agencies.

• **Streamline municipal administration and management.** Computerizing the accounting and budgeting systems and updating financial data would enhance the efficiency of municipal administration and management. It would also make it easier for ParanáCidade and FUNDOPIMES to continuously monitor the financial health of participating municipalities by sharing a common database. ParanáCidade is heading in this direction by adopting sophisticated data management and operations simulation systems.

• **Use the betterment tax effectively for direct cost recovery.** This tax for a new infrastructure service is generally a one-time connection fee. Studies show that low-income households and small enterprises tend to have a greater willingness to pay at the margin for reliable services than high-income households and large firms (Lee, Anas, and Oh, 1999; Lee and Anas, 1992). Therefore, this tax measure could be an effective means of direct cost recovery if the government commits to its implementation.

• **Protect PIMES and FUNDOPIMES from political interference.** With a healthy cash position and the high demand for loans, the PIMES program is entering a critical phase for institutional growth and financial stability. It is important to protect its organizational integrity, financial independence, and highly dedicated staff during the period of ongoing state reform.

• **Monitor the creditworthiness of municipalities in Paraná.** Ninety-nine percent of municipalities are participating in Paraná. For such a large number of participants, more stringent monitoring of the financial action plans will be desirable to maintain healthy financial conditions of both the municipalities and the Municipal Development Fund.

• **Disseminate lessons learned.** The evaluation coordinator of Brazil’s Federal Ministry of Planning participated in the audit mission. He suggested that, on completion of OED’s ongoing impact evaluation study, a dissemination seminar be held in Brasilia for local government officials involved in MDPs.
This annex presents the lessons and recommendations from the performance audit report for the Philippines MDPs.

- **Demand-driven approach, participation, and ownership.** A bottom-up, demand-driven program approach to project financing is more efficient and effective for project implementation than a top-down, preselected, project-specific approach. Beneficiary local governments perform better and show greater commitment to the project when they have primary responsibility for project preparation, management, and implementation.

- **Sequencing of project components.** The institutional framework for project financing (the Municipal Development Fund) was put in place before physical investments were undertaken. Because of the demand-driven approach, the MDP program financed revenue-generating projects that presented minimum risks for cost recovery. This outcome showed that sequencing of project components in response to the needs of beneficiaries can prevent the implementation delays and cost-recovery problems that often occur in a complex urban development project prepared in a top-down manner.

- **Piloting to mainstreaming analogy.** After the participating municipalities complete a rather simple, low-risk, revenue-generating project such as a public market, their creditworthiness is enhanced because of a stronger financial base, and they tend to expand their investments to infrastructure projects such as roads, drainage, water supply, and sanitation. The logic of the new project cycle (Picciotto and Weaving 1994) is supported by the experiences of the MDP program.

**Recommendations**

- **Reform government finance and the changing role of the Municipal Development Fund.** The program financed mainly revenue-generating projects with minimum risk. Local governments were initially reluctant to finance social or infrastructure projects with cost-recovery features. These experiences suggest that segmenting the demand side of the market—that is, targeting particular types of municipalities for particular types of projects—should be avoided. Even under LOGOFIND, the credit window for first-time (poor and less experienced) borrowers should continue to be open for simple revenue-generating projects, while the loan product mix with more complex projects should be offered to more mature local governments.

- **Expand the role of the Local Government Academy.** The role of the Local Government Academy in training municipal officials should be expanded from training at the project level (preparation, financing, and implementation) to building capacity to plan and implement a citywide infrastructure investment program and manage rapidly expanding urban areas. For example, Santa Rosa faces a tremendous challenge to meet the sharp increase in demand for residential and nonresidential land and all types of infrastructure services resulting from large multinational firms moving into the area. The academy should also expand its dissemination program, whereby the experiences accumulated by local governments graduating from MDPs can be shared with newcomers. Mayors and senior officials of Bauan and Pulilan, for example, are already serving as lecturers in academy seminars, but a more proactive program such as twinning could be effective.

- **Reduce disincentives for local revenue generation.** The increase in the revenue sharing ratio to 40 percent, as part of the revised Local Government Code, has dampened the incentive to generate local revenues. To reduce this disincentive, the audit recommends (1) the introduction of matching grants, above the standard budget allocation, tied to the level of local revenue collection or successful cost recovery; (2) continued support of the RPTA program to capture tax revenues from the rapidly rising property values, in particular from the expanding nonresidential tax base in fast-growing municipalities; and (3) the introduction of a presidential award system according to the level of financial autonomy, measured by the ratio of
intergovernmental transfers (revenue sharing) to total municipal revenues. For the four cities visited by the audit mission, this ratio was: Bauan, 16 percent; Santa Rosa, 23; Pulilan, 49; and Butuan City, 79.

- **Private sector participation in maintenance and contract management.** To make the project achievements sustainable in the absence of recurrent budget funds for maintenance and technical personnel, municipalities should consider contracting out maintenance activities to private firms, possibly based on user fees. Contract management or other forms of private sector participation could also be adopted to protect the financial viability of MDP-financed economic enterprises such as public markets, bus terminals, and slaughterhouses. Mandaluyong City in metropolitan Manila has been using a management contract arrangement for its public market, and Santa Rosa is considering such an arrangement for its market.
ANNEX 5: PUBLIC MARKET SURVEY QUESTIONNAIRE OF STALLHOLDERS AND SMALL ENTERPRISES

Time and Date: ______________________________
Name of Interviewer: __________________________

A. Classifications
A1. Identification Number: ____________________
[first number is for municipality,
followed by the serial numbers]
1. Pulilan
2. Guiguinto

A2. Classification by business type:__________________________
[first three categories are for stallholders]
1. Meat, poultry, and fish
2. Fruits, vegetables, and grains (rice, corn, etc.)
3. Manufactured goods (clothing, toys, kitchen wares, etc.)
4. Business enterprises outside the market

A3. Name of stallholder or business enterprise:__________________________
Stall number: ______________________________
Telephone number, if any: ____________________
Name of respondent: __________________________
Position of respondent, if not owner: ____________

B. Location Choice
B1. When did you start conducting your business at this location? 19

B2. Did you move here from another location?
1. Yes
2. No

B3. If yes, where was your previous business located?
Name of the subdivision (neighborhood):

B4. Why did you choose this location?__________________________
[pick the most important reason]
1. Availability of space
2. Accessibility to customers
3. Close to your residence
4. Good transport access
5. Safety
6. Others, please specify:

C. Products and Services
C1. For stallholders: what goods do you sell?__________________________
For business enterprise: what kind of business is your enterprise engaged in? [For example, gas station, bank, restaurant, taxi company, pharmacy, etc.]

C2. If you sell goods, where do your goods come from? [please give a rough percentage distribution]
1. From this municipality
2. From this province
3. From outside this province
Total 1 0 0

C3. Who are your customers? [please give a rough percentage distribution]
1. Residents of this municipality
2. Residents of this province
3. People from outside this province
Total 1 0 0

D. Employment
D1. How many people are working here, including yourself? ____________________ persons

D2. How many are members of the owner’s family? ____________________ persons

D3. How many are female workers? ____________________ persons

D4. How many hours do they work per day?
Owners ____________________ hours
Helpers ____________________ hours

D5. On average, how much do you pay per month?
1. For manager/caretaker ____________________ pesos/month
2. For helper ____________________ pesos/month

D6. How much do you spend in kind [meals, transportation, and other] per person per month?
1. For manager/caretaker ____________________ pesos/month
2. For helper ____________________ pesos/month
E. Commuting

E1. Where do you live?________________________
   Name of your subdivision:________________

E2. How do you come to work?
   1. Walk  4. Tricycle
   2. Jeepney 5. Private car
   3. Bus  6. Other, please specify__________

E3. How far is your residence from your workplace? _______ kilometers

E4. How much fare do you pay?
   One way? __________ pesos
   Two ways? __________ pesos

E5. How long does it take to come to work one way? _______ minutes

E6. Has the traffic condition improved or become worse since you moved here?
   1. Improved
   2. Remained the same
   3. Became worse

E7. Do you have a plan to move your residence near your workplace?
   1. Yes
   2. No
   3. Already near
   If yes, is it easy or difficult to find a place near here?
   1. Easy
   2. Difficult

F. Sales and Expenses

F1. Please give your best estimated amounts for the following items without looking at your accounting books. Please convert all items into monthly values in pesos per month. [note: the first year should be the same as the answer to question B1 above]

   First Year 1998
   a. Monthly sales
   b. Purchases of goods and materials
   c. Wages and other benefits
      (transportation, meals, etc.) paid for all employees
   d. Rent paid for stall or shop
   e. Property taxes
      (for enterprise only)
   f. Interest payments on loans
   g. Electricity
   h. Water
   i. Garbage collection
   j. Communication expenses
   k. Delivery costs
      (both buying and selling)
   l. Any other expenses; please specify
   m. Total expenses (in 1,000 pesos)

   F2. Roughly how much monthly income do you (stallholder or business enterprise) make per month after paying all expenses?
      First year: __________ pesos per month
      1998: __________ pesos per month
      If B2 is “yes,” monthly income at previous location: __________ pesos per month

Note: Sections G, H, and I are for stallholders only.

G. Public Market Facilities

G1. How much was the goodwill payment when you moved in? __________ pesos

G2. How did you pay your goodwill money?
   [pick the most important source]
   1. Your savings
   2. Borrowed from a bank
   3. Borrowed from relatives and friends
4. Private money lenders
5. Other, please specify ____________________________

G3. How many stalls do you use now? □
   1. When did you start using the second stall? 19 □
   2. When did you start using the third stall? 19 □
   3. If you have one now, when do you expect to have a second stall? 19 □

G4. Do you have a plan to establish your own business place outside the public market?
   1. Yes □
   2. No □

G5. If yes, when do you expect to move to the new place? 19 □

G6. How was the quality of the following services in the market when you moved here and now?
   [note: the first year should be the same as the answer to question B1 above]
   Excellent = 1; Good = 2; Fair = 3; Poor = 4; Not Applicable = 5
   First year 1998
   a. Electricity □ □
   b. Water □ □
   c. Telephone □ □
   d. Police protection □ □
   e. Fire protection □ □
   f. Garbage collection □ □
   g. Sewerage and drainage □ □
   h. Public toilets □ □
   i. Ventilation □ □
   j. Storage □ □
   k. Parking space □ □
   l. Driveway □ □

H. Household
H1. How many people are in your family? □ □ persons
H2. How many members of your family work? □ □ persons

H3. Are you the main income earner?
   1. Yes □
   2. No □

H4. Have your family's living conditions improved since you started business here?
   1. Significantly □
   2. Moderately □
   3. No change □
   4. Became worse □

H5. Did you begin to have a maid and/or househelpers since you started business here?
   1. Yes or hired additional househelpers □
   2. No □

H6. If yes, how many?
   □ □ persons

H7. How much do you pay her/him per month?
   □ □ □ □ pesos/person

I. Opinions about the Public Market
I1. Are you satisfied with the marketplace?
   Very satisfied = 1; Satisfied = 2;
   Not satisfied = 3
   □ □ □ □ □ □ □ □

I2. What are some of the problems that could be improved in the market?
   [list three in order of importance]
   a. ______________________________________
   b. ______________________________________
   c. ______________________________________

I3. Is there a need to expand the market?
   1. Yes □
   2. No □

I4. Do you belong to a market vendor's association?
   1. Yes □
   2. No □

I5. How much in fees do you pay to the association per month?
   □ □ □ □ pesos/month

I6. What services does it provide for you?
   [list three in order of importance]
   a. ______________________________________
   b. ______________________________________
   c. ______________________________________
Note: Section J is for business enterprises outside the market.

J. Capital Investment

J1. How large is their total floor space?
   □□□□ square meters

J2. Do you own this place or rent?
   1. Own □
   2. Rent □

J3. If you own the place, how much did you pay for this space when you moved here? [the year in question B1]
   □□□□ 1,000 pesos per square meter

J4. How much will you get if you sell it now?
   □□□□ 1,000 pesos per square meter

J5. If you rent, how much do you pay per month?
   □□□□ pesos per month per square meter

J6. How much did you spend to set up your business and improvements (i.e., investment for facilities, equipment, etc.) since you moved here?
   □□□□ 1,000 pesos

J7. Do you have a plan to expand your business at this location?
   1. Yes □
   2. No □

J8. What is the price of land at this location now (1998)?
   □□□□ pesos per square meter

J9. How much was the land price when you moved here? [the year in question B1]
   □□□□ pesos per square meter

K. Other general comments on problems, and suggestions for improvements regarding any aspects of your business conditions or surrounding areas.

________________________________________________________

________________________________________________________

________________________________________________________

K. Comments by interviewers on any problems encountered or any unusual information to be noted.

________________________________________________________

________________________________________________________

________________________________________________________
Chapter 1

1. This study looks at only MDPs that included a municipal (or urban) development fund component.


Chapter 3

1. Evidence of improved property tax collection resulting from MDP improvements to property cadastres in Brazil was also examined, but little was found to support this link. Cadastral improvement rarely went beyond modernizing the register in city hall; much of it failed to lead to effective broadening or deepening of collections. More comprehensive packages of technical assistance—notably those including direct efforts to improve collection—were found to be more effective.

2. Through the initial shock of contact with an MDP project, local mayors in Rio Grande do Sul were more ready to embrace betterment charges, which for many of them constituted an unfamiliar financial instrument, although one that gave them easier access to project finance.

3. By contrast, all MDP participants in Rio Grande do Sul that collected betterment charges in 1990 still collected them in 1996 and were joined by 14 more municipalities by the latter year. Thus, by project completion in 1996, 83.3 percent of participants in Rio Grande do Sul were collecting betterment charges. The equivalent share for Paraná was 41.8 percent.

Chapter 4

1. This chapter is based on a report prepared by Jeanette Lontra in March 1998 as part of this study, under the supervision of Aurelio Simon (PIMES 1998). The terms of reference for the telephone/fax survey were prepared during the audit mission in December 1997. Roy Gilbert coordinated the survey work and did translation and editing. Sextilio Giacomini, Aldino Dick, Janise Benneet, and Neusa Cunha of the PIMES team participated in earlier stages of the work. This task was undertaken fully by the PIMES team, without any financial support from the Bank. Marco and Rodrigo Gonzalez and Hector Hernan Osorio conducted participatory evaluation workshops as part of the audit mission in Novo Hamburgo and Sao Jose dos Pinhais, respectively.

2. The municipalities were: Alegrete, Arroio dos Ratos, Bento Gonçalves, Boa Vista do Buricá, Butiá, Cacique Doble, Campinas do Sul, Candido Godoy, Caseiros, Carazinho, Chapada, Constantina, Dois Irmãos, Dom Feliciano, Doutor Mauricio Cardoso, Erebango, Erechim, Farroupilha, Independência, Jacutinga, Nova Hartz, Novo Hamburgo, Parobé, Santa Rosa, São Borja, and São João da Urtiga.

Chapter 5

1. This chapter is based on the results of a survey of public markets conducted by Cirrus Research and Software under the direction of Mari-jo Luciano and under the overall supervision of Millie Villar and Vic Ignacio of the Central Project Office. Cirrus administered the field survey, prepared the data, and produced the statistical results. The questionnaire (Annex 5) was designed jointly by the study teams in Washington and Manila.

2. The first MDP loan for the public market was for 6.7 million pesos; the second was for 4.5 million. The public market project has been self-financing and has a perfect record for meeting its loan repayment schedule. The mayor would like to pay off the loan balance in advance. The market has generated net annual income (after expenses) of more than 2 million pesos since 1994 and has contributed to municipal revenues. In 1997, the public market operation had a budget surplus of 3 million pesos (total revenues of 6 million, less total expenditures of 3 million). According to estimates produced by the Central Project Office, as of 1995 its financial rate of return was 27 percent and its economic rate of return was 29 percent. The latter would have been higher had the indirect benefits to the stallholders been taken into account.

Annex 1

1. Most new municipalities were very small. There were 48 new municipalities in Paraná (average population 8,090). In Rio Grande do Sul, 20 participated in the project (average population 5,545) and another 72 did not (average population 3,929).
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